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INTERNATIONAL RESEARCH CONFERENCE

13TH INTERNATIONAL RESEARCH CONFERENCE

HOLISTIC APPROACH TO NATIONAL GROWTH AND SECURITY

15TH - 16TH OCTOBER 2020

Defence and Strategic Studies

PROCEEDINGS

General Sir John Kotelawala Defence University

13ᵀᴴ INTERNATIONAL RESEARCH CONFERENCE

HOLISTIC APPROACH TO NATIONAL GROWTH AND SECURITY

DEFENCE AND STRATEGIC STUDIES

PROCEEDINGS

General Sir John Kotelawala Defence University

Ratmalana, Sri Lanka

This book contains the Conference Proceedings of the Defence and Strategic Studies Sessions of the 13th International Research Conference of General Sir John Kotelawala Defence University, Ratmalana, Sri Lanka held on 15th and 16th of October 2020. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form, without prior permission of General Sir John Kotelawala Defence University, Ratmalana, Sri Lanka.

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WELCOME ADDRESS

Major General Milinda Peiris RWP RSP USP ndc psc

Vice Chancellor, General Sir John Kotelawala Defence University

Honourable Minister of Education, Professor G L Peiris, the Chief Guest , Keynote Speaker, Secretary to the Ministry of Education, Professor Kpila Perera, Secretary to the Ministry of Foreign Affairs, Admiral Prof. Jayanath Colombage, Deputy Vice Chancellor (Def & Admin) Brig. Nanda Hathurusinghe, Deputy Vice Chancellor (Academic) Prof. Jayantha Ariyarathne, Deans of the respective Faculties, Directors of Centres, Academics, Senior Military Officers, Administrative Staff, Students and all distinguished guests who are connected with us in the cyber space.

First and foremost, let me very warmly welcome our chief guest, Hon Professor GL Peiris, Minister of Education for very kindly accepting our invitation and for gracing this occasion as the chief guest of this inaugural session of our international research conference 2020.

Sir, we consider your presence here this morning, as one of the most renowned scholars the country has ever produced in the field of Law, as a great honour to KDU. Let me also warmly welcome our keynote speaker, Prof Kapila Perera, Secretary to the Ministry of Education, who is having a very close affinity with KDU as an illustrious member of our alumni association.

Then I also welcome Admiral Professor Jayanath Colombage, Secretary to the Ministry of Foreign Affairs, and other distinguished guests and invitees participating on line as well. KDU, from its inception, was instrumental in handing down the core values of security to the development paradigm in Sri Lanka.

This year's theme 'Holistic Approach to National Growth and Security" highlights the importance of maintaining a harmonious blend in security and development in all national projects. As you are aware, this year's conference is taking place amidst very challenging circumstances, so much so that, it becomes a landmark event of KDU in terms of its resolution to ensure the continuity of events at KDU even under the most trying circumstances. And this conference is also significant because the year 2020 marks 40 years of existence of KDU since its inception in 1980.

KDU, initially established as a tri-service academy known then as KDA or Kotelawala Defence Academy, marked a significant diversion in 2008 with its renaming as General Sir John Kotelawala Defence University. Since then, with the guidance and vision of His Excellency the President Gotabaya Rajapakse, as the then Secretary to the Ministry of Defence and the Chairman of our Board of Management, KDU kept a giant leap forward to become a fully-fledged university with nine academic faculties and a University Hospital with state-of-the-art facilities. With this phenomenal change, KDU began expanding its horizon to provide its high-quality higher educational opportunities to civilian students, thereby reducing the burden on other state universities of the country in supplying for the higher educational demand in the country. Today, the University is ready to march forward steadfastly contributing to the national needs combining the national security domain with higher educational needs of the country.

Ladies and gentlemen, KDU international research conference has been attracting local and foreign presenters, participants and more importantly renowned scholars and professionals of the highest caliber both locally and internationally. However, in this year, the global pandemic situation has restricted having them physically present at KDU. But many of our invitees will join us on line to enrich the deliberations through this novel experience of having the conference on a virtual platform.

I reckon that this is a blessing in disguise for us to travel on untrodden paths for new discoveries. KDU IRC has been instrumental in establishing and strengthening the much needed research culture not only at KDU but also in the whole country.

We have been attracting papers from almost all universities, from many research institutions and other organizations representing even Batticaloa and Jaffna, which I reckon is a very encouraging sign. And the impact of the growing research culture was evident during the first breakout of Covid 19 earlier this year, where our staff and students were researching day and night for creating various products and inventions of our own to help the fight against Corona. So, it is heartening to note that in this year's conference, there are many research papers reaching the conference secretariat, which involve the student community of our nine faculties.

Therefore, we are proud that we have created a platform for emerging researchers and scientists for showcasing their research outcomes at KDU research conference. And it is our fervent belief that inculcating and fostering the research culture and enhancing the quality and quantity of research in various disciplines in the country can raise the resilience levels of society and the nation as a whole.

This year's conference has attracted six hundred and fifty plus paper submissions, which I believe is a very clear indication of the right enthusiasm growing in the country towards research, particularly in development and security domains. So we are proud as a university to be able to stand up resolutely to fulfill the needs of the nation, especially at a time when such efforts are very much needed. I believe the efforts of security-based education aiming at strengthening national development should be more cooperative in the future and KDU has always facilitated any research efforts that strengthens the national security of our nation. We urge the academic community of Sri Lanka to join hands with us in all our future endeavours to support the nation especially through productive research in diverse disciplines.

The organizers of the KDU international research conference intend to set the tone to initiate more collaborative research at national and global levels. This research conference is an ideal platform to make connections. I hope that authors of KDU and various other local and international universities will take the opportunity to interact and develop friendly relationships, establish networks and to explore win-win situations.

I wish all the very best for the presenters and hope you will enjoy every moment of this academic fusion taking place on two whole days.

Finally, let me once again welcome our chief guest and the keynote speaker on behalf of all KDU staff. I wish that presenters and participants would have all the courage to continue their pursuits with determination to link up with the international community and work towards national growth and development through their research.

Thank you.

CHIEF GUEST'S SPEECH

Prof. GL Peiris

Honourable Minister of Education, Government of Sri Lanka

Major General Milinda Peiris, Vice Chanceller of the Sir John Kotelawala Defence University of Sri Lanka, Admiral Professor Jayanath Colombage, Secretary to the Ministry of Foreign Affairs, Professor Kapila Perera, Secretary to the Ministry of Education, Deputy Vice Chancellors, Deans of Faculties, Heads of Department, members of the staff and students at this university, friends well-wishers, ladies and gentlemen. I am delighted to be present with you on this occasion for the 13th International Research Conference. I am no stranger to these surroundings. I have been consistently associated with your work during the progress of your university until you have reached the stature that we all are proud of at this time. There is no doubt that with the nine fully-fledged faculties that you already have and your plans further to expand this university particularly bearing in mind the priorities of this country at this moment. I am particularly happy about your plans for the establishment of a Faculty of Criminal Justice. I think that is certainly an area that is worthy of focus and attention. So, you have always assessed, evaluated very accurately the needs and priorities of our country in the field of Higher Education. And you have been very quick to respond to those needs. That innovative approach is much to be admired. And these are among the reasons why I have particular pleasure in joining you in these deliberations. There is one another matter that I would like to mention. It is this that you are having this conference for the 13th consecutive time. It is our experience in this country that many good things are planned and inaugurated. It is much more difficult to follow through. So the fact that you have been able to do this without interruptions for 13 years adding to your

expertise as you go alone improving and expanding towards what you are attempting. It is greatly to be admired the sense of perseverance and determination that is greatly required in this country at this moment and your performance is an inspiring example of what we all need to carry the country forward to even greater heights.

Now the theme that you have chosen for this 13th International Conference is extremely appropriate from many points of view. You have heard representation from many countries as Major General Milinda Peiris, Vice Chancellor explained a moment ago. You are holding this conference in exceedingly challenging circumstances. Again, you have been to adapt to difficult circumstances. You are resorting to modern technology to include and involve foreign participants in these deliberations even though they are unable to present with us physically on this occasion. The topic that you have chosen is the holistic approach to national growth and security. I think that is extremely relevant to present day needs in Sri Lanka today.

The first point I would like to make is that there is an intimate connection between national growth and security. It is fanciful to talk of any kind of national growth without the assurance of security. Security is a necessary and indispensable foundation. Without security it is impossible to achieve growth in any sector of the economy. The celebrated Political Scientist the late Professor Harold Laski of the London School of Economics said that the basic duty of a state is to provide security for its people. That is the ultimate reason for the existence of the nation state. The theory of the Social

Contract which has been developed by writers like Lock and Rousseau emphasizes the fact that the public have given the authority to state principally for the reason to create conditions in which life can go on in an orderly and frank manner so that the citizens of that state can realize their fullest potential as human beings, develop themselves and develop the community in which they live. In order to do this the essential condition is security. Without it nothing at all can be accomplished. Now we have seen empirical evidence of this in the recent past of our country through the 30-year conflict with the Liberation Tigers of Tamil Eelam. It was impossible to attract substantial investment into this country. Every facet of Sri Lanka's economy suffered grievously during that period. How can you attract investors into a country which has been thrown asunder by a ferocious war? Investment, international trade all this was affected by the ongoing conflict. I would also like to make a reference to the concept of reconciliation which became very relevant and important after the end of the war in 2009. There was then naturally the feeling that we have to leave the pain and anguish of the war behind us. We have to emphasize unity and the solidarity and bring together all the people of our cherished land irrespective of caste, creed, ethnic or religious identity to emphasize the oneness of the nation. That was the pith and substance of the concept of reconciliation. But it all went wrong during the *Yahapalana* administration of 2015 to 2019. And it is worth examining in an objective spirit the reasons why that endeavour failed so miserably. I think the basic reason is that the authorities at that time forgot the sentiments, the feelings and aspirations of the majority community. Reconciliation of course bases emphasis on minority aspirations to make them comfortable, to convey to them in definite terms the impression, the conviction that they are very much part of the country. They

belong, the sense of belonging so that confidence should be imparted to minorities, and at the same time, it is absolutely necessary to carry the majority community with you. If you lead them behind if you engender in the lines of the majority community that they are not important, they can be side-lined, they do not matter, such an exercise in reconciliation is doomed to failure as empirical experience in those 4 years convincingly demonstrated. What happened during that period? I think the most alarming spectacle that we are seeing in this country today is evidence that is transpiring in daily basis before the Presidential Commission that is going into the catastrophic phenomenon of the Easter Sunday Attack. Evidence has been given by one witness after another, the Inspector General of Police, the Secretary to President, the Secretary of Defence, all these people. Their evidence emphasizes the total breakdown of this security apparatus in the country. It is not mere debilitation or weakening of security apparatus it was total collapse of it. There was no security apparatus functioning in this country at all in any realistic sense. So, it led to the loss of 265 valuable lives of this country and crippling of many other citizens of our land. Why did this happen?

When the present President, His Excellency Gotabaya Rajapaksa was Secretary to the Ministry of Defense, there was a very close collaboration between the intelligence arm and immigration. Whenever an application was made by a foreign preacher somebody who wants to come and teach in this country, when visa was requested a very thorough background check was done. As Admiral Professor Jayanath Colombage would bear witness the antecedent of the person applying for the visa was thoroughly examined. And if there was anything unsavory in the past of that person, if he has been involved in any activity which led to

disharmony among communities, then the immigration authority in close consultation with the intelligence arm would turn down such a request for visa in this country. That whole apparatus was consciously and deliberately dismantled. It did not happen unwittingly or inadvertently. It was deliberate government policy. So intelligence personnel were made to feel that they were in embarrassment. The less that heard from them, the less they were seen the better. That was the environment which prevailed at that time.

Surely, if you are talking of national growth and security, the first thing to ensure is that funds that are coming from abroad had to be brought into the country through proper channels. We have in this country such an established conduit. The conduit is the External Resources Department of the Central Bank of Sri Lanka. Of course, resources are welcome. But they must come through the External Resources Department. We must know the source, the origin of these funds and where are these funds coming from? We must know the purpose for which these resources are going to be applied, who is going to manage these resources? There must be an auditor accounts. All of these were dispensed. You had a situation where a university was built. What is the purpose for a university to come up in Kattankudy. The facilities, the buildings that are constructed, they are better than the buildings that you have here at the Kotelawala Defence University. They are superior to the quality of the infrastructure in the universities of Colombo and Peradeniya. If you go to Kattankudy blindfolded if the blindfold is taken off when you get there, you will feel that you were in the Middle East. The Palmyra trees, the architecture the overall environment. The sums of money involved are colossal. There is no exposure, visibility or accountability. It is that brought about a situation that culminated in the total collapse

of this security establishment. Madrasas can be all over the country. There are no Sunday Schools. They are providing many of them on daily basis. Nobody examines the curricula. There is no regulatory mechanism at all. So the seeds of racial hatred are sown by those institutions. Of course, there must be freedom with regard to imparting instruction. But clearly there must be some supervision, some control, some regulation. That was totally lacking. So, the country then paid the supreme price for the neglect of security in pursuit of narrow and patient and political objectives to placate aggressive minorities, not law abiding members of minority communities, but people who were intent on the destruction of the very social fabric of the country. So that was our sad experience.

This is true not only within the country, but also in the conduct of our foreign relations. What happened there? Sri Lanka is unique among the nations of this world in committing to a resolution in 2015 in the UN Human Rights Council. Sri Lanka became a co-sponsor of a resolution in condemning its own armed forces accusing its armed forces of the gravest crimes under international law and under the international humanitarian law because the preamble to resolution 13/1 of the 1st of September 2015 acknowledged with appreciation the report of the High Commissioner for Human Rights. And the High Commissioner's report makes the most damaging allegations against the armed forces of this country. And the government of Sri Lanka endorsed all of them and called for a thorough investigation at the international level. The resolution gave responsibility to the Human Rights Council and to the Commissioner for Human Rights to keep Sri Lanka under constant review. So here was a government which consciously, voluntarily, deliberately submitted the country to adjudication and assessment in respect of its armed forces to international tribunals

where justice considered the inanity of what happened. There were pledges given. In resolution 13/1 and 34/1 which are clearly contrary to the highest law of this country, the constitution of Sri Lanka operating para 6 of the first resolution 13/1 recommended that foreign judges of Commonwealth and other foreign judges should be entrusted with the task of judging our armed forces and of course, members of the civilian population. This is not possible under Sri Lanka's constitution because foreigners cannot exercise judicial power in respect of our citizens. And then the High Commissioner for Human Rights, Prince Hussein publicly conceded that in respect no other country has a Human Rights Council based in Geneva adopted so intrusive approach – so intrusive, interfering directly with domestic policy in that country. To what extent did this go? The resolutions involved matters which are clearly within the domain of the Sri Lanka's parliament not the business of foreigners. It called for constitutional reform. It called for devolution of greater powers to provincial councils. It called for thorough overhaul of Sri Lanka's armed forces and the police. It called for the repeal of the prevention of terrorism Act and its replacement by alternative legislation. Members of the Sri Lankan armed forces and the Sri Lankan police force were to be subjected to special criteria when they applied to join UN Peacekeeping forces abroad and even to enroll for programmes of training. So this is the extent to which national dignity and pride was compromised in order to placate foreign interests whose aims and objectives were incompatible with the well-being of this nation.

So this attitude which destroyed the very foundations of our national security manifested itself both in respect to domestic policy and the conduct of country's foreign relations during that period 2015 to 2019. In such a situation you cannot possibly have

national growth. You cannot have economic advancement because security has broken down entirely.

Just one another point I want to make before I conclude, and that is the reference to militarization in the current political discourse. Non-governmental organizations and elements of the opposition as well as some prejudiced and biased foreign commentators are finding fault with the role of the military in the conduct of national affairs in Sri Lanka at this time. But no objective observer of the Sri Lankan scene can doubt the fact. When it came to the control of COVID-19, this country could not possibly have achieved what it did without the vigorous involvement and cooperation of the armed forces, particularly the intelligence arm. We were able to control the pandemic because the armed forces were able to identify those who have been infected, first the immediate circle and then the outer periphery. That is still being done, yesterday today it is being done. And the role of the armed forces is indispensable. Without them the situation would be far worse than it is. Why is there this kind of hostile attitude towards armed forces? I think people who subscribe to that point of view failed to distinguish between the culture of east and west in this regard. Cultural attitudes, assumptions and values are in critical significance in this area. The attitude in this country, the attitude of the public, of ordinary people, to the armed forces is not what prevails in some western countries. The armed forces are not looked upon with fear. They are not regarded as instruments of oppression. On the contrary, after the war ended in 2009, it is in effect the armed forces, they got involved very intimately, very vigorously in uplifting the social conditions in the people affected in areas. They built houses. They made water available. They played a role in restoration of agriculture. And I know personally because I have seen in

my own eyes that armed forces of this country even helped in the constructions of latrines, of toilets in that part of the country. These are not regular functions of the armed forces. But because of the culture of our country the social morals the value system based upon empathy and compassion which is the hallmark of Sri Lanka's culture. That was the nature of the role that was performed by the Sri Lankan military. It is this fundamental fact that is not taken into account. In critiques of the present scene who find fault with the armed forces forget their involvement in national activity on broader scale.

So these are some of the remarks that I would like to make to you on this occasion. I am very happy that you are having this 13th International Research Conference. I am very happy that you have chosen a topic that is extremely appropriate. You have chosen a more relevant topic for this time. As the Minister of Education also with the responsibility for higher education in this country, I am very proud of the achievements of your institution, what you have been able to accomplish within so brief a time span. The needs of higher education in this country are very urgent when more people are clammaering for access to higher education, in our ministry, with the active system of Professor Kapila Perera who is rendering a yeoman service in that regard, we are trying to bridge the gap between education and employment opportunity. We are talking to the major Chambers of Commerce they provide the jobs in the private sector to ascertain from them the employment opportunities that will be available in their institutions during next three or four years, what are the skills which we are looking for? Because they are telling me it is not that we

do not have jobs to offer. We have jobs. But when we interview people we find that they don't have the skills which we want in our institutions. So we don't want to enhance a reservoir of angry and frustrated young people. We want to ensure that there is a co-relation between the education that is imparted in our institutions and the skills for which there is an identifiable demand in the market place. So these are some of the adventures that we have embarked upon. We are also looking critically at our curricula which are obsolete and anachronistic. They have not been revisited for a very long period. There must be in line with the needs of our society methods of teaching. There is far too much emphasis on rote learning in memory that students have required to commit their notes to memory, retain in the memory and reproduce it at the examination that is antithetic of the education. Education comes from Latin words '*educate*' which is draw out not to force in vast volume of actual material into mind of the students. So purpose of the education is to develop the analytical and the critical faculty of the student to encourage him or her to think for himself or herself and apply that volume of knowledge to face the challenges of life. So in the midst of all of this, in confronting the formidable challenges, I am very confident that your institution, Sir John Kotelawala Defence University will render an invaluable service. So I congratulate to you on your achievements of the past and I wish you well for the future. I know that you will continue to do your country proud. And I thank you sincerely for the honour that you have bestowed upon me by inviting me as the Chief Guest for these deliberations.

Thank you

KEYNOTE SPEECH

Prof. Kapila Perera

Secretary, Ministry of Education, Government of Sri Lanka

Ayubowan! Wanakkam! Assalamu Alaikum! The Vice Chancellor of General Sir John Kotelawala Defence University, Major General Milinda Peiris, the Chief Guest today my honorable Minister, Ministry of Education, honorable Professor G.L. Peiris, Deputy Vice Chancellors, Deans of the Faculties, Heads of the departments, the Secretary to the Ministry of Foreign Affairs, Professor Admiral Jayanath Colombage, all the foreign participants who are joining this 13th International Research Conference at KDU, all the presenters, moderators, session chairs and all the distinguished invitees. Thank you very much for inviting me to deliver the Keynote Speech under the theme 'Holistic Approach to National Growth and Security.' I am indeed honored and privileged to be here having witnessed the very first one 13 years ago, and it happened to be General Milinda Peiris who was the Vice Chancellor then as Major General and we witnessed the presence of the Chief Guest as the Ministry of Higher Education, Ministry of Research and Technology.

I would like to start with this quote from the Chief Guest, "We do not want to have a reservoir of angry uncontented people." I was one who had gone through in 1971, of course not in the country in 1988 -1989 and then in then 1983 as a university student, and many times during my academic career where there were disruptions to education, holding back the desire to fulfil or acquire knowledge with my colleagues, peers and the rest of the people due to the lack of security. I know how I felt then as a student. I think I was in grade 4 in 1971, and then in 1983 in my second year at this very same premises, the education of ours were disrupted. And

the feeling of those delays due to the lack of security, and the Cheif Guest elaborated in deep sense of comprehension how security is important for the national growth. If I look at what is this traditional approach that is often based on defensive security policies as we had during my time at different ages. We had always defensive security policies. However, the persistence of strong security measures generates inecure feelings. I hope you agree with me. If there are strong security measures that generate insecure feeling as it reveals the presence of threats. So these are some of the things that people quote. Then again the democracy, well-being and freedom are some of the elements that we feel that we reduce this feeling of insecurity by reducing both threats and activities that we feel. Even if you take a house if you feel this insecureness due to lack of security this might not allow you to think, generate analytical skills. You are always worried about the security. How to provide security to your children and for yourself? And then it hinders, and it slows down entire process of nurturing, acquiring knowledge. And then that it is halting the growth. So, you start from the small households or individuals then if you take as a whole family, a village, a township and then provinces as a country, it basically retards the national growth. So, therefore, we need to have this thinking of holistic approach to national growth and as you and I understand there are necessary and essential conditions when we learn mathematics for certain things. The Chief Guest emphasized repeatedly the essential elements and in our academic mathematics there are sufficient and necessary conditions or essential conditions for forming mathematical theories there are certain

things. Likewise, it is essential to have security for national growth.

When it comes to economics, always and even for decades, the GDP strongly criticizes the measure of development. Still the role of economic systems neglecting the goal of global capabilities and expansion holds this economic growth or national growth. But the concession of development based on the glorification of individual success and the pushed capital accumulation hardly allows reducing insecurity and increasing freedom. So security becomes an individual good and relies upon ineffective defensive policies that we have practiced in the past unlike in the present. So development, well-being, security and freedom are strictly interrelated. Individual capabilities imply collective capabilities. Even in free market economies often human needs such as food, housing, employment, health care, family policies, fresh water, security, and safety can be put in a market under regulation or collective governance, and those things even the Chief Guest highlighted. The need for water, need for food, how the security-- food security and water security ensure the getting this national security when you combine all these types of security the national growth under war conditions. So, these goods are often under political debate as they are critical for development and social cohesion. The more they are shared among the large part of the population the less we experience social conflict and political instability. Security hardly is achievable individually. It is the result of more holistic thinking. Individual security and freedom imply the security and freedom of all. As I mentioned before these are interrelated. And if you look at or if you study research and in future research all these studies can help in understanding human capabilities and pathways towards collective security and enhance development. So instances of participation in definition of

security needs would make citizens able to feel at the center of development goals. So therefore, unlike in the past where we did not think holistically and the interrelations between the security and the national growth. Then we will fail. Even the theory in the literature highlights this one.

As far as Sri Lanka is concerned the contemporary security concerns that we face as an Indian Ocean country are broader and more complex, that need not be elaborated, than any state in our history. This will continue to exist. We can't say that this will stop today, tomorrow, next year or in ten years' time because the geopolitics and the race for the arms business and economic development, all these things will continue to grow, sometimes exponentially. So therefore, national security cannot be neglected and cannot be just let it go as the Chief Guest mentioned, even in a fraction of a second, it is very important. Otherwise, there won't be any growth. As the Secretary to the Education, in the present context the role played by ensuring a secure environment for the student to go and sit the examination. They are not in a position to concentrate on answering the questions if the place is not secure. So, if we are not able to hold the exams and continue to postpone, then we cannot achieve and we cannot predict national growth. So, in this context the role played by the national security is to be commended as the Ministry of Education. I know personally the quick response to ensure secure examination centres for all of us for the future of Sri Lanka. Under these conditions even the identification of COVID origin in the recent past, you have to have peace of mind to concentrate on everything. That is basically if you only think of one place, one center out of 2,646 examination centers, then there will be lack of security in different centers. So therefore, you have to think holistically. Only the one aspect of securing one place will not enable for us to continue

this one and therefore the results will come in future in terms of national growth. So, the range that concerns arise from threats to system that allows society to control intergroup and interpersonal conflict to more recently reorganized concerns associated with threats to social and economic systems. Once these events start to influence the policy and the economy of a country with a national resilience, that country will perish. One way of addressing this emerging situation is by promoting more and more research and development.

KDU, boasting with diverse nine faculties and through two new faculties to come, the Faculty of Criminal Law and the Faculty of Technology, is going to expand and provide opportunities and platforms for you to think, ponder in a military environment and inviting day-scholars giving the signal that is very important for you to mix each other understand the role of the military or security for the civilians, 22 million people in this country, how important the national security and the training in a military set up to achieve the common goal of national growth. So the KDU is at the forefront of researching the development and security related problems holistically. A holistic approach is needed to understand contemporary complex situations and circumstances. University education could inculcate co-values of security and development such as human dignity, integrity, democratic participation, sustainable development, economic equity, mutual understanding and respect and equality of opportunity. The three flags that are behind bring all three forces together, thanks to the KDA then, and how important this mutual understanding in the war was understood and it helped to coordinate things in a better manner. You trained officer cadets together and they understand the security roles in the air, at sea, on land. I am sure that it could have been the catalyst then.

Now you bring the third aspect the day-scholars. So, this is holistic thinking. Like I started at the beginning it was not there then. We had three academies that did not know each other, but how had it come during the time when the national security was at risk. So ultimately the beneficiary is national growth. The honourable Minister, the Chief Guest mentioned how difficult it was for Sri Lanka to attract foreign direct investments. As I think Minister of Enterprise Development, Foreign Minister, Foreign Secretary. If you don't have security and thrust, nobody would come. But when you train together military and civilians with hand and hand, it would provide an ideal platform. The importance of civil-military relations and how KDU is instrumental in developing the above-mentioned areas is to be commended. By promoting civil-military relations through education, a country could raise the resilience levels, like I mentioned, of communities. Honourable Minister spoke at length and elaborated that you have to have a strong commitment and the political will to ensure the security of this country. If these elements, instruments fail, the first thing that is going to effect is the education of the future generations. Even for me, the Oxford graduate, Rhodes scholar, I am a pupil. And this has provided opportunities and the responsibility to the government to ensure the security. So all spheres of activity will simultaneously grow ultimately culminating in national growth.

These are the few thoughts that I have to share with you. I would like to extend my gratitude on behalf of the Ministry of Education for having me and inviting me to deliver the Keynote address and set the platform for the next two-day deliberations. And I wish all the success in the deliberations and creating more networks and have future directions for years to come in this context of national security that you have chosen today. Whatever that you are going to do, base

national security at the forefront. So divided we lose together we win. And I wish all the very best and thank you very much for all the participants and the people who have submitted papers, presenters, moderators, and session chairs. You are plying a very important role in this context of national security and the national growth.

Thank you very much!

Vote of Thanks

Dr. L Pradeep Kalansooriya

Conference Chair, 13th International Research Conference,
General Sir John Kotelawala Defence University

It is with deep appreciation and gratitude that I present this vote of thanks on behalf of the organizing committee of the 13th International Research Conference of the General Sir John Kotelawala Defence University.

First of all, I convey my heartiest thanks to Professor G.L. Peiris the Minister of Education, a distinguished academic who spared his valuable time with us on this occasion. Sir, your gracious presence amidst busy schedules is truly an encouragement and it certainly added the glamour and value to this important event.

Professor Kapila Perera, the Secretary to the ministry of Education, also a distinguishable academic and a senior military officer is a proud product from our own institute. Sir, I greatly appreciate your willingness without any hesitation to be our Keynote speaker today.

I would also like to take this opportunity to extend my appreciation and gratitude to the Vice Chancellor, Maj. General Milinda Peiris for all his guidance and assistance provided throughout the event and this event wouldn't have been a reality and a great success without your courageous leadership under the current challenging situation today.

I would be falling my duties if I don't mention the exceptional support and assistance provided by the two Deputy Vice Chancellors who were there behind the team guiding us through a difficult time. I also would like to thank the Deans of all the faculties who shared the responsibilities and guided their staff amidst their very busy schedules.

This year's conference has attracted six hundred and fifty plus paper submissions, which is a very clear indication of the right enthusiasm growing in the country towards research, particularly in development and security domains. I take this opportunity to thanks all authors share their studies on National Growth and Security in our conference. I also greatly appreciate our panel of reviewers on the valuable time spent to review this large number of papers. I'm sure that your valuable input would tremendously support the authors on enhancing their research studies.

Ladies and Gentlemen, as you witnessed, this was a new experience in the new normal, after the present pandemic, and therefore it was huge challenge to organize, coordinate and conduct research conference of this magnitude on virtual platform enabling a wider participation of both local and foreign participants. I thank all our participants attending the conference online despite numerous difficulties encountered due to the present situation.

Further, it is with great pleasure that I acknowledge the tremendous support and assistance provided by academic staff of all the faculties with all the Heads of Departments going beyond their regular duties to make this event a success. Similarly, I take this opportunity to appreciate the contribution of the administrative and non-academic staff whose commitment was essentially required in achieving the overall success.

Our sponsors, the financial support given by our Platinum Sponsors, People's Bank and

Bank of Ceylon and Co-sponsor, Abans Private Limited is highly appreciated.

Last but not least the officer cadets and day scholars who formed a very virtual component of the organizing teams in every sphere and I believe that it was a great learning experience and exposure which would help them tremendously in similar undertakings in the future.

Finally, I have no doubt that all of those attending the two days seminar will make the best use of the opportunity to enhance their horizons and establish new bonds and networking while sharing their own knowledge and experience in a friendly learning environment.

In conclusion, let me take this opportunity to profusely thank my co secretaries, who stood alongside me throughout extending unexplainable support and assistance with exceptional commitment.

Thank you so much. I wish you good luck and all the best.
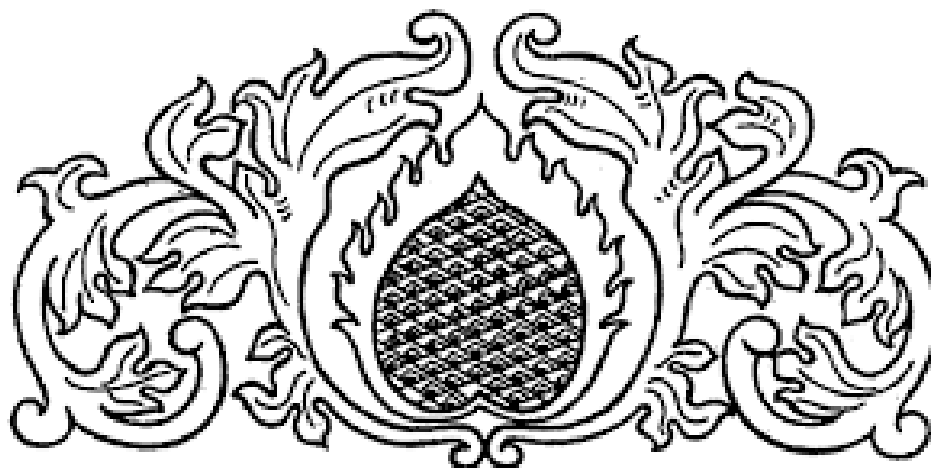
Plenary Sessions

Holistic Approach to National Growth and Security': With Special Refence to Country Perspective

Summary of the Plenary Sessions

First Plenary Session

The 13th International Research Conference was themed 'Holistic Approach to National Growth and Security'. The defence session focused on National Growth and National Security. For the first time in the KDU International Research Conference history plenary sessions were conducted in hybrid medium (virtual & physical) with the participation of both Local and International security experts.

The first plenary session was chaired by Admiral Professor Jayanath Colambage RSP VSV USP rcds psc. The Secretary of the Ministry of Foreign Affairs. At the very inception Admiral Professor Jayanath Colambage introduced the speakers and their respective institutions to the audience. Further he emphasised on holistic approaches to national growth and security.

Maj Gen P R Wanigasooriya VSV USP ndu USACGSC, Commandant - Sri Lanka Army cooperation rather than competition.

The third speaker, Prof. Rohan Gunaratna, Professor of Security Studies, Nanyang Technological University - Singapore. He presented on 'Securing Sri Lanka: The Post-Easter Sunday Threat Landscape in Sri Lanka'. He stated that the Easter Sunday massacre scarred the psyche of Sri Lankans for many generations to come. Te Professor further highlighted the Easter Sunday massacre on April 21, 2019 remains one of the deadliest terrorist attacks outside Iraq and Syria.

As the fourth speaker was Maj Gen Asif Ali, Hilal-E-Imtiaz (Military), Director General, Institute for Strategic Studies, Research & Analysis, National Defence University – Pakistan. He presented on 'Human Security, A pivot for National Growth and Security'. He focused on the Human Security as a pivotal for all programmes and efforts of plans to ensure national growth and security. Further Director General stated comprehensive security is human-centric as compared to traditional security which is state-centric.

Volunteer Force, presented on 'Holistic Approach to National Growth and Security: An Army Perspective'. He explained that a holistic growth requires a peaceful environment and that the Sri Lanka Army, being the land forces engaging with people at the grass roots, has an active role to play in ensuring holistic growth and security of the nation.

The second speaker, Air Marshal Diptendu Choudhury AVSM VM VSM, Commandant – NDC India, joined virtually and presented the Indian defence perspective on holistic approach to national growth and security. The Air Marshal stated that the security challenges of the century are steadily shifting from the realist paradigm of security dilemma of the nuclear age, when national threats led to arms races and military competition to a more contemporary survival dilemma of the information age where the non-military challenges necessitate multilateral

The fifth speaker was Dr Rong Ying - Vice President, China Institute of International Studies – China. He presented on 'Making Sense of China's Security Outlook: Concept and Practice'. He explained China's evolving security concept, challenges or issues facing the concept of security and its practice in the light of changes or transformations. Further, he explained how China and Sri Lanka in particular and the region in general can strengthen security dialog.

As the last speaker of the first plenary session, Maj Gen Muhammad Tahir, Commission on Science and Technology for Sustainable Development in the South (COMSATS), Islamabad – Pakistan presented on 'Holistic National Growth and Security'. He stated that the major flash points which pose grave challenges to peace are Sudan, Mali and Somalia in Africa, Afghanistan, Kashmir and Koreas in Asia Pacific region, Iran Iraq, Israel, Syria, Yemen, Kurdistan and Lebanon in the Middle East and Near East Asia and disputes in the South China Sea.

The first plenary session concluded by the chair with the question-and-answer session.

Second Plenary Session

The second plenary session was chaired by Senior Professor Amal Jayawardane. Department of Strategic Studies, Faculty of Defence and Strategic Studies, KDU. He introduced the speakers and their respective institutions to the audience. Further he emphasised on how holistically approaches to the national growth and security.

The first speaker of the second plenary, Rear Admiral Y N Jayarathna RWP RSP USP psc, Director General Operations Sri Lanka Navy presented on 'An Ocean dependent Growth & Security for an Island Nation: A holistic view of strengths and weaknesses. He stated that the growth & the security of any nation are inter-dependant; no growth without security & no security without a growth either! There is no developed country in the world that had reached the 'developed' status without security.

As the second speaker, Dr Sara De Silva Assistant Professor Military Programme - Abu Dhabi University presented on 'COVID-19 and its Impact on Global Terrorism Trend'. Dr Sara explained how COVID-19 pandemic paralyzed the entire world within a span of a few months. As every state continues to grapple with the consequences of a large-scale pandemic, a significant portion of its national resources have been diverted to prevent the collapse of the national healthcare system, as well as to mitigate the economic fallouts.

The third speaker, Maj Gen (Retd) Dr Shahid Ahmad Hashmat, Former Pakistan High Commissioner to Sri Lanka presented on 'Significance of Peace, Stability and Regional Cooperation for Economic Progress in South Asia'. He stated that peace and stability within a state and its neighborhood, along with economic wellbeing of the citizens, are essential national goals of every nation in the world.

The fourth speaker, Air Vice Marshal *Andrew Wijesuriya,* Director General Engineering – Sri Lanka Air Force presented on 'Fostering Growth by Ensuring National Security – An Airman's Perspective'. He stated that Growth and National Security are mutually inclusive and essential for a country, each facet is dynamic in nature being driven by both external and internal factors and constant review and reform is required to remain relevant and effective to a country.

As the fifth speaker, Mr Shafqat Munir, Head of Bangladesh Centre for Terrorism Research spoke on 'Sustainable Development Goals Implementations in Bangladesh: National Security and Growth'. He discussed about Sustainable Development Goals.

As the final speaker, Prof Harsh V Pant, Director Studies & Head Strategic Studies Programme, Observer Research Foundation - India spoke on 'Post-COVID-19 World Order: An Indian Perspective'. He discussed what is happening to the Global order and showed that there are lots of discussions around post-COVID-19 global order. He further explained the structural reality of the great power politics now, even before COVID-19.

During question and answer session, a number of questions were raised related to the theme and the chair concluded the session after answering all the questions.

Holistic Approach to National Growth and Security: An Army Perspective

Major General P R Wanigasooriya VSV USP ndu USACGSC

Commandant, Sri Lanka Army Volunteer Force

Introduction

The holistic approach to national growth and security revolves around safeguarding national security interests. Hence, the threats to national security are matters of concern to every state and its citizens. The war and internal unrest in a country engage every citizen and hinder the development and national growth. National security is directly interrelated to protecting national unity, territorial integrity and sovereignty of the country, which are essential elements of national growth. Today I will touch upon national security, threats to national security and the means to achieve peace and harmony which is the foundation of the holistic approach to national growth and security.

Although defeating separatist terrorism brought about relative peace there are many local and international challenges the country is facing in the contemporary world. These challenges can threaten Sri Lanka's position as a sovereign nation unless addressed carefully. The Easter Bombing brought in a new dimension to the threats and the dynamics of national security have changed dramatically. Sri Lanka now encounters active and potential threats from multiple sources.

It is not uncommon to see conflicts of interests that lead to dissatisfaction and disputes among nation states in this Volatile, Uncertain, Complex and Ambiguous (VUCA) global environment. Therefore, our bilateral and multilateral diplomatic engagements should also be sound enough to avoid conflicts while the military readiness remains at optimum level to deter threats and face any challenges.

Economic progress and sustainable peace and harmony are built upon a comprehensive National Security environment that enables pursuit of

nation's interests without any impediment. It is the right of any sovereign state to formulate National Security Strategy to protect national interests by considering strategic threat environment. The foremost responsibility that is vested upon the Government and the defense forces is to safeguard the country from potential threats there by creating an environment for sustainable peace and harmony. Let us try to identify few facets of national security and highlight its significance in achieving sustainable peace and harmony in Sri Lanka which is an essential ingredient in the holistic approach to national growth and security.

Understanding National Security

We can define national security as an umbrella of protecting the core values that every nation strives to protect. These values enable people to lead a life on their shared common beliefs by preserving their national identity, sovereignty, economic and social wellbeing. There are many elements that have direct bearing on resilience of a nation and any national security architecture will have to take these into due consideration. These include three constants which are beyond the sphere of our control; geography, demography and natural resources and several other variables such as; national ideology, diplomacy and politics, economy, socio cultural aspects, techno scientific aspects and national security and defense. There are many threats and challenges we face as a sovereign nation.

A. Threats

Threats common to all countries in the global environment include the changing status of global

commons threatens survival of population as well as chemical, biological, radiological, nuclear and explosive (CBRNE) threatens life on earth. The cyber threats can disable, disrupt and paralyze economies and essential services while transnational crimes could make countries unsafe for investments. Climate change and global warming threatens survival of life on earth. While terrorism and insurgency are detrimental for economic wellbeing the religious fundamentalism effects economic and community wellbeing.

There are several other threats manifesting in the Indian Ocean Region. Regional politics can have destabilizing effects on small states. Piracy in the Indian Ocean poses threats to maritime security and being an island nation, we remain vulnerable. Power competition in the Indian Ocean region poses diplomatic risks and threatens economic wellbeing and national security.

There are several threats Specific to Sri Lanka being an Island Nation. The international perception of Sri Lanka as a country is being warped as part of the proxy war which is waged by separatist forces against Sri Lanka. Racism and Separatism spreads hatred and uncertainties among communities weakening the trust and understanding and hence, emergence of terrorism and insurgency remains a looming threat to national security. Potential of becoming a hub of organized and transnational crimes remains a threat due to geostrategic location while drug addiction has an adverse social, health and human security related impacts. Degrading natural environment poses challenges to human security while natural and manmade disasters retard the progress of the country in many ways.

B.   Opportunities.

The geostrategic location of Sri Lanka is not only a challenge but offers many opportunities as well. If we wisely use these opportunities most of the challenges can be reasonably overcome. Important geostrategic location provides Sri Lanka with advantages in the maritime and aviation domains and the global trend towards blue economy and aviation industry are opportunities for sustainable development. Tourism industry has enormous potential for development while the growing service sector provides opportunities for economic development. High literacy educated population and global demand for skill labour remains an underutilised opportunities, and expanding IT literacy in the country, especially among younger generation is an opportunity that needs to be explored. Value addition rather than exporting raw material is an unexploited opportunity and agricultural self-sufficiency is a possible opportunity not achieved yet. Integration of expatriate population and diaspora communities for economic and social development should also not be a missed opportunity.

The Way Forward for National Growth And Security: A Land Forces Perspective

C.   Guard Against Possible Re-Emergence of Separatist Terrorism.

Although the LTTE is physically defeated as a conventional military force by eliminating its top leaders, strategists, and its logistics element, Sri Lanka has not yet been able to politically address and counter the separatist ideology. Hence, re-emergence of separatist terrorism will remain a challenge for the national security until an acceptable final solution is found to the national problem. National consensus in finding a lasting political solution is an essential ingredient for our overall success and wellbeing as a nation. Until a solution is achieved the Sri Lanka Army has an important role to play. We have to continue geographic domination of strategically important areas while denying the separatists the access to their center of gravity, the people, by winning the hearts and minds of the population.

D.   Protect Territorial Integrity and Maritime Security Environment.

Maintenance of territorial integrity and maritime security is a serious national security concern that Sri Lanka being an island needs to be vigilant. The Indian Ocean is rapidly surpassing both the Atlantic and Pacific Oceans as the world's busiest and most critical trade corridor. With the growth in legitimate international commerce in the maritime domain, escalation of criminal activities has also proliferated. Human and drug smuggling, weapons, and other contraband, as well as piracy and armed robberies against vessels, pose serious threats to maritime security. Although tactical and operational role of defending maritime areas fall squarely on Sri Lanka Navy the Army can assist in numerous ways, especially in intelligence sharing and assisting in coastal dominations where necessary.

E.   Contain Foreign Interference in Domestic Affairs.

In today's environment, the possibility of foreign interference in our internal affairs remains a significant National Security concern. Sri Lanka's increasing importance in the maritime domain involves regional power politics. The likelihood of the extra regional powers showing more interest in the region and aligning with one or the other regional contender is a factor that may severely affect national security of Sri Lanka. Hence, these are developments that need to be considered diligently from the point of view of Sri Lanka's national security. These are key concerns for diplomatic engagements of the government. However, the armed forces need to be conscious of these challenges and create a conducive environment for diplomatic effort to progress smoothly.

F.   Guard Against Cyber Security Threats.

Network intrusions are widely viewed as one of the most serious potential challenges to national security, public safety and to economic wellbeing. The new technology adds dynamism to communication including social media and the Internet. We have seen the potential of Internet driven media to destabilize nations and its affects

in the recent past, Arab Spring is just one such example. A segment of youth who are not in education, employment or training (NEET) are the largest community of youngsters globally and locally that engages in activities on the web and they are vulnerable to influences of interested parties and that can pose a threat to national security. These issues need to be deliberately addressed at national level with international cooperation. The land forces need to maintain vigilance and be in readiness for proactive action where necessary both in cyber security domain as well as in mitigating the fall-out effects.

G.   Address Environmental Degradation and Climatic Change.

The climate change increases the occurrence of natural disasters which severely affects national security. Climate change can impact national security ranging from rising sea levels, to severe droughts, to the melting of the polar caps, to more frequent and devastating floods that raise demand for humanitarian assistance and disaster relief. Changes created by a warming planet will lead to new conflicts such as refugees and depletion of resources. Catastrophic natural disasters can also lead to severe disasters like leaks of radioactive material and poisonous gases and all these would require increased support measures which need to be considered in our national security strategy. The military has to be involved not only in mitigating the damage caused by disasters but also in preventive actions such as reforestation, etc.

H.   Mitigate the Influence of Transnational Organized Crimes.

Since the transnational criminal networks cause instability and subvert government institutions through antisocial activity in collaboration with the local underworld, the law enforcement agencies all over the world see that as a national security challenge. These transnational criminal organizations have acquired unprecedented wealth and power through various illicit activities. Even advanced technology of developed countries

is not enough to counter this threat. Sri Lanka must address this by reinvigorating the law and order establishment in a timely manner. The land forces can boost the efforts of the law enforcement authorities by sharing intelligence and ground action when legally called for.

I.   Counter the Effects of Religious Fundamentalism.

Though Sri Lanka proved beyond doubt that terrorism can be defeated with a well-articulated whole government strategy and a well-focused leadership, we are not immune from the threat of religious fundamentalism. The Easter Sunday bombing proved this. Terrorism motivated by religious extremism will pose a considerable threat and the government and all stake holders must work together towards preventing the spread of religious fundamentalism and polarization of society along religious lines. The ground forces including Sri Lanka Army have a major role to play in addressing these challenges with vertical as well as horizontal cooperation with other law enforcement agencies.

J.   Promote Socio-cultural and Political Stability.

The government is accountable to the people and as such, must ensure socio-political stability through good governance by focusing on its purpose and outcomes. It is to achieve peace and harmony among all Sri Lankans, regardless of creed, ethnic origin, and social status. The government and the people must engage in nation-building under the rule of law, constitutional democracy, and the full respect for human rights. Our people need to be harnessed with a Sri Lankan identity transcending socio-economic, religious, ethnic, and linguistic differences. The deployed forces in the field can make a positive impact on the whole government efforts in promoting socio-cultural and political stability.

K.   Protecting Ecological Balance and Enhanced Ability for Disaster Mitigation.

This aspect of national security seeks to support development that is environmentally sustainable for the benefit of the nation and the people who depend on it. As the country sustains its economic growth, there is a clear indication that the ecological balance is being threatened by natural calamities and other man-made destructive activities. The environment, with its life support systems, is in a position to sustain and secure development for the benefit both of the present and future Sri Lankan generations. Ecological balance is a shared responsibility of all Sri Lankans, as individuals, families, and communities. Sri Lanka Army plays an important role in addressing these concerns with preventive actions such as reforestation, coast conservation, etc as well as assisting authorities in disaster mitigation whenever country faces such calamities.

Conclusion

Peace is where there is quiet and serenity, no conflicts within or without. Also we can define peace as a stress free environment, state of security and calmness that comes when there's no fighting or war, everyone coexisting in perfect harmony and freedom. Harmony is when there is resonance and joy, celebration and sharing with others in peace. Sri Lanka as a democratic country is committed to world peace and the preservation of world order. National security is engendered and sustained through harmonious relations with our neighbors and allies. For this purpose, it is for the enduring interest of the country to forge harmonious engagement and relationship with other nations. The country and people must pursue constructive and cordial relations with all nations and peoples, and are free from any control, interference or threat of aggression from any of them.

National Security has a direct impact on holistic national growth and economic development of a state. As a developing country, Sri Lanka has a number of challenges to overcome for long term economic development. We need Economic Stability, and continuous foreign investment and new economic ventures. Development of infrastructure facilities of the country and rural development are also important in the path of sustainable economic development. Above all enhancing domestic security will require national reconciliation and the forging of a common Sri Lankan identity. Ultimately, the best way to ensure that Sri Lanka remains safe and strong in the future is for its citizens to put aside the differences of the past, unite as Sri Lankans, and work towards better future for themselves and their fellow people. All these require peaceful environment Sri Lanka Army, being the land forces engaging with people at the grass roots, has an active role to play in ensuring holistic growth and security of the nation.

Author Biography

Major General Ruwan Wanigasooriya is a career military officer of the Sri Lanka Army who at present serves as Commandant Sri Lanka Army Volunteer Force, Colonel Commandant Regiment of Artillery and Chairman Army Cricket Committee. He is a proud product of Ananda College, Colombo and was commissioned to Sri Lanka Artillery on 24 July 1986 after successful military training in Sri Lanka and Pakistan. During his career, he has served in numerous Command, Staff and Instructional appointments at various levels.

Holistic Approach to National Growth and Security

Air Marshal Diptendu Choudhury AVSM VM VSM

Commandant, National Defence College India

Good morning Ladies and Gentlemen. First, I would like to thank General Hector de Silva and Dr. Premadasa for this Opportunity to speak today. Also like to thank Sqn Ldr Wijesuriya and his team to make this participation possible all the way from New Delhi. I'm privileged. I also wish to Chair; I understand from his CV that he is a fellow aluminate of RCDS. And I would like to wish my fellow panelists a very good morning as well as the audience a very good morning indeed.

I think General Wanigasooriya who started typically this is the advantage of [you know] as keep coming later down the chain of speaking you find a lot more and more aspects which wanted to cover only have been thrust upon. But since it is the beginning, I still have a fair advantage and I do wish my fellow panelists the very best.

As the saying goes May you live in interesting times could not have been more apt to describe our world today in more ways than one. Our world, in recently, was bound together by globalization appears to have been turned upside down by micro scoping virus. This definitely is not mankind's first blush with the last pandemic, but it is probably not since the World War II that we have been faced with such a widespread disaster of the scale and magnitude.

The effects have led to a sharp downturn of economies, loss of lives and livelihoods which have been exacerbated by trade wars, breakdown of supply chains, increased nationalism and geopolitical jostling. As nations jokey for their political interests the concept of national security has evolved into a wider canvas of threats and challenges. While the previous panel just very clearly elicited what national security was all about and how the fundamentals were I will take little steps further by discussing how it has become a widening concept today.

For those who were in uniform, the perception of security traditionally and quite nationally is related to a military binary. But the fact is the security challenges of the 21st century is today of an increasingly non-military construct. There has been a widening of the very concepts of security and peace. Security has become more dynamic, complex, controversial and contested across the world. And consequentially, these on the other hand, has become relative in its character. It is no longer the absence of threat or danger which was once the central to the transactional relation between the citizen and the state. Today the dangers are often beyond and the outside of the state capacity to control or to deal with. Not only have the once separate baskets of traditional and non-traditional threats merged and their boundaries blurred. The proliferation of new challenges of climate change trigger environmental disasters, technology- cyber and digital threats, devastating pandemics have all arrived at the very doorsteps of our homes. The enemy is no longer at the gates it is already inside.

In this milieu, the international environment has come under immense pressure of the changing dynamics. Changes essentially brought about by some key drivers. The first driver of change is increased geopolitical complexity which has come about due to the growing number of independent, international and transnational actors engage in power play across multiple levels. The national, regional and the global levels. This means the actions of state actors, non-state actors and private actors directly or indirectly play a role in statecraft. And their transnational cross linkages directly or indirectly impact geopolitics.

The next is sharp increase the levels of uncertainty in everyday life and of the future. Which has been brought about by the threat proliferation. These

are increasingly being less predictable, arrives from diverse sources and operate under the convenient anonymity.

The last driver is that conflicts or wars are no longer only because to result disputes or contestations. As all measures shorter or equally provide a wider way of coercive options. The current transitional face which the world is going through towards the inevitable changes in the world order and the associated emergence of conditions that we are experiencing today is almost reminiscent of the Cold War. The changing international dynamics have therefore led to shift in the regional contestations and the alignments. The security challenges of the century are steadily shifting from the realist paradigm of security dilemma of the nuclear age when national threats let to arms races and military competition to a more contemporary survival dilemma of the information age where the non-military challenges necessitate multilateral cooperation rather than competition. Despite the initial and understandable surge of nationalism in the face of the COVID-19 pandemic which is visible to all of us there has been an increasingly widespread international realization that no nation can go it alone. The immense loss of lives and livelihoods across the world which has affected all nations and pushed some to the economic disasters as ironically forced them all to police on the grounds of human survival and safety. Similarly, affecting all is the outcome of mankind's apathy towards climate change which was brought up by the previous speaker. In the past decades which is playing out its own course as nature exacts its revenge. As temperature rise there has been unprecedented increase in natural disasters. While the rising sea levels threatening the very existence of some countries the melting ice is also opening up the Arctic waterways which will benefit many. Among all these challenges the world appears to be heading towards an era of competition for control. Control of natural resources including water, control of technology, control of data and information including control of the global commons. There seem these into be the new areas of power contestations which will

play out the own course and sadly in the process raise the risk potential of the world at large.

So, is economic growth keep paradigm? Let's examine this. Among all of these the common underpinning driver for all nations today is economic growth without which none can truly survived. Developed countries are faced with their own challenges of shifting demographics, sustaining economic growth and maneuvering to works favorable realignments whereas developing countries on the other hand are confronted with the added burden of an expanding array of challenges in their efforts to eradicating poverty, ensuring equitable development and removing inequalities while ensuring that democratic institutions remain robust and resilient. The causal link between economics and security I think it is best illustrated by James Harrington, a 17th century English Philosopher who said the source of state power is a balance of economic sources and not divine right or military power. In today's world it has never been more relevant as economics drive national growth. And hence national growth is no longer a mere outcome of trade or commerce but a vital aspect of security. In fact, national growth and national security are complimentary to each other and two sides of the same coin.

However, the defining factor which shapes the quality and quantity of economic aggregates depends heavily on the state's public finances. Increased integration of the national economy into global markets means that national security will unavoidably depend on the stability of the global economy and international financial systems. And the ability to coordinate key national economic policies with trading partner nations. Here the strategic outlook of a nation places a vital role. Not only where, how and with whom you engaged but most importantly the timelines of engagement.

Economic of financial engagements for a short-term political gain may have long-term strategic price to be paid. As it will impact the flexibility of a nation to shape its national security outcomes.

Therefore, national security is no longer a mere a fiscal defense of a state, but defense of financial systems and institutions, defense of trade interests, defends of markets, defense of supply chains, the list is long. The increasing use of trade as a leverage in the current geopolitical construct clearly underscores the interdependency of growth and security.

So, we need a holistic approach. What is the way forward? The widening of the concept of national security to include human security, economic security, environmental security, digital security, information security, cyber security along with traditional security today necessitates states to look at and address all this in holistic manner, overlapping of this individual relevance has naturally led interdependencies to an extend today. It is almost impossible to act on any one aspect of security without some aspects impacting other. This approach will need the government to analyze, strategize, prepare an act comprehensively by integrating all elements of national security. This is extremely hard to do. Getting all stakeholders together is easy, getting them to speak the same language is much more difficult and getting them to agree is almost impossible.

But there is a way out. While it is difficult to break silos, it is definitely possible to proliferate them. Creating cross linkages to connect verticals and every structured level. It is not easy but doable. We also need to realize that the age-old conventional strategic approach of aligning may no longer necessarily provide a roadmap to achieve the desired the outcomes. The binary relationship between the country's development, growth needs, and security needs have to be viewed differently today. In an increasingly aspirational world human growth and development probably assume much more important as geographical security. Therefore, it is getting more and more difficult to find the right balance. The state has to identify the outcomes which are national interest which would need to be followed up as a much more integrated priority to desired outcomes balance in a short medium to long-term. This is

possible. The most difficult part as that we more wants and outcome desired than the resources and the budgets permit. Plans, policies and processes will continuously need to be adopted. Greater horizontal synergy between ministries, stakeholders and public and private sectors today are essential for the government approach. Whereas vertical synergy would be necessary between strategy, policies, plans and execution to achieve the desired outcomes.

So, what does the regional outlook look like today? Quickly sum-up by saying that the emergence of new threats and increasing risk to global security have raised fundamental questions regarding the adequacy of existing international arrangements to foster peace and security. On one hand, we see growing helplessness of world forums such as UN in managing and avoiding conflicts and on the other hand we see growing reluctance on part of traditional responsible past to assume world leadership. Thereby seeding space to ambitious revisionist who disregard rule-based normative world order. Today, more than any other time and more urgently for the turbulent future we face the world needs stronger institutions, stronger commitments, stronger results and most importantly stronger friendships. If anything that the current pandemic has forced us is to look at our lives. That is today the strategic window of opportunity which is open. And opportunity to examine our common interests, find paths of convergence and concentrate not just only regional cooperation but more importantly on regional cohesion. It is time to come together to seek a collaborative security. It is time for a new strategy- one of actively seeking fresh common ground and rally together to secure our common and shared future.

Thank you very much.

Marshal also an alumnus of the Royal College of Defence Studies, UK, Postgraduate in Strategy and International Security from King's College London and also holds an M. Phil degree in Defence and Strategic Studies.

Author Biography

Air Marshal Choudhury is an alumnus of the National Defence Academy and was commissioned into the fighter stream of the India Air Force on 22nd December 1983. The Air

Strategies to Face the New Threat of Terrorism

Professor Rohan Gunaratna

Professor of Security Studies, Nanyang Technological University, Singapore

Prof. Rohan Gunaratna, Professor of Security Studies, Nanyang Technological University, Singapore delivered an illuminating presentation on 'Securing Sri Lanka, the Post Easter Sunday Threat Landscape' at the Defence plenary session of the International research conference 2020 of General sir John Kotelawala Defence University held on 15th October 2020.

Refereeing to the Easter Sunday attack in Sri Lanka, Prof Gunartane mentioned that "in the blink of an eye terrorists killed 267 innocent people and injured over 500 people in three hotels and three churches on Sri Lanka". He further mentioned that this attack symbolizes the threat that Sri Lanka and the region are facing today. He went on to say that today Sri Lanka is facing a much more sinister threat than the 30-year LTTE threat that was vanquished. He elaborated that while the insurgency in the North and East of the country was confined to a region, the new pace of threat is a nationwide threat considering the demography of the population from which the Islamic state continues to recruit.

Prof Gunaratna opined that we must never think of it as a one-off attack. It is not the final act of terrorism by the Islamic state in Sri Lanka. it is a persistent threat the region and the entire world is facing after the decentralization or the global expansion of the Islamic state from Iraq to Syria. He explained that it is a global extension from the loss of Iraq and Syria. Elucidating the point, Prof Gunaratna explained how Abu Bakr al-Baghdadi, the terrorist leader who was hiding for five years, appeared and claimed that the attack in Sri Lanka was a revenge on the loss of that large territorial state. – Saharan Hassims's devastating attack in Sri Lanka took place just one month after their main stronghold in Syria, Babu's-Selam was lost.

In this backdrop, Prof Gunaratna explained the essential need for the world, region and Sri Lanka to reconfigure their military forces, law enforcement authorities and intelligence services. Explaining that our security forces are still fighting the old war and that they are having the same old mind, Prof Gunaratna expressed the necessity of considering some new features of the currently existing and emerging threats.

Prof. Gunaratna shared five of those features so that KDU can provide the understanding and knowledge to our military, law enforcement agencies, and intelligence services without over- or under-reaction. First it is necessary to understand that the foundation or the base of the threat is religion. Elaborating the point further, he described how Muslims in Sri Lanka co-exited harmoniously with Buddhism, Hinduism and Christianity for 1400 years. He explained that the beautiful form of Islam that prevailed was supplanted with a form of Islam from Pakistan and the Gulf after 1979 open economy, where other religions are not tolerated. The majority Muslims, the Sufis were ridiculed and vilified by the new strain of Muslims that came from the Middle East and from Pakistan. So, with the change of Islam, the Muslims too changed. They looked towards the East, they started to pray the way the Arbs did, they forgot their 1400-year Muslim heritage. The only way for Sri Lankan Muslims to protect themselves is to practice the beautiful form of Islam that harmoniously co-existed with Buddhism, Christianity and Hinduism in Sri Lanka. That was a very moderate, tolerant form of Islam. The new form of Islam that came from Pakistan and the Gulf breaks the idles. That is why in December 2018 in Mawanella, so many Buddhist sites were attacked, and images were vandalized. So, you could see very clearly the impact of foreign intervention and of the new forms of Islam.

In this context, Prof Gunaratna highlighted the need to regulate the religious faiths and he mentioned that for this purpose, there must be a

common Muslim identity. There must be a body on top of All Ceylon Jamiyyathul Ulama, a secular body that will include a few religious leaders but largely dominated by Muslim professionals, academics, businessmen, visionaries to make sure that this foreign form of Islam called Islamism does not replace the beautiful form of Islam that existed in Sri Lanka.

Further he emphasized that if you permit Arab preachers and clerics from overseas to come and preach, they will certainly spoil the beauty and harmony of our nation. So he proposed that anyone coming from overseas need to be scrutinized, and it should be checked whether he has attacked another religion or a traditional Muslim or whether he has been very sensitive to opinions of other faiths. Tshai the first point, he said, is the regulation of the religious base.

Secondly, Prof Gunaratna pointed out the need to regulate on the countries and schools to which Sri Lankan Muslim youths go and study, and he opined that they should go more to Asian countries – to Indonesia, to Malasia and to Central Asia rather than going to the Middle East because those who go there they will bring middle eastern ideologies and propagate puritanical Islam. He expressed the idea that they should be sent to schools that produce champions of peace and not champions that advocate differences and separation.

Thirdly, he pointed out the need to develop a very strong cyber presence and the need for our military to create a cyber-directorate because Islamic state terrorists largely operate in cyber space. He expressed the opinion that we do not have real experts operating in the online domain in the security forces, police and intelligence services, and thus the need for KDU to rise to this occasion, especially under the present Vice Chancellor, to produce specialists who can counter the threat.

Fourthly, he pointed out the need to produce rehabilitation programmes and to promote moderation, toleration and coexistence in the Muslim community and between the Hindus, the Buddhists and the Christians. He further said that we cannot allow extremist groups such as Bodu Bala Sena, Sihala Rawaya etc. to operate. He emphasized on the need to deregister any groups registered as political parties based on religion or ethnicity. He pointed out that we should not allow anyone in robes, Muslim attire or Hindu attire to come to parliament. Supporting this point, he pointed out the need to follow the Thai constitution which does not admit religions in politics.

As the fifth point, Prof Gunaratna pointed out that our political leaders need to integrate our communities. Kaththankudi, what he called the grand zero of terrorism, has a 100% Muslim population. He stated that If Muslims are not going to mix with non-Muslims, we will have exclusivists living their own lifestyle and not as Sri Lankans. Therefore, there must be a programme to mix the communities. He mentioned that there are ten different ways to accomplish this, and he explained three ways to do so. The first way is appropriate urban and town planning to make sure that people are settled and resettled so that it will reflect harmony in the future. Secondly, he pointed out the need to have mixed schools instead of separate schools that exist today for Muslims, Tamils, Sinhalese, for Christians, Buddhists etc. Elaborating the point, he mentioned that we had many failures in the past and that is why the Easter Sunday attack happened. The expectation is that there should be a new generation of children without ethnic and religious prejudice because it is suspicion and prejudice that lead to hatred. Further he explained that fighting an Islamic state wave of terrorism is not men and women wearing black, carrying guns, breaking doors and killing and capturing people. Our armed forces will have to totally change, and regulating the religious base, having the necessary laws, maintenance of religious and ethnic harmony acts etc. need to be ensured. Anyone insulting other religions need to be arrested, Investigated, charged and prosecuted.

Prof Gunaratna speaking on our limitations, mentioned that we do not have the required cyber

capabilities. Saharan was able to meticulously plan and execute his attacks because the government of Sri Lanka, intelligence services, law enforcement agencies and the military forces did not build the core competencies to fight the modern wave of terrorism. He opined that even one year after Easter Sunday attack, we have not built these capabilities. So he appealed to the military, law enforcement agencies and intelligence service chiefs and their representatives at KDU to build these capabilities so that we will not suffer another terrorist attack.

He emphasized that this new war can only be won if the security forces are able to build the core competencies and if they have the willingness to work with religious, education and information agencies, and he emphasized that if we do not do this, we will be fighting a war for another 30 years in against Muslim extremists the same way we fought against the Tamil Tigers. Finally, he proposed to create harmony centers at provincial, district, town, and village levels and also at national level and to have harmony programmes where Sinhala, Muslim and Tamil people live together.

Prof Rohan Gunaratna concluded his presentation by paying tribute to KDU by mentioning that the Vice Chancellor of KDU is the best Vice Chancellor the country has ever produced and that KDU is the best university in the country as it is free from riots and ragging, and he expressed his opinion that KDU could be a model for other universities in the country. Finally, he wished that KDU would soon be a globally recognized university with higher university ranking.

Author Biography

Professor Rohan Gunaratna is a political analyst specializing in international terrorism. He is the former Head of the International Centre for Political Violence and Terrorism Research at Nanyang Technological University in Singapore. He served as counter terrorism instructor for GIGN, CTSO, D88, US NAVY SEALS, Swiss Federal Police, NYPD, and the Australian Federal Police, and conducted field research in conflict zones including Algeria, Egypt, Israel, Indonesia, Thailand, Philippines, Sri Lanka, Bangladesh, Kashmir, Pakistan, Afghanistan, Uzbekistan, and Colombia. Author and editor of 12 books including Inside Al Qaeda: Global Network of Terror (Columbia University Press), Gunaratna is also the lead author of Jane's Counter Terrorism, a handbook for counter-terrorism practitioners. He also serves on the editorial boards of the journals Studies in Conflict and Terrorism and Terrorism and Political Violence.

Human Security, A Pivot for National Growth and Security

Major Geneneral Asif Ali, Hilal-e-Imtiaz

Director General - Institute for Strategic Studies, Research & Analysis
National Defence University - Pakistan

Honorable Chair, Excellencies, distinguish participants, Assalamu Alaikum and very good morning. I hope I am audible and visible. In these extraordinary times where, human contact is risky I appreciate the initiative of KDU to organize international research conference virtually. It is indeed my privilege to share views on holistic approach to national growth and security. This is the most appropriate subject to discuss during the COVID-19 pandemic. When national growth, economy and security of humankind have come under extreme stress. I recall my visit to Sri Lanka in September last year to participate in the international research conference that discussed 'Challenges to Humankind in the Fate of New Technologies' and had the opportunity to share with you the Pakistan's perspective. I still have the phone memories of my visit there because of the unmatchable hospitality given to me and my family. Thank you very much and I would love to be back again.

Today, I shall focus on the Human Security as a pivotal for all programmes and efforts of plans to ensure national growth and security. In other words, comprehensive security is human-centric as compared to traditional security which is state-centric. According to famous philosopher John Stuart Mill nearly all other earthly benefits are needed by one person not needed by another. And many of them can be replaced with something else, but security no human being can possibly do without. Ladies and gentlemen, and I do hope that there are ladies in the audience in such forum where serious discussions take place on vital issues of national security, we must first focus the reality that is around us. The reality in my view is that the world is in post truth world where the death of truth has occurred due to proliferation of information, misinformation and half-truths. The social contract between the state and the people

has become channels. To make the state strong, the need to strengthen the social contract is imperative, hence, my emphasis on human security as a pillar of national growth and security.

National security as a notion conveys our perceptions about a set of essential conditions conducive for national servival as well as continuous process for achieving these conditions and maintaining them despite the challenges. Globalization has brought extraordinary interdependence coupled with technological revolution that has blurred the geographical world order and has impacted the fundamental concept of security. While state security transcends into regional and global security the security construct itself revolves around human activity. Thus overlapping security concerns need synergetic gaps of all elements of national path. We all need to keep in mind that WHO emphasises that human well-being is a precondition for world peace. Here I would like to acknowledge the contribution of Pakistan's imminent Economist Dr. Mahbub ul Haq who was instrumental in getting the concept of 'Human Security' cooperatively with the UNDP Human Development Report in 1993. Since then, there has been created stress on peoples' security, food security, environmental security rather than security through armaments. Respectful human rights and policies to ensure observers of human rights have significate in this indicate. But this has not yet come close to securing all humans. Governments try to prioritize the rights and interests of their own citizens over the fundamental rights of others. Human rights are still routinely treated as secondary to national security issues where the two are perceived to clash. Ladies and gentlemen, the modern world has become more complicated, multipolar, multidimensional and uncertain. In fact, our world today is a world of regional and international

developments that will have a far-reaching impact on human security. Major competition over natural resources and body of land and sea has remained the basic reason for competition and confrontation. What if droughts, famines and natural disasters have had negative impact on human security and national growth in countries or regions that confront such challenges. Moreover, emergence of different narratives and ideologies of past governance being imposed by states on their own population on one hand, and by powerful states on weaker dual pin states on the other have disturbed the global environment. Hybrid warfare tactics are being deployed to weaken the social intellectuals and cultural fabric. Extensive usage of social media and information technology by the digital natives of generations are transforming social behaviors. In this era of hybrid warfare and artificial intelligence, the options of human decision making, and values no longer play the same role as before in strategic thinking.

Thus, the concept of national growth, security and stability has become more complex as it involves not only highly sophisticated and technologically advanced weapon systems but also human security, growth and economic well-being. It is imperative to ensure that ongoing revolution in information and communication technologies focuses equally on the human dimensions of security. As responsible members of the international community and as a part of South Asian Association for Regional Cooperation our countries must put much emphasis on measures to mitigate the negative impact on climate change, food security, water security, energy security, etc.

Thus, human dimension needs to be given priority in the quest for national and regional security and stability. Ladies and gentlemen, we must be answerable and watchful about the fact that traditional and non-traditional threats emanate from multiple directions. The target can be military or strategic installation and infrastructures but most importantly their target is people and citizens. These threats predominantly rely on the ability to shift through

multiple domains our phenomena increasingly recognized as the fifth-generation warfare. National growth and security are thus not merely related to defense or the armed forces. It needs the ability of the state to attain vital interest as well as to ensure the well-being of the society and the individuals. This broad sense of national security goes beyond just protection from physical harm. Human security embracing far more than absence of conflict. It means freedom from want, freedom from fear and freedom to inherent our healthy natural environment. These form the building blocks of a holistic national security as it harmonizes all elements of national path and resources.

The COVID-19 pandemic took the world in surprise. It spread like a wave in the countries in the world. The virus does not recognize countries, race, or religion. It attacks anyone who is vulnerable. The world has been given a wakeup call. Nature has lashed back at humankind for brutally utilizing its resources without any efforts to replenish them. No country is enabled to protect its population from the Corona virus single handedly. Perhaps, this is the time to learn to face such challenges through cooperation not competition.

Pakistan has been appreciated globally for its effort to have successfully fought this menace. We were able to achieve this success through multidimensional approaches. We instituted our National Command Operational Center as well as made the people aware about this menace. The recovery rate in Pakistan has been higher. All this could not have been achieved without the commitment and devotion of our medical and para medical staffs. The pandemic has reinforced the vital importance of responsible utilization of information and communication technology and artificial intelligence for human security and not for human destruction. The emerging new technology like artificial intelligence, internet of things, cloud computing has introduced new challenges for human security. While science and technology have given us the tools to improve, they are also presenting serious problems.

Technology no doubt connects us but it also makes us vulnerable to multiple threat including deception revolution, data theft and lethality in weapons and cyber-attacks. These are common challenges to humankind and must be faced collectively. Ladies and gentlemen, Pakistan has been at the fore front of global efforts to make this world more secure. With our success in defeating terrorism and enormous sacrifices by people and security forces, Pakistan is moving forward with determination to overcome the various challenges and roadblocks to security, stability, economic development and growth. Pakistan has faced various challenges of different magnitude. The strategic balance in South Asia has been upset with the acquisition of a state-of-the-art sophisticated lethal weapon system in our region. Arms race may shake the regional security and stability. Our region is truly at the curse of its historic developments. The landmark agreement between the US and Taliban in February this year and the current ongoing intra-dialog has brought a view of fresh hope and sense of positiveness on people of Pakistan and region. Mega projects like TAPI and CASA 1000 would contribute to human security in terms of energy security, economic development and employment generation. The peace in Afghanistan is extremely important for regional growth and security.

To conclude ladies and gentlemen, the vital linkage between peace and security on the one hand and national growth and human development on the other cannot be over emphasized. No other country knows this battle in Pakistan. In an environmental regional peace, the countries of South Asian region shall find opportunities for cooperation and connectivity that has the potential to transform our region into an economic angel of Asia. I am deeply convinced that our region can realize its true potential if the countries of the region respect each other as equal partners and cooperate with each other as equal members of the international community.
Thank you.

Author Biography

Major Geneneral Asif Ali was commissioned in 15 (Self Propelled) Medium Regiment Artillery in 1987. He is a graduate of Command and Staff College Quetta, NDU Islamabad and NDU China. The General has held various staff assignments including General Staff Officer-3 and later Brigade Major of an Infantry Brigade and Chief of Staff at Headquarters Army Strategic Force Command. On the instructional side he remained on the Faculty of Command and Staff College Quetta and School of Artillery. He has also served as Military Observer in Iraq, Kuwait. He has commanded 15 (Self Propelled) Medium Regiment Artillery, Mujahid Infantry Battalion along Line of Control, 116 Infantry Brigade in Operation Al-Mizan and Division Artillery in Operation Al-Mizan. He has remained Commandant School of Artillery and has the honour of Commanding a Strategic Division. He is presently serving as Direcor General ISSRA since 1st January 2019 and pursuing his Ph. D. in Peace and Conflict Studies.

Making Sense of China's Security Outlook: Concept and Practice

Dr. Rong Ying

Vice President, China Institute of International Studies

Let me thank the Chair. How privileged I am to be invited to speak at this international research conference of KDU, a top Defense University in the region and the beyond. And I would also like to thank Dr. Bhagya Senaratne a Visiting Fellow at the China Institute of International Studies who had done a great job to make it possible for me to attend. And I am looking forward to seeing all the friends in the near future.

I think I have a disadvantage to speak a little but I thought that it would be good for me to present my understanding on China's security outlook or concept which has been going through evolution or changes in response to the changes in transformation in the region and the beyond. There are three parts in my presentation. Part one will be about the China's evolving security concept. And second part will be on challenges or issues facing by the concept of security and its practice in the light of changes or transformations. And the last part, I will say a few words on some ideas on how China and Sri Lanka in particular and the region in general can strengthen security dialog.

I think since all of you are security and defense experts, you must have followed the new terminology on China's security concept. I think at this moment what we are talking about again interestingly a holistic security outlook concept which covers almost eleven kinds of security. So, it is a very extensive concept on security. And this kind of concept derives from an understanding which I think combines both external and internal situations and also reflects China's own outlook or thinking about its relationship with the outside world.

The time when China started to talk about security concept would date back to around the mid-1990s. I think if I remember correctly it was in 1996 that China started to talk about the new security concept for the region. For China, the security concept should be based on mutual confidence, mutual trust, dialogue and cooperation. This security concept I think was a reflection and response to the changing situation. In the post-Cold War era, China continued to focus its own development while striving very hard for a favorable environment for its development. But the situation outside China was changing. China's relationships with major powers were changing as well. And so were China's relations with its neighbors. I think the idea to have a new security concept featuring mutual trust and security through dialogue and cooperation was relevant.

I think by 2002 China came up an official statement on a security concept on Asia, which was presented at the Asian Regional Forum, and the new security concept had become more elaborated. And again, four key words on security featuring mutual respect, mutual trust, mutual benefit and the equality and the cooperation. So, this is again I think it reflects kind of continued efforts by China to promote a concept for common security through cooperation and dialogue so that China will be able to continue to focus on its development. This I think is an important development. I call it China's security concept, version one.

As China develops or rises, its relationship with outside the world becomes more interdependent and complicated. China's perceptions on the security both at home and abroad are changing. I think it increasingly sees its own security or security at home domestic security intertwined, which includes political security, social security, economic security. China has realized that what is happening outside the world would affect what is happening in China. And it would have to pursue

its security in a more comprehensive or a holistic way.

In the meantime, I think China continued to pursue the peaceful development by working closely with major countries for a framework of relationship. And it worked closely with its neighbors to promote common development. Meantime there are differences and disputes between China and its neighbors that need to be managed in a constructive way. I think China also strongly feels that a regional security architecture is also important as it could help China to work with other countries multilaterally. I think China is thus becoming increasingly an active player in regional architecture like ARF and talks on concluding a Code of Conducts on the South China Sea (COS).

Author Biography

Dr. Rong Ying is Vice President and Senior Research Fellow at the China Institute of International Studies (CIIS). He had previously served as Deputy Director for South Asian, Middle Eastern and African Studies, Director for International Exchange, Director for International Strategic Studies, and Director for American Studies at CIIS from 1999 to 2008. He was Vice President of CIIS from 2008 to 2011. From 1993 to 1997, he served at the Chinese Embassy in the United Republic of Tanzania as Third Secretary and as Minister-Councilor at the Chinese Embassy in Japan from 2011 to 2016. Dr. Rong got his MA in English from Beijing Normal University and his PhD from Peking University. He was a visiting scholar at the Bush School for Government and Public Service, Texas A & M University, U.S. from April to October 2000.

Holistic National Growth and Security

Major Geneneral Muhammad Tahir

COMSATS University - Pakistan

Historically, it is seen that national growth and development have an inextricable link with national security. Only those nations can protect their liberty and territorial integrity, if they can flex their muscles militarily. This can only be achieved if a nation has a sound industrial base, which itself is intimately connected with a sound economy and national growth or a sound economy only for weapon acquisition. The clear manifestation of this in the present times can be seen with the emergence of China not only as a military power, but also as an economic power. The Belt and Road initiative which spreads over 4 continents and has 138 countries on its orbit has a GDP of 29 trillion US dollars and effects the lives of 4.6 billion people. With the cutting-edge technology in all major areas of S&T, China has already surpassed major developed countries and the economic benefits of this progress are now transcending its borders. This has seen the center of gravity shifting rapidly from West to East.

The spectrum of traditional threats to regional and global peace, stability and security is indeed very broad and has diversified faster than expected. Out of these interstate and intrastate armed conflicts and the likely use of weapons of mass destruction, clearly stand out as major dangers to peace and dominate all other security concerns. Additional major challenges and threats are posed by proliferation of weapons of mass destruction, nuclear and conventional arms race in some parts of the world, terrorism and the consequences of failed or failing state due to economic challenges.

The major flash points which pose grave challenges to peace are Sudan, Mali and Somalia in Africa, Afghanistan, Kashmir and Koreas in Asia Pacific region, Iran Iraq, Israel, Syria, Yemen, Kurdistan and Lebanon in the Middle East and Near East Asia and disputes in the South China Sea. Afghanistan where a coalition of 43 countries have been fighting a war for over a decade, with major budgetary outlays of USA and European countries are finally realizing that the solution only lies in negotiated settlement.

The issues of conflict, war and peace hinges on how nations define and protect their economic interests. Nontraditional security challenges like socio economic risks caused by economic uncertainties and political factors also pose serious challenges to regional and global security. Other issues like global financial instability especially in the recent times due to pandemic have increased the risks manifold. It has resulted in resource scarcity and inability of global governance institutions to meet the challenges of large-scale youth unemployment and industrial shutdown. The knee jerk reactions of opening the economy without taking the rising number of Covid cases even in the most developed countries have worsened the situation further.

US efforts to rebalance Asia in order to contain or counter China economic rise has exacerbated the situation further The situation demands global formulas and solutions not only to meet challenges of pandemic but also the worsening economic situation in the developing countries already badly ridden by the mounting debts and payments. This paradigm of national security and economic interdependence therefore needs to be redefined through requisite strategic measures and economic policies. The major global transformations being witnessed in the recent phase of the fourth industrial revolution, this nexus has become even more pronounced. With increased connectivity and global interdependence, economic growth has become a major determinant of national security and so has national development. Trade and investment, capability of human resource, effective

governance, efficient use of natural and financial resources, secure social environment have acquired critical importance. Along with diplomatic maneuvers the inherent strength of the nation lends credible role in shaping global agenda. It also creates space for promoting national interests through cooperation rather than competition. The Belt and Road Initiative for example is a project that encompasses socio-economic uplift of various regions through growth and development. The infrastructure development and the setting up of financial institutions are aimed at creating systematic and uninterrupted flow of supply chain for unhindered trade. National consensus on policies and the constructive engagement of people give added boost to national growth and security as a whole. The economic sanctions and the threat to use force is another risk factor which affects the economy of various countries. Israel and US threat to use force and to stop Iran from acquiring nuclear weapons and but also economic sanctions US and other western sanctions pose a greater risk not only to Persian Gulf but also to Middle East and South Asia. US knows that Iran Pakistan gas pipeline is vital for energy needs of Pakistan yet opposes this project because of Iranian sanctions. They ignore the fact that energy shortages not only can destabilize Pakistan but can also have disastrous effect on the economy of Afghanistan. Similarly, these sanctions have destroyed the trade between Iran and Afghanistan and is a major cause of devaluation of Iran and Afghan currency.

With the potential for increased proliferation and growing concerns about nuclear security, risks are growing that future war in South Asia and Middle East would risk inclusion of nuclear deterrent. The Middle East and South Asia are two regions likely to trigger broader instability. An increasing multi polar Asia lacking in well anchored economic and regional security framework could constitute one of the largest global threats. An unstable Asia would cause large scale damage to the global economy. World leaders therefore must be aware of general notions and percepts of peace and imperatives of intervention by the international community as well as the UN to meet these security and economic challenge and avert all threats to peace. This can only be achieved through a holistic approach to national growth and security that quintessentially take multiple factors and determinants in view.

Author Biography

Maj Gen (RETD) Muhammad Tahir Graduated from Pakistan Military Academy Kakul in 1971. He followed the Bachelor of Arts (Honors) from Government College Lahore and Master of Arts (English Literature) from Punjab University in 1976. He Holds the degrees of BSc (War Studies) from Balochistan University Quetta, MSc (War Studies) from University of Cairo Egypt and MSc (Defense and Strategic Studies) from Quaid- e -Azam University, Islamabad. He has served in Pakistan Army for 35 years. Maj Gen (RETD) Muhammad Tahir was awarded Hilal- e -Imtiaz (Military) for meritorious services.

COVID-19 and its Impact on Global Terrorism Trend

Dr. Sara De Silva

Asst Prof Military Programme - Abu Dhabi University, United Arab Emirates

Honorable Chairs, distinguished guests, ladies and gentlemen, greetings from United Arab Emirates and thank you very much for the opportunity for me to talk about a really important topic which is 'COVID-19 and its Impact on Global Terrorism Trend.'

I will focus specifically on the terrorism trend and my friends were talking about its impact on counter violent extremism and terrorism. So briefly, we all are familiar, the pandemic has presented opportunities and challenges for everybody in this world today. And specially it has also presented opportunities and challenges for terrorist groups around the world. Now, if you look at the last few months seemingly there is an apparent decrease in the number of terrorist attacks at global scale in the recent months. But actually, it is not necessarily a positive indication. If you followed the news, we have seen attempted attack against hospital that was treating COVID-19 patients in America and also in Tunisia there was an incident where two men were arrested over plot to infect the Tunisian security forces with COVID-19. At the moment all across academia is premature to establish any sort of interlinks between terrorism and pandemic. But Red Cross has shown that attacks by Al-Qaeda and Islamic State of Daish in Sub Saharan Africa increased by 37% between mid-March 2020 and mid-April 2020. And also, there had been general increase in Islamic State activities in Iraq and Syria. And also there has been an increase in hate crimes that is in America.

So first, I will talk about the opportunities that COVID-19 has given to terrorist groups around the world. The very first and foremost important factor is the increase in captive audience. So now with the lockdown and the instruction of the movement especially youth are spending much more time online, there has been an increase in unsupervised internet usage, I mean kids who are at Home doing online learning is a positive thing but the down side to this is there is an increase in unsupervised internet usage by the youth. And according to a report that was published by organization called Moonshot CVE based in United Kingdom, this is an organization for counter terrorism propaganda online. So, their report says that there has been 13% increase for white supremacies content on google across America at the beginning of April. And especially lockdowns have been placed for modern cadence the average of the google search of extremist contents amounted to 21%. And the number of right-wing extremist groups on social media has also increased in the West in the past few months and also North America study the relationship between online activity and radicalization in the past few months there has been increased in cyber-crime.

The second factor or the opportunity that is now available for the terrorists as a result of COVID-19 is increase drivers which further terrorist propaganda and narratives. So, first COVID-19 has impacted on governance, social polarization, economy all of these will affect how extremist ideologies were constructed and disseminated. So just in general many individuals continue to stay uncertainty and isolation and some countries even witnessed political instability. So, this kind of situation is exactly what terrorists drive on. So, what the terrorists do is they integrate the COVID-19 situations and chaos into their narratives and propaganda and they are basically exploiting kind of events for their purposes. So, this means they have narratives they make differences among enemies, they are wing forcing hatress towards particular ethnic or religious groups and some terrorists groups are calling for action to conduct terrorist attacks during this time and lots of time it is conspiracy theory. And for example, in the

case of Salafi or Jihadist groups how they interpreting and exploiting the pandemic?

So, the COVID-19 according to them they are acting as soldiers of Allah and pandemic is representing a great play which in mentioned in Hade or signalizing the prophesied end of time and coming of Islamic missile. And for groups in Islamic State in particular they are calling for action to do terrorist attacks and calling for release captured militants and families from the prison in Iraq and Syria. On the other hand, we have groups such as Al-Qaida for them they are using this opportunity in different way. In calling for terrorist attacks they are inviting people to use this time to stay at home to study Islam during lockdown and quarantine period and prepare themselves spiritually and physically and Al-Qaeda specifically say their followers not to conduct any attacks. So there are differences even within the ideology of Jihadist Salafist organizations.

Now we have white supremacy groups. For them COVID-19 is a perfect opportunity to increase their hate speech towards Asian. Especially because COVID-19 came from Wuhan. And also, they are twisting the story now and they are blaming Jews for spread of COVID-19. So essentially their narrative is extremely racist, semantic, Islam-forbid. And some of them even link the spread of COVID-19 to the spread of Chinese 5G technology. So they are twisting in making story just to fit their narrative. Even the far-right groups are incurring their supporters if the supporters get inflected they will visit local mosques, visit local Jewish cynical, spread time at the public transport and spread time public places to spread the threat or virus to other people.

On the other hand, we have groups like left-wing interest groups that blame capitalism for the COVID-19 pandemic and call for action for them is destroy businesses to accelerate the capitalism downfall. So we can see how so many different organizations with different ideology are twisting narratives exploiting the situation to suite with their own propaganda purposes.

The other trend we see is terrorist groups now with COVID-19 are engaging in pro-social activities. And this is especially applicable in failed states. Because in failed or weak states the capacity of the government to protect its citizens and the trust between the citizens and the authorities provide enough opportunity to terrorist groups to exploit the grievances and needs. So, they try to promote anti-state violence, they are trying to decrease the government's legitimacy.

So, what do we do? The terrorist group step up the delivery of essential services and promote relative effectiveness of health and social care efforts. For example, they provide more essential health care services on behalf of the government, they call to social distance, they promise safe passage of health care workers, they disinfect public places organize or distribution. And they do all these charitable social activities which states are failed and provide for their people. This actually boost their reputation and can clearly see the propaganda value of such efforts as an opportunity to broaden their supports in long-term. Another opportunity we see is weaponization of COVID-19 or there has been increased prospect of engaging in terrorism as very viable and attractive tactic in the future. Now the world is seen how much of chaos virus spreads and for terrorists this is extremely attractive ideal because of psychological and social economic impact it is caused.

And also, we can see a modified target selection. So traditionally terrorist groups like to conduct attacks in crowded areas where people used to gather. For example, markets, public squares, places of worship. But now due to restriction of movement and people are staying at homes now target selection of terrorist groups might change. It might be replaced by targeting critical infrastructure such as hospitals, supermarkets inside people intend to go more. And final point we see the the opportunity for terrorist groups is that terrorist financing. Of course, they need money to run their businesses. So, this is likely to

continue on the guide on humanitarian relief operations. We have seen even in Sri Lanka the LTTE how they used to bring funding's abroad and they used to collect money using humanitarian relief organizations to fund terrorist activities. In the same way the terrorists used COVID-19 they collect financing under the guise of humanitarian relief operations against the pandemic.

Now I want to shift talking about challenges and the teachings which the pandemic has paused or giving to the terrorist groups. First, there is limitations of operation around. As I said earlier the lockdown and the restriction of freedom of movement of the people, it is harder for terrorists to move across and conduct operations and because of few of time and space. Because that moment of people means that any suspecting terrorist that is conducting surveillance or doing some special purchases or they launching attacks is much easier to identify. And this is something we see right now in the Gaza Strip. Now Hamas the terrorist organization is now much less active on the ground because they know that they cannot be identified now with the less people outside. And also, this has reduced the effectiveness of common terrorist practice such as stabbing, bombing or vehicle borne IED blasts. And also, there is a decrease for restrictions in international travel. So therefore, there is a decrease in foreign terrorist fighters that travel Syria or everywhere just in general.

The second challenge for terrorist is negative impact on resources. So the destruction of the global, regional and national supply chains terrorists is struggling to access food, medicine and money and weapons. And there has been general restrictions with the moment of people and goods which has deprived terrorists from revenue from acquisition or extortion.

And finally, there has been negative impact on popularly. So now with the media, national security agenda, government level everything is dominating by the COVID-19 pandemic. So nationally there has been a reduced media attention to terrorist attacks. Now this is not good

for terrorist because terrorists need that media attention. So, this means is that because that there is less media attention and with the reduced capability the terrorist attacks they can become more extreme and more violent in order to grab attention. So, resulted with attack on maternity hospital in Afghanistan just few months back in 2020 resulted drastic very violent extreme attack. So, we can see that there is negative impact on popularity because such types of attacking are actually initiate potential consequences.

Just as a concluding remark, what is the implication of all of this for Sri Lanka in particular. Now while Sri Lanka has a much low infection rate compared to other countries around the world, Sri Lanka still faces challenges due to the "new normal" created as a result of COVID-19. Now extremism of all types thrive under the current situation and Sri Lanka is no exception to the rule. And now today especially we see the news that PCoI on Easter Sunday attacks are going on, and reports are coming out. With all of these we see lots of blame-games are happening from the people of the previous administration. But all of these is also going to affect and undermine the stability of current the administration because this type of instability and blame-games are something that terrorists love and they can thrive on for propaganda purposes. And also, not to mention I am based in United Arab Emirates and being in the Middle East I saw lots of Middle Eastern media outlets negatively had criticized about the cremation of the Muslims. The Muslims who have died from COVID-19 Sri Lanka. And that was in news in Middle East. These kinds of things can also fuel extremist narratives against Sri Lanka. That is the perfect sort of platform which terrorists can exploit.

In conclusion, I would like to say that COVID-19 has been strategic destruction for the law enforcement agencies. But on the other hand, let's not forget terrorism more than COVID-19 terrorism is a pandemic. So, we are dealing with enemy that is more immortals that constantly capable to evolve and adopt into different circumstances. So, although we are unlikely to see

immediate effects and the efforts of terrorist groups and radicalization is happening now during COVID-19 we can see them during lengthy economic stagnation of countries all over the world and for post pandemic recovering period. So, with this I would like to conclude my presentation.

Thank you very much for your attention.

Author Biography
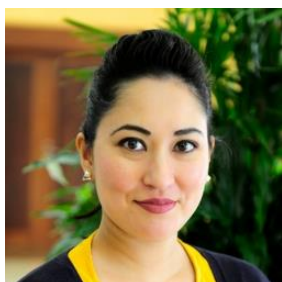
Dr. Sara De Silva is an Assistant Professor of International Relations at the Military Program, Abu Dhabi University, United Arab Emirates. Her previous appointments include Senior Lecturer at the Department of Strategic Studies, Faculty of Defense & Strategic Studies at General Sir John Kotelawala Defense University Sri Lanka; Research Fellow at the School of Law and Government, Dublin City University, Ireland; Researcher at the Centre for Transnational Crime Prevention, University of Wollongong, Australia, and Associate Research Fellow at the International Centre for Political Violence and Terrorism Research at Nanyang Technological University, Singapore.

Holistic Approach to National Growth and Security: Significance of Peace, Stability and Regional Cooperation for Economic Progress in South Asia

Major General (Retd.) Dr. Shahid Ahmad Hashmat

Former High Commissioner of Pakistan to Sri Lanka

Introduction

Greeting, Good afternoon, and Ayubowan,

Honourable Chair and members of the Panel, it is a matter of great pleasure and singular honour for me to participate in the KDU International Research Seminar for third consecutive year. My thanks to KDU for providing me an opportunity to speak on such an important issue.

There is a natural nexus and interdependence between 'National Growth and National Security'. For next few minutes, I shall talk about "Significance of Peace, Stability and Regional Cooperation for Economic Progress in South Asia" in the context of 'Holistic Approach to National Growth and Security'.

National Growth essentially relates to the economic growth; however, it is also related to political stability, national cohesion, national integration and harmony among all ethnic/constituent components of a nation.

As for as National Security is concerned, it needs to be seen in the context of 'Comprehensive Security', which is a much wider concept as compared to traditional security or defence against territorial aggression, internal disturbances and civil war. The comprehensive security, inter alia, includes, human security, economic security, cyber security, energy security, food security, water security, environmental security and protection against natural and manmade disasters as well.

Therefore, when we contextualize the national growth and security, we understand that these concepts are interconnected and interdependent.

Without security, peace and political stability cannot be achieved. Similarly, in the absence of peace and stability, there can be no economic progress. Insecurity breeds chaos and destabilizes all facets of human life in the society. The worst causality is, of course, economic growth adversely affecting production of goods and services and commerce and trade.

A.   Economic growth.

Economic growth is an increase in the national wealth of nation, i.e. production of goods and services, in a given period of time. Traditionally, aggregate economic growth is measured in terms of gross national product (GNP) or gross domestic product (GDP). Besides many other factors, domestic stability and technological progress are the main drivers of long-run growth. Sustained economicgrowth requires a substantial and continuing investment in human capital. One major form of such investment is higher education and contemporary technical skills. Higher economic growth helps nations to increase the average income of their citizens. It reduces unemployment and increases investments, especially in research and development, which leads to further economic development and progress. With increased economic growth, countries can spend more resources on social welfare projects, thereby enhancing the quality of life of their citizens.

B.   Security.

Traditional meaning of the Security is freedom and protection from potential danger, such as attack/invasion by external enemies or a turmoil and upheaval caused through internal disturbances. However, in contemporary times,

security means much more than merely being secure form kinetic threat. We live in a complex world and we are affected by multiple factors. Therefore, the concept of Comprehensive Security, as mentioned earlier.

C.   Peace.

Peace has been defined in many different ways. It means freedom from civil disturbances, war, and violence. Particularly, it refers to the time when people can live and work together happily without disagreement and disturbances. A state or period in which there is no war, or a war has ended.
Political Meaning: Absence of war, violence and disagreement.
Social Meaning: Mutual harmony, tranquility, calmness, and absence of hostility, antagonism and animosity.

D.   Stability.

Stability means ability or state of being stable and not getting imbalanced or dislocated. Political and economic stability denote to smooth functioning of political and economic systems. Whereas, social stability means ethnic, religious and sectarian mutual coexistence, without threating the harmony and right of peaceful living of others groups.

Peace and Stability - A National Goal/Objective

Peace and stability within a state and in its neighborhood, along with economic wellbeing of the citizens, are among essential goals of every nation in the world. In order to achieve these objectives, all nations / countries develop their national policies and strategies and pursue their foreign policies at regional and global level.
We live in a highly inter-dependent global economic system, which is steered by national interests of respective nations. At the domestic level, peace and political stability is essential for attaining economic progress, whereas at regional and global level, cooperation with other countries, particularly in respective regions, is equally important. Political and economic cooperation

helps to promote regional stability and connectivity, which are essential prerequisites for promotion of commerce and trade among various countries.

Regional Peace, Stability and Cooperation in South Asia

In order to ensure peace and stability, along with internal harmony and cohesion, each nation needs a peaceful neighborhood. Therefore, it is very important that, in addition to adopting friendly foreign policy towards neighbouring countries, each nation must adopt peaceful means to resolve international disputes and conflicts through mutual dialogue and negotiations.

The South Asian region, which is a home of more than 1.9 billion people, has remained colonized for almost two centuries, and in case of Sri Lanka for over four centuries. Such prolonged foreign rule has adversely affected the prospects of political development and economic growth in the region. Despite the fact that most of the countries in South Asia share common historical and cultural heritage, in the last seven decades of their independence, they have not been successful in developing practical foreign policy tools and instruments to forge meaningful regional cooperation. Notwithstanding the political rhetoric, which is expressed from time to time as a diplomatic gesture, no serious political will has been displayed to achieve regional cooperation and connectivity. The regional integration could facilitate promotion of commerce and trade and can open new opportunities for economic progress in the region.

Based on the idea of regional cooperation in South Asia, the South Asian Association for Regional Cooperation (SAARC) was established in December 1985. Besides many other areas of cooperation, it was envisaged to enhance cooperation in the fields of human resource development, economic progress, trade, finance, education, energy, transport, and science and technology. Though, over a period of time, many SAARC institutions have been established in

different member states yet the progress towards meaningful regional cooperation and integration is not very encouraging. The last SAARC Summit meeting was held in November 2014. Since then, no meeting of heads of the states/governments could be organized, which indicates the lack of trust and absence of political will among its members to make use of this organization for promotion of regional cooperation.

There are many successful examples of regional cooperation in the world, such as European Union (EU), Organization of Cooperation and Security in Europe (OSCE), African Union (AU), Association of South East Asian Nations (ASEAN), Shanghai Cooperation Organization (SCO), Economic Community of Western African States (ECOWAS) and Economic Cooperation Organization (ECO). Some of these organizations have performed better than others. All such organizations primarily operate on the principle of mutual respect for each other's sovereignty and noninterference in each other's internal affairs. The main impediment in regional cooperation in any region is the hegemonic attitude of one or more member states towards others. South Asia houses almost 25 % of the world's population and has enormous human capital and natural resources. Through peaceful resolution of all conflicts among the member states and by adopting non-hegemonic policy towards the neighbouring countries, SAARC region can experience peace, harmony and political stability in all countries. With increased connectivity and removal of trade barriers, the region has great potential to promote intra-regional and trans-regional trade and commerce.

Since all SAARC member states are developing economies, they lack the resources to develop elaborate communication infrastructure, which could enhance the prospects of transnational commerce and trade across the region and beyond. Luckily, this opportunity has been created by Chinese financed 'Belt and Road Initiative (BRI) and its flagship project, China Pakistan Economic Corridor (CPEC). Whereas BRI is a global project,

allowing connectivity among all continents, CPEC allows smooth flow of trade between Chinese western region, Centeral Asia, South Asia, Middle East and Africa. Especially, it provides excellent prospects of economic development in SAARC region. Hence, it is in the interest of all SAARC members to take advantage of this emerging opportunity to ensure the development of industry in their respective countries and promotion of transnational commerce and trade.

Conclusion

Economic progress can only be achieved through peace and stability. Therefore, all member states of SAARC should resolve their internal disputes and external conflicts with neighbouring countries through mutual dialogue and negotiations. If peace and stability is ensured, besides adhering to the principle of non-interference in internal matters of other states, South Asia has a great future for economic progress and prosperity.

Author Biography

The Author is the former Pakistan High Commissioner to Sri Lanka who is having 38 years national and international military leadership and higher education management experience, including seven years as a General Officer in Pakistan Army, over three years in UN Peacekeeping and two years as Dean at a national university. He Holds a Post-Doctorate in International Relations (International Cooperation), a Doctorate in International Relations (Contemporary International Conflict Resolution), along with three master's degrees in military studies, War Studies and International Relations. He has also undertaken variety of command, staff and instructional assignments during military career, including number of sensitive and challenging positions demanding very high professional acumen and competence

Fostering Growth by Ensuring National Security – An Airman's Perspective

Air Vice Marshal Andrew Wijesuriya

Director General Engineering - Sri Lanka Air Force

Introduction

Growth and National Security of a nation are intertwined; National Security underpins growth and without Security, growth may not be possible, whilst the lack of growth can impinge negatively on national security and vice versa. Both facets, Growth and National Security, are mutually inclusive, interdependent and essential for a country, each facet is dynamic in nature being driven by both external and internal factors and require constant review and reform to remain relevant and effective to a country. In addition, achieving sustainable growth whilst ensuring National Security is a complex task which needs a robust, rapid and continuous review process in place. For a democracy the added task of having to garner consensus across the spectrum of stakeholders responsible for growth and for ensuring national security of a country is also to be considered. Amongst the many stakeholders, the military of any country is a stakeholder in the process of ensuring national security. Though this is quite obvious, the role of the military in establishing a conducive environment for the growth of a country is less obvious.

A. What this paper hopes to achieve?

This paper attempts to trace the inter-relationship between National Security and Growth whilst exploring the roles undertaken by one arm of the Sri Lanka Military; the Sri Lanka Air Force (SLAF), to ensure National Security. It also explores how these roles contribute to the creation of a conducive environment for growth, describing how the SLAF's evolving peacetime role becomes part of the holistic approach to national growth and security of Sri Lanka.

B. What is Growth and What is Holistic Growth?

Growth is defined in Economics as the "increase in the market value of the goods and services produced by an economy over time and is measured as the percentage rate of increase in the real gross domestic product (GDP)." No two countries are the same, and equally neither are their economies and growth rates. Many comparisons are made between two countries, but often these comparisons fail to acknowledge the fact that countries differ from each other in their economic growth due to a number of factors which include: "growth of productivity, demographics, labor force participation, human capital, inequality, trade, quality of life, and employment rate"

Whilst there are numerous benefits or positives to be realized from the economic growth of a country such as increased productivity, increase in power, etc. there is also the concern of the negatives of growth as well. These are identified as "resource depletion, environmental impact and (non)-equitable growth."

However, Stuart Kusrch (Kursch, 2020) argues that based on present day methods of extraction of resources, action taken to reduce the toll on the environment will restrict rate of depletion of the resource itself. This leaves environmental safeguards and equitable growth to be ensured when pursuing economic growth.

In this backdrop it will be seen that though economic growth alone could bring dividends in the short run, unless the negatives which it develops are taken care of, such growth could be counterproductive in the long term. Thus, sustainable growth could be defined as equitable growth which is armed with a mechanism to reduce the impact on the environment.

John Dernbach (Dernbach 2003) however warned that this wasn't easy stating that "The biggest challenge for sustainable development in coming

decades would be to operationalize it: to make it occur or to make an effective transition towards it, in communities, places and businesses all over the world." Whilst the experiences of the past two decades appear to his prediction it also brings about a realization that for sustainable growth to be achieved, all stakeholders; both governmental and non-governmental, involved with driving the economy and those involved in mitigation of the impact of the negatives of growth, need to be identified and co-opted. This approach of identifying and co-opting stakeholders could be termed as all-inclusive approach to growth.

Thus, an all-inclusive approach to sustainable growth could be termed as being a holistic approach towards growth.

C.   What is Meant by National Security?

The term national security has been defined by many in different ways, and countries define National Security in their own unique way based on their perceived levels of threats, opportunities, strengths and weaknesses.

In the Nigerian context of 2014, National Security is defined as being "an appropriate and aggressive blend of political resilience, human resources, economic structure and capacity, technological competence, industrial base, availability of natural resources and of course the military might."

Whilst Iranian author Maryam Ashghari (Ashghari, 2017) defines National Security as being a "State where the unity, wellbeing, values, and beliefs, democratic process, mechanism of governance and welfare of the nation and her people are perpetually improved and secured through military, political and economic resources."

However this definition by the International Security Sector Advisory Team is deemed the most appropriate generic position on which to base the rest of the arguments on "A National Security Strategy or Policy (NSS or NSP) is a key framework for a country to meet the basic needs and security

concerns of citizens, and address external and internal threats to the country."

National Security in The Sri Lankan Context

No doubt shaped by the events of the internal conflict in Sri Lanka, Dr Vernon Mendis (Mendis,1992) has defined it as being "the safeguarding of the territorial and sovereign independence and identity of a state from invasion, occupation and acquisition by a foreign power. It also means the protection of the government in power against internal subversion and insurrection, seeking to overthrow it by unlawful means."

This definition of national security did fit that of Sri Lanka especially during the years of conflict. However, in today's globalized world, ten years after the end of the internal conflict, with numerous changes in the regional and global geopolitical environment it is apparent that Sri Lanka needs to move to a more comprehensive definition of national security.

From the Sri Lankan National Policy Framework published in December 2019 the following National Security Policy statement of Sri Lanka could be envisaged as being:

"Striving to inculcate a productive citizenry, a contented family, a disciplined and just society and a prosperous nation giving due consideration to socio, economic, environmental and political aspects whilst safeguarding National Security without compromising the democratic space available to our people."

Interconnectivity Between National Security and Growth

Unbridled growth on its own could have a negative impact on national security. Supporting this claim, the Stockholm International Peace Research Institute states that "In an increasingly interconnected and complex world, it has become clear that security and development are inextricably linked, especially in least-developed

countries. Threats to security can have socio-economic roots, including contests over natural resources, spillover effects of environmental degradation, economic and social inequalities, economic and political migration, and natural disasters, among others.

Highlighting the need to assure Human Security to avoid conflict which would impede growth, it goes on to state that "For over 20 years, development has been linked to security through the concept of human security. The relationship can be complex: lagging development can lead to grievance, and conflict can threaten development."

Confirming this importance of ensuring human security in order to achieve growth, Guy Ryder and Richard Samans (Ryder, Saman 2019), conclude that the increasing inequality and insecurity is brought about due to the transformation of work and emphasize the need to re-invigorate economic growth whilst developing the human resources to adapt to this transformation, stating that "In this new era, government and business leaders need to view the relationship between growth and labor markets the other way around. It is by upgrading their social contracts and better equipping their citizens to navigate the world of work that countries can most effectively boost their economic growth and development"

In this backdrop, Mariam Ashgary (Ashgary, 2017) researching in the context of Persian Gulf countries concludes that "National security is essential to growth, necessary to develop a country's security in all sectors of the economy, and links a country with the global economy and ensures competitiveness."

The Role of an Air Force in Ensuring National Security

In order to achieve the end state conceptualised by the National Security Policy, a National Security Strategy is required and to implement this strategy a government will have at its disposal a number of Instruments of Power (IOP). The 7 IOPs designated by the acronym DIME-FIL is used in

the at figure 1 below to demonstrate how Air Strategy executed by an Air Force flows down from the National Security Policy.
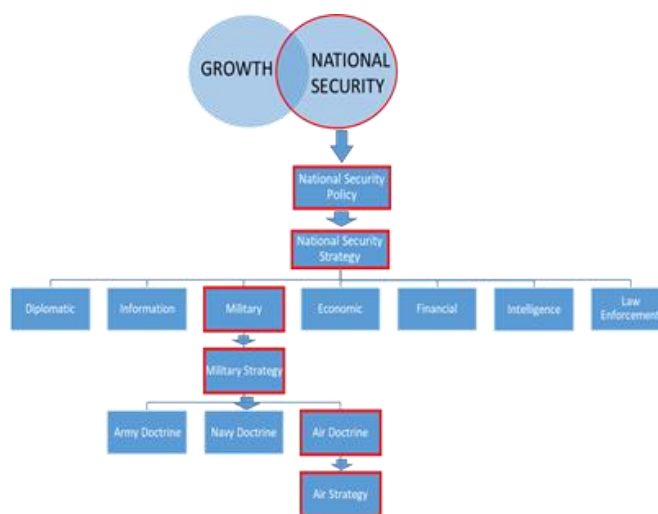
Figure 1. Conceptualizing National Security Linkage to Air Strategy

Challenges to the Traditional Operations Undertaken by the Military

Traditionally, the more affluent nations relied on a mechanism separate from its armed forces for response to internal security threats, be them man-made or natural. However, since 9/11 even the US Air Force has understood the need to use available and trained resources to counter such threats and in its classifications of the Range of Military Operations has included Homeland Operations which cover the use of military for response to natural and industrial disasters, terrorist attacks, civil disturbances and support for selected law enforcement activities.

Smaller nation states with limited resources have equally, traditionally called upon its armed force to supplement state establishments for restoration of normalcy due to disasters and disturbances. Thus, the Air Forces of small nations would find themselves undertaking a gamut of operations some of which may very well fall outside its traditional definition of Air Strategy.

The Sri Lanka Air Force and National Security

Similarly, the Sri Lanka Air Force too, since its inception, been called upon to undertake roles in support of National Security which are outside its classic role. The SLAF Doctrine of 2018 attempts to encompass these roles by bringing them under the realm of operations under the Air Strategy. However, there is slight confusion in how the ground roles, not in support of air operations conducted by the SLAF could contribute to the following argument takes this concept further in an attempt to bring more clarity and justify how the full gamut of operations presently undertaken by the SLAF comes under the Air Strategy employed to ensure National Security.

Whilst the SLAF defines Air Strategy as "the process of coordinating the development, deployment and employment of Air Power assets to achieve national security objectives", in today's context it would appear that the term Air Power Assets has become all-inclusive and also refers to ground assets of the SLAF which are traditionally used for combat support roles..

VFor ease of assimilation, the operations being conducted as part of the Air Strategy to ensure National Security have been classified into 4 subsets:

Classic Air Operations; Defensive Counter Air Operations, Maritime Air Operations, Air Surveillance Operations & Air Transport Operations. These classical air operations continue to-date in support of National Security of Sri Lanka. Whilst Air Defence is a 24/7 task which is rarely seen, the latest Maritime Air Operation conducted jointly with the Navy saw it fair share and more of publicity. Air Surveillance operations continue directly in support of the National Security conducting anti-narcotics operations, maritime reconnaissance and environmental surveys, whilst Transport Operations continue providing airlift for national requirements of critical infrastructure/machinery over inhospitable terrain.

Cyber Security Operations. Hitherto relegated as a combat support operation, Cyber Security Operations have now come of age, gaining recognition as an independent operation of the SLAF Air Strategy and supports the National Cyber Security effort as well.

Aid to Civil Power, Nation Building and HADR Operations –Air Role. Since 2016 the SLAF has participated in UN mandated peacekeeping missions in CAR and South Sudan, strengthening Sri Lanka's commitment to preserving international peace. SLAF maintains a readiness to respond to Humanitarian crisis and natural Disasters. A few notable HADR Air Operations were those conducted during the Floods of Colombo in 2016, the Landslides at Aranayake in April 2016 and during the Meetotamulla Garbage dump collapse in May 2017. In the Nation Building role the SLAF conducted a Seed Bombing campaign in 2019/2020 in aid of the National re-forestation program, In the Aerial Diplomacy cum overseas HADR role the SLAF played a key role bringing relief to foreign civilians and at the same time global recognition to Sri Lanka on numerous occasions; The airlifting of critical supplies to the Maldives during its water purification crisis of 2014, airlifting rescue teams and supplies to Nepal and evacuating civilians to safety in April 2015, airlifting of emergency supplies to Pakistan in the aftermath of the earthquake of 2015 are examples.

Aid to Civil Power, Nation Building and HADR Operations –Ground Role. Availability of skilled human resources and capabilities coupled with the changes in scenario led the SLAF to commit ground troops traditionally tasked with performing combat and general support roles in support of Air Operations to support of nation building and as aid to civil power.

Developing the civil aviation infrastructure re-construction of the runway at Iranamandu in 2014 and the renovation of the Batticaloa runway in 2017 are examples of the ground element in the nation building role.

Whilst in the Aid to Civil Power role, the controlling of 4 ground security sectors in the Colombo, Negombo and Kalutara districts in the aftermath of the 2019 Easter Sunday bombing has required the SLAF to perform supporting

operations in the ground role in assistance of the Police.

In addition, the SLAF has also been tasked with the security to the two main international airports; the BIA and the MIA where it also performs a multitude of security cum support roles including the immediate response to emergencies and the very operational role in the CBRNE, role all of which are labour and ground intensive. Though no aircraft are deployed in support of this task, there is a sizable commitment of Human and material resources which continues to-date.

The outbreak of the CoViD 19 pandemic in 2020 has also seen the SLAF participate in a myriad of

tasks in support of Civil Authorities sans the use of air power: civil construction of hospitals and wards, manufacturing of PPE, repairing, designing and manufacturing medical equipment for use of National Hospitals to establishing and maintaining quarantine centres for civilians in aid of the Department of Health Services of Sri Lanka are some of the tasks undertaken by the SLAF.

In order to summarize the above discussion, the following diagram which shows all subsets of Air, Ground and Support operations presently being conducted in Sri Lanka also shows their link to Air Strategy, and thereby to National Security.
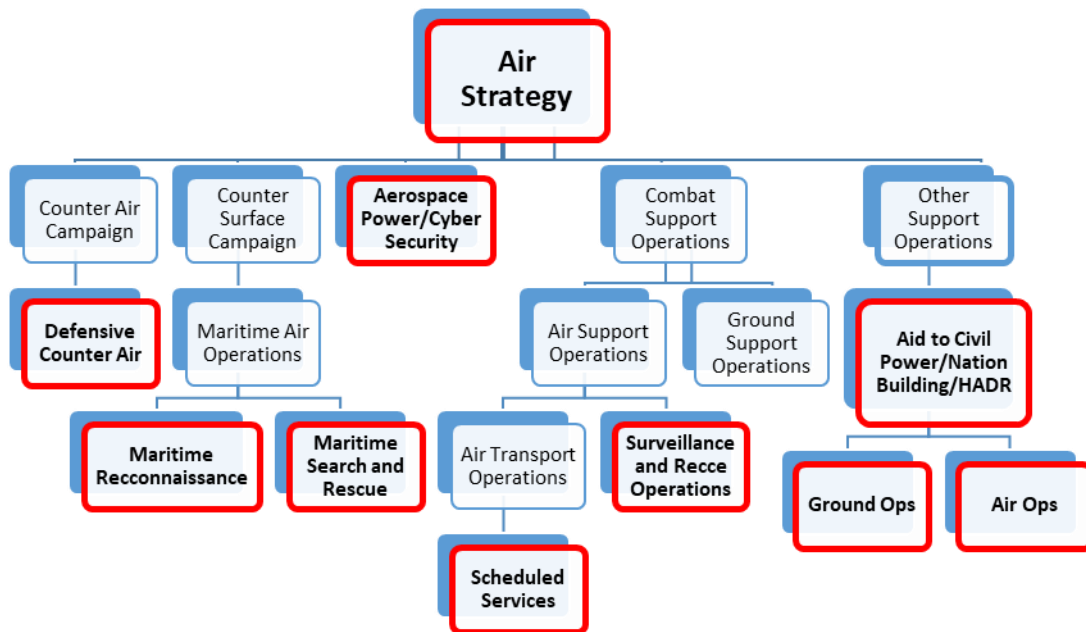
Figure 2. Air Strategy and related Air Operations

Conclusion

Using a simple definition that sustainable growth was growth which addresses the negatives of inequity and environmental impact, and that the inclusion of all stakeholders who could address the negatives was an all-inclusive approach to growth, this paper defined the term all-inclusive approach to sustainable growth as being a holistic approach towards growth. It further went on to describe the inter-relationship between National

Security and Growth of a nation and elaborated on the operations undertaken by the SLAF in the present context flow from National Security Strategy which in turn articulates the National Security Policy which is the blue print for ensuring National Security of a nation. Thus whilst articulating an Airman's perspective in fostering growth by ensuring national security, this paper has a few lessons learnt which should be taken note of for the future.

of National Security can be expected to continue in the future as well.

Lessons Learnt

Whilst air operations such as HADR, both in country and abroad, receives media attention and is the visible side of SLAF air operations conducted in support of national security, critical air operations such as Air Defence of Sri Lanka which is a 24/7 operation rarely gets noticed in the public's eye as does the SLAF's peace keeping air operations presently being conducted in two countries in the African continent.

The SLAF's doctrine evolves, like a doctrine should, based on the environment and capabilities and circumstances have decreed that a number of non-aircraft centric operations have been adopted in support of National Security. A country which has sparse resources should utilise its capabilities in the most appropriate manner.

The SLAF is able to continue its classic role and still perform additional roles in support of civil administration, both in air and on ground, on demand, in times of national need due to the availability of a disciplined, available, multi-skilled and willing Human Resource.

Unless there is an expansion in terms of capability, willingness and professionalism in other sectors of the government, the present non-traditional ground roles undertaken by the SLAF in support

Author Biography

Air Vice Marshal Andrew Wijesuriya was born on 24th November 1966. He received his primary and secondary education at St Peter's College, Colombo and the Colombo International School with a very short stint at St Paul's school Darjeeling, India in-between. He joined the Sri Lanka Air Force as an Officer Cadet of the 16th Intake of Officer Cadets on 5th May 1986 and was commissioned in the rank of Pilot Officer on 27th December 1987 in the Technical Engineering Branch. He holds a Diploma in Quality Management from the Sri Lanka Standards Institute, a Master's degree (Defence Studies) in Management from the Kotelawala Defence Academy, Sri Lanka, a Master's degree in Defence Studies from the University of Kelaniya, Sri Lanka having completed Staff College with the No 1 Defence Services Command and Staff Course at Sapugaskanda, Sri Lanka. He also holds a master's degree in Military Operational Art and Science from the Air University, Alabama, USA and a master's degree in National Security and War Studies from the National Defence University, Islamabad Pakistan.

Sustainable Development Goals Implementations in Bangladesh: National Security and Growth.

Shafqat Munir

Bangladesh Centre for Terrorism Research (BCTR).

It is a real pleasure to be here this afternoon. I am sorry I was not able to join with the session due to some technical difficulties, but it is a real pleasure to be in here this afternoon at the KDU International Research Conference. My sincere appreciation to the University for inviting me I am glad that although we are not able to present physically, technology has made possible for us to be there virtually. My sincere appreciation to Professor Amal Jayawardena for kind introduction. I am really delighted that he is chairing this session. What I intend to do Ladies and Gentlemen this afternoon is to talk to you about the issues of Sustainable Development Goals (SDGs) and how it relates to the national security.

So, what do we mean by Sustainable Development Goals? The United Nations (UN) Member States formally adopted the SDGs agenda on September 25, 2015. The 17 SDGs, and its associated 169 targets with 232 indicators, aim to end poverty, hunger and inequality; act on climate change and the environment; improve access to health and education; care for people and the planet; and build strong institutions and partnerships. What I intend to answer in this power point presentation is how far is Bangladesh into achieving these goals and what can we do about its proper implementation? In this presentation I will talk about what is meant by SDGs, how these SDGs relate to Least Developed Countries, how SDGs can be implemented for National Security and Growth, SDGs and Bangladesh, and how SDGs can be prioritised for developing South Asian Countries Like Bangladesh and Sri Lanka, what the COVID 19 pandemic needs for SDGs implementation, and the way forward.

Previous speakers very rightly said today's understanding on national security. We talk about national security today as no longer about territorial integrity, and military security and all although they are very important. We now look at comprehensive national security. And when we talk about comprehensive national security, development is a key component and that is why SDGs play a very critical role. As I said earlier these SDGs are a follow-up to the Millennium Development Goals (MDGs) adopted in 2000 and completed in 2015. SDGs want to ensure that 'No One is Left Behind'. The new goals have been envisioned to enable countries to utilize their own financial resources and capacity and seek assistance from developed countries on areas where they fall short. SDGs also focus on quality rather than just quantity. The SDGs envisaged itself as integrated, indivisible, multi-dimensional global set of objectives and endorsed the Istanbul Programme of Action (IPoA) and adopted the Addis Ababa Action Agenda (AAAA), within its purview.

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This graphic represents 17 goals of SDGs.

And this graphic represents five fundamentals of SDGs.
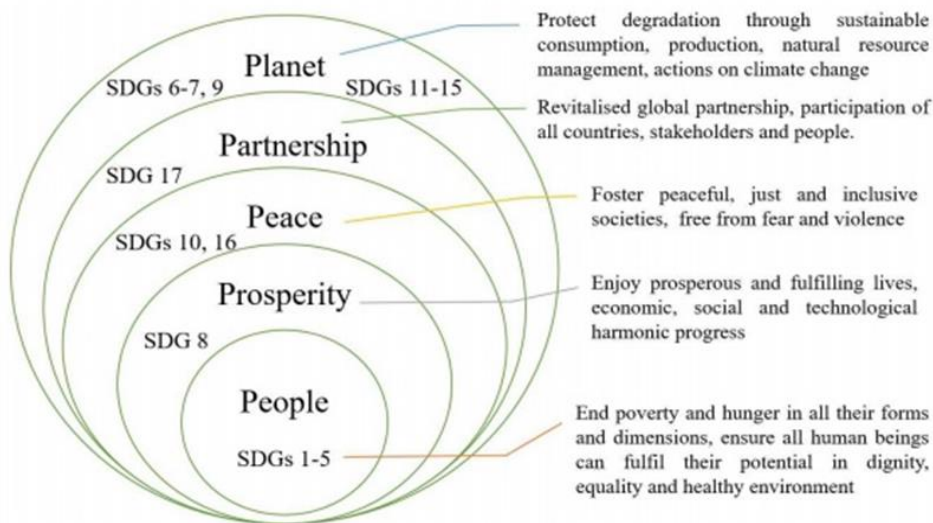
Fig. 2: Five fundamentals of SDGs.

So, what does SDGs mean for Least Developed Countries? There are currently 47 least developed countries (LDCs). They host just over 1 billion people, approximately 13 per cent of the world's population, but account for only 1.2 per cent of global gross domestic product according to UNCTAD. Almost half of the population of LDCs still lives in extreme poverty. At the same time LDCs have the world's fastest population growth rate in the world. At least eighteen of the 169 Sustainable Development Goal targets refer explicitly to the least developed countries, and dozens more are of central importance to their development success. According to the International Institute for Environment and Development, National SDG implementation processes could all too easily get bogged down in endless debates over bureaucratic procedures of target-setting, delivery and monitoring, and fail to achieve change. So this is the issue that we need to consider how implementation can be bogged down due to procedure issues and could be the case of proper implementation.

The SDGs promote sustained economic growth, higher levels of productivity and technological innovation. Apart from ensuring sustainable fulfillment of basic human needs for all. Encouraging entrepreneurship and job creation are key to this, as are effective measures to eradicate forced labour, slavery and human trafficking. With these targets in mind, the goal is to achieve full and productive employment, and decent work, for all women and men by 2030. All the SDGs ensure national growth from the roots, calling for a holistic and integrated approach that reverberates in ensuring a stable and structured National security policy and implementation.

Let's look at Bangladesh and its development in SDGs. For us the integration of SDG plans with the national growth is a challenge as well as an opportunity. A big problem in achieving the SDGs is the relative lack of integration of these goals into the national planning process. The country has at least 14 national plans, policies, and strategies, including The 7th Five Year Plan, The National Social Security Strategy (NSSS) 2015, The National Education; the Primary Education Development Programme (PEDP III) 2011-16 (extended to June 2017), The National Women's Development Policy (NWDP) 2011, The Bangladesh Climate Change Strategy and Action Plan (BCCSAP) 2009. Out of the 17 SDGs, Bangladesh has made considerable progress on reducing extreme poverty (Goal-1) measured by $1.90 a day or by national poverty line. In 2018, the proportion of population living below the international poverty line (absolute poverty) was 11.3 per cent compared to 19.6 per cent in 2010. Ladies and Gentlemen, as you will agree with me within 8 years there is a considerable achievement for a country which has a large population. On the other hand, the proportion of population living below the national poverty line was 21.6 per cent in 2018 as opposed to 31.5 per cent in 2010. Similarly, the progress on expanding coverage of social protection and proportion of government expenditure on services as share of total government expenditure has been remarkable during the last decade. The trends of coverage of social safety net programme

rose to 58.1 per cent (nationally) in 2019 compared to 24.6 per cent in 2010. Bangladesh is moving steadfastly towards ensuring access of 100 per cent of poor household (by 2021) to electricity (Goal-7) well ahead of the target time in 2025; it reached to 92.2 per cent in 2019 which was only 55.26 per cent in 2010.

Bangladesh has made an upward shift in the average annual growth rate (Goal-8) to 7.0 per cent plus in the recent years (FY2015-FY2018), attained 7.86 per cent in FY 2018 and estimated to attain 8.13 per cent in FY 2019. Unfortunately, due to COVID 19 like all economies we are facing some challenges specially ----- [unclear] is very high. Bangladesh has also made good progress in SDG-5 in recent times. The proportion of female members in the Parliament has been slowly increasing over time reaching 20.88 per cent in 2019 which was 12.42 per cent in 2001. In SDG-9, the share of manufacturing value added in GDP in the country has been increasing significantly - exceeding the 2020 milestone in FY2017. The share of manufacturing employment in total employment increased up to 2013 and then leveled off in the last two years. It has been noticed by the policymakers of the country that, of the 17 SDGs – eight Goals are better integrated with the existing national prioritization processes, and about 20 percent of the targets are not currently reflected in national priorities.

SDGs that need prioritizing for developing South Asian countries like Bangladesh and Sri Lanka. Accelerated economic development in the least developed countries (LDCs) is at the centre of efforts to achieve the SDGs. Not only is the incidence of poverty and malnutrition the greatest in this group of countries, but the selection and implementation of effective policies to overcome these problems are also the most challenging there. SDGs implemented for National Security and Growth is important for countries like Sri Lanka and Bangladesh to consider. International cooperation can be strengthened in South Asian region as the importance of South-South and triangular cooperation in international development cooperation has grown significantly

in recent times. Some SDGs are important reference points for the design of national development strategies for LDCs. These are:

• End poverty everywhere (SDG 1);
• End hunger, achieve food security and improved nutrition and promote sustainable agriculture (SDG 2);
• Ensure access to affordable, reliable, sustainable and modern energy for all (SDG 7);
• Promote sustained and sustainable economic growth, full and productive employment and decent work for all (SDG 8);
• Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation (SDG 9);
• Reduce inequality within and among countries (SDG 10);
• Combat climate change (SDG 13);
• Strengthen the means of implementation (SDG 17).

Now today no conversation is complete without COVID-19. Now let's look at what challenges does it offer us. COVID-19 has especially affected the achievement of the SDGs, and has produced many negative short-term impacts on most SDGs. In 2020 alone, millions (estimates range from around 35 to 60 million) could be pushed into extreme poverty, reversing the declining global trend of the last twenty-plus years according to the United Nations. Some 1.6 billion people working in the informal sector including the gig economy are estimated to be at risk of losing their livelihoods. Global GDP is expected to contract sharply in 2020 – estimates range from 3.2 percent to 5.2 per cent- potentially the largest contraction in economic activity since the Great Depression, and far worse than the 2008-2009 global financial crisis.

This graphic shows how COVID 19 has impacted on implementation of SDGs.

Other Challenges are more complex, which have existed well before the pandemic had hit.

• Effective coordination among ministries/divisions is needed for expediting implementation of the SDGs action plan.
• Resource mobilisation, particularly from external sources, remains a big challenge.
• The National Social Security requires substantial increase in resources and streamlined efforts for implementation.
• Capacity of the National Statistical Organisation has to be accelerated to generate data required for tracking SDG progresses.
• Eradication of violence against women, prevention of child marriage and addressing gender digital divide.
• Energy pricing and subsidies present a challenge to the economy.
• Inconsistency between skills in demand and supply, high cost of migration etc.
• Highly educated women face high unemployment rates.
• The net FDI flow has been low and concentrated on a few sectors.
• Recent influx of Rohingya refugees from Myanmar is putting pressure on forests in Teknaf-Cox's Bazar range. Already 6000 acres of forest land have been allotted for temporary housing of the refugees.
• LDC graduation may pose additional challenges in future in terms of losing international trade preferences and support mechanism.
• Skill issue with potential migrant workers requires substantial attention.

Now let's look at the way forward. Accelerated investment in agricultural research for development of stress tolerant crop varieties and technological innovation is necessary (Tk 1.0 billion or 100 crore was earmarked in the last budget). Encouraging private investment through infrastructure development and promoting Special Economic Zones. Expanding social protection programmes and microfinance programmes. The government is introducing highly efficient power plants to the national power grid. Eligible single cycle power plants are being upgraded to combined cycle power plants. All the upcoming coal power plants are being equipped

with latest ultra-supercritical technology, flue gas desulphurization and electrostatic precipitator to minimize the impact on environment.

In case of regional cooperation, the following recommendations could be considered:
• Establishment of regional platform for exchanging implementation experiences of SDGs and best practices by the countries.
• Collaboration among the countries for attaining regional commitment for addressing the
• Exploring opportunities for creating regional financing support to achieve SDGs.
• Challenges faced in implementation of SDGs.

We also need to look at reinforcing the SDGs through Crisis Response and Recovery considering the Pandemic:

• Maintain past progress made towards eradicating basic deprivations.
• Accelerate the universal provision of quality essential services.
• Reverse course on the degradation of nature.

With that I would like to finish my presentation. I would like to welcome your questions latter. Once

again, my sincere thanks to KDU for inviting me to this conference.

Ayubowan!

Thank you.

Author Biography

Mr Shafqat Munir is a Research Fellow and Head of Bangladesh Centre for Terrorism Research (BCTR).
He recently completed Fellowship on Indo Pacific Security Studies (FIPSS) at the Daniel K. Inouye Asia-Pacific Center for Security Studies. As part of the FIPSS fellowship, Mr. Munir completed the Advanced Security Cooperation (ASC 18-2) course at the DKI APCSS. ASC 18-2 brought together over one hundred participants from across South Asia, South East Asia, Northeast Asia, Oceania and the Americas to look at the intricacies of Security Cooperation.

Post-COVID-19 World Order: An Indian Perspective

Professor Harsh V Pant

Director Studies & Head Strategic Studies Programme - Observer Research Foundation - India

Let me start by thanking the organizers for having me as a part of this discussion today. Although the different parts of the world are trying how to figure out to interact with each other. I think the virtual world is one reality that at least we can come together for academic exchanges. It is wonderful. It is great that for organizers for inviting me and it is wonderful to become a part of this conversation.

I will talk about few aspects about the global order and how in sitting in New Delhi this global order shift looks like and present some of perspectives. And I will try to lay out some of the larger trend lines and shifts that are possibly being understood from New Delhi. So we can also think about New Delhi's priorities over the next few years emerging both foreign security policies and domestic policies as well.

Now, if you look at what is happening to the Global order there are lots of discussions around post-COVID-19 global order. There are lots of debates around what will outlast COVID-19 and what predicts COVID-19 and what doesn't and how COVID-19 itself is shaping the way we live, we exist, we communicate, we travel, we engage with each other both as individuals and as larger collective of individuals in being in the societies and nations.

The first aspect that I want to underscore in here that a lot of debated discussion that we see today about the COVID-19 impact on the global order is actually not so much related to COVID-19. What is happening to the global order was happening before COVID-19. COVID-19 pandemic has in some ways accentuated some of those trends. But those trends were visible some time back even before COVID-19. So in the sense lots of trends particularly visible before COVID-19. And it is very interesting to see once things stabilize how much

of the factor COVID-19 continues to play in the larger evolution of the global order.

First point that I want to lay out is the structural point. It is something that is very visible. It is something that is demonstrable, and it is something that all nation states bigger or small want to figure out. This is the structural reality of the great power politics. now even before COVID-19 it was very clear that the great power politics that we have known a few years since the end of the Cold War is coming to an end. The great power contestation was becoming sharper. the rise of China as a reality the way to shaping the larger discourse on global power, global politics becoming very palpable very relevant in our policy discussions. On the other hand, you have the existing global power the existing superpower. The existing biggest power in the world - the United States of America is trying to excert its own control over this shift. Trying to continue to be this big power. Trying to continue to be the big power. The larger global anchor in the global power contestation. So you have this very interesting phenomena that had emerged even before the COVID-19. You have the existing power trying to maintain its status in the international environment. And you have the emerging power that was trying to almost push its way into the global hierarchy. And you have the US-China contest that is becoming very palpable. Donald Trump ever since he came to office was very categorical. The US President was very categorical that he viewed the great power contestation is the defining element in American strategy in American strategy has evolved over last few years in this direction that makes great power contestation central to America's understanding of the evolution of the global order. So, in that sense, the great power contestation has emerged very important before COVID-19. And COVID-19 has accentuated those trends. What is happening

in the last few years is quite extraordinary that as the rest of the world grappled with the aftermath of pandemic. Some nations find it very difficult to manage and some nations can manage very well. But no one can have denied that all nations are finding that it is extremely difficult to come up with coherent policy response that can achieve results in the short-term and in the medium-term.

And that point in time you have China that is almost trying to change the geopolitical status around the world. Around China's periphery there are lots of change from South China Sea and East China Sea: the tensions to merge Taiwan strait, tensions to merge the Himalayan borders. And in the larger global institutional architecture the tension is to merge. I will come to the institution in a moment. But the larger paradigm of great power contestation is becoming sharper. If you look at the conversation between major powers like Washington and Beijing, and I think that is going to be the fundamental reality for all nation states.

So, in some ways the rise of China is presenting problems. On the other hand, you have the relative decreasing role of the US from various power regions of the world that is creating lots of incite in large part of the world about the future of the global order. So, in that sense you have the emergence of new geographies like Indo-Pacific which has become the key to understanding global politics today. The shift of the center of gravity of world politics, the center of gravity of global economics has shifted to the Indo-Pacific. You have major power contestation taking place at unprecedented level. And unlike the Euro-Atlantic community, unlike the Euro-Atlantic geography Indo-Pacific today is likely to be predominant to future of global order. Therefore, almost all the debates today are centered around Indo-Pacific. And that is why Indo-Pacific becomes such an important part of the discourse. And that is why countries like India, countries like Sri Lanka, countries like China and Japan, countries like US, France and Britain all are looking at Indo-Pacific as the key theater where important developments shape the emerging global order. This is the one

structural framework to understand the present trends, and a country like India is also trying to become a part of this –
trying to understand this and tryng to grapple with the challenges. It is very evident from the challenge that we are facing in the Himalayan border of the present times, but it goes much beyond that. It goes into the maritime domain, it goes into the institutional domain, and it goes into the normative domain as well.

The second order issue in here is that once you look at the structural reality what is the institutional reality? The institutional reality today is once again derived from this contestation. Institutions, multilateral institutions of today, they are not really able to live up to the challenge that contemporary world is exposing. The challenge is how do you reinvent the United Nations that was created for the post Second World War order. And how do you reorient towards the realities of today? And I think that anyone has a good answer to that. I don't think that there is a good paradigm that has evolved. But the challenges are very fundamental challenges about a multilateral global order. And in some ways that is the heart of the present dilemmas. Because multilateralism just when it is most needed has been found wanting. If you look at the pandemic, if you look at the COVID-19, the ability of the global multilateral order to manage this crisis has been found to be wanting. It is extremely inadequate. We just have to look at the World Health Organization. The initial months of this crisis how troubled from one mistake to another how one particular country is trying to dominate the work of World Health Organization and that led to a spiraling of this crisis.

So, there is this dimension of what the institutions do that are not able to manage the trends of realities of today? International institutions, multilateral institutions of the day are not really up to the mark whether it is UN Security Council, whether it is WHO, or whether it is WTO - World Trade Organization. And the other institutions created at the time of the end of the Second World War. They look tired, they clearly do not show the

ability to transcend ideological restrictions in the past and move towards new realities with new issues, new challenges, new powers and new norms.

So, we have the situation where the institutional architecture is pausing a big challenge, we don't have institutions that actually can relate to new realities for example, if you look at the Indo-Pacific geography which increasingly dominate the discourse. In the Indo-Pacific domain there are hardly any multilateral institutions that work. And therefore, how can we construct security, economic and normative architecture in that part of the world? It is a big dilemma and it is a big challenge for the countries like India. Therefore, we are grappling with the challenge like the country of India what do we find? We find that issue-based alliances are emerging. Minilaterals plurilaterals are emerging. If you just look at the Indo-Pacific domain there are various trilateral and quadrilaterals which have generated lots of discussions. The quadrilateral which includes America, Japan, Australia and India that is generating lots of debates about future liability of such platforms. Partly because the existing platforms, existing institutions are not really capable of managing geopolitics of the Indo-Pacific and the larger global order. So in that sense these plurilaterals, these minilaterals, these coalitions that have emerged in the world have to find a way of managing collective action for problems, just like it was tried to find in the aftermath of the Second World War, but in this case it is going to be a huge challenge about major power contestation is very high as major powers are looking at it in different ways. Institutional capabilities are not at the moment in the forms that are needed to manage contemporary trends, contemporary challenges and contemporary threats. So, that is the second level of engagement with the global order. You have the structural problem and you have the institutional problem.

And finally, I would like to focus your attention to the fact that there is also a problem at the normative level. Norms that have evolved over the last few years those norms have become

instrumental in a way into state relations have been framed. So some of these norms go back to 1945 again at the end of the Second World War. Since then there had been a rapid evolution for these norms. There was a rapid evolution in norms at the end of the Cold War where you recall Francis Fukuyama who came up with the thesis of End of History. The idea is that the history is a contestation of ideas. And then the level of ideas that the West introduced free market capitalism and liberal democracy will be the order of the day. So in that sense such norms that involved in that face. We are looking at a great degree of turmoil in the way of those norms are introduced and interpreted. And whether you look at the cyber domain, whether you look at maritime domain, whether you look at the emerging strategic technologies, whether you look at how you collaborate even on pandemics where you see increasing vaccine of nationalism today. There is actual challenge asto what kind of norms can be created so that interstate relations can be conducted in much more peaceful and stable manner. At this point those norms remain very weak. And I think one particular norm which I think has a great degree of salience is evolving very rapidly, and I will call it the norm of globalization.

Again, at the end of the Cold War, the idea that now you have countries of free market capitalism and liberal democracy floor across the world. That is problematic. And the face of globalization that emerged at the end of the Cold War seems to be coming to an end today with this idea of de-globalization which have been nurtured in the few parts of the world. So it is very interesting that the powers who at one point of the time were the biggest voters of the globalization are today moving backwards in certain areas. American President called 'America First' should be the priority. You have Great Britain that has been withdrawing from the European Union. So, there is a sense where the globalization should be renegotiated among various stakeholders. Leading to this idea of de-globalization that is going forward there are fragmentations of globalization. Countries would be reluctant to

trade across domains across countries. Especially because in the recent crises many countries have found that if you become dependent on one particular country, if you become over dependent on one particular country, that over dependency would lead to subtle crises. So in that sense when you see this de-globalization being talked about. In India it has been discussed in terms of 'Self Reliance India'. Indian policy makers are talking on how India should be more self-reliant in critical sense. Now this self-reliance is not the self-reliance of the Cold War where the autarky was the dominant narrative. This self-reliance is likely different. It is about engaging with the like-minded countries and creating frameworks to engage on economic and technological issues. So it is going to be very interesting to see how this face of globalization is to be evolved which is fragmented, which is going to be differentiated, which is going to be amongst countries where there is a great degree of convergence on political and strategic matters. This way the shift is happened. In the past, the idea was if you trade more, it develops great political comfort with each other, greater strategic reliance among each other. Today the argument is that you have to have strategic convergence if you want to trade more and if you want to develop different technologies together. And that is another different pace of globalization in some degree called de-globalization. But I would say it is a different version of globalization, a more fragmented globalization that is emerging again as a norm also as an institutional framework. When you have Great Britain asking for democracies to work together to develop 5G technology, London is basically articulating the need that countries that are like-minded in their approach on strategic matters should be working collaboratively on developing the next generation of technologies, emerging technologies because that is what is going to determine the future.

Therefore, if you look at it on multiple ways structurally, institutionally, normatively you will find that challenges are everywhere. COVID-19 has accentuated these trends. And for a country like India, this is almost inflection point in multiple levels. Inflection point in terms of understanding real challenge on strategic level. So you have China problem which is clarifying lot of assumptions on foreign policy. We have a challenge at the economic level and geo-economic level where economic globalization is being reinterpreted. And we have a challenge in institutional level, where India has to either help create new platforms, new institutes or try to reorient the existing institutions in ways that can be most productive and that can be leading to a greater collective action from member states towards distinct and emerging problems. And COVID-19 has really accentuated these trends. The fact that earlier this is done, earlier institutional and normative transformations are understood and adopted, the better it would have done for countries that are trying to give a new shape to new order. So in that sense COVID-19 has really given a new definition to the existing problems. More broadly, for a country like India the challenges are coming from multiple directions and for policy makers in New Delhi, adaptability would be the key to transform these problems into effective policy making as well as for greater role that India foresees for itself in the larger committee of nations. Thank you,

Author Biography

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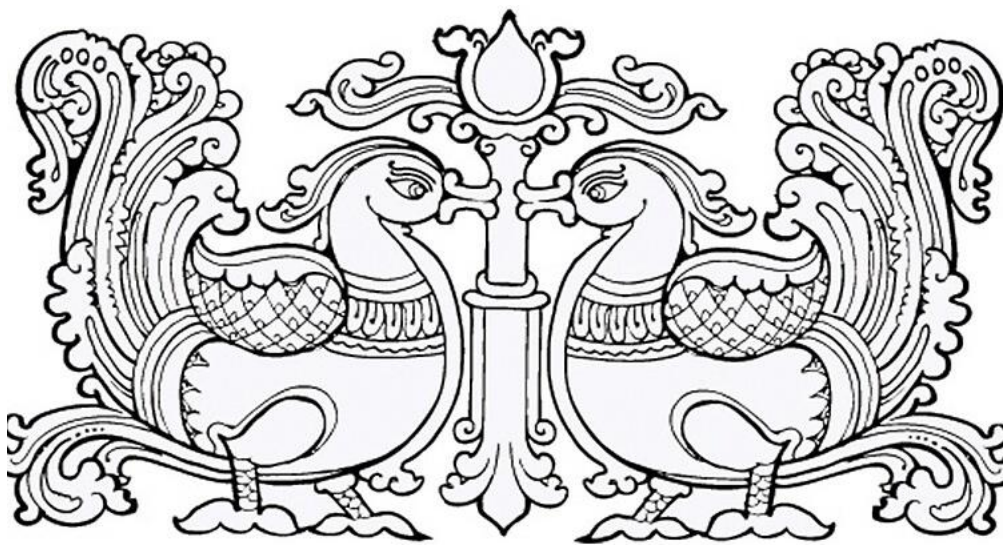
Technical Sessions

Summary of the Technical Sessions

The first technical session of the Defence and Strategic Studies Session was chaired by Senior Professor Nayani Melagoda, Dean, Faculty of Graduate Studies, University of Colombo under the theme "A Secure Nation: Maritime Security Issues". First presentation was delivered by Lieutenant Commander SACR Kulatunga, Sri Lanka Navy on the title of "The Significance of Co-operative Maritime Diplomacy to Curb Transnational Maritime Crimes in Sri Lanka". The presenter mainly pointed out the need of comprehensive understanding of maritime concepts and theories in the field of maritime warfare. Secondly the paper on "Safety of Life at Sea: Current Status of Sri Lanka" was delivered by Lieutenant Commander M Jayatilaka, Sri Lanka Navy. He stressed out that the safety of life and property at sea is considered vital in its obligation as a signatory to the United Nations Convention on the Law of the Sea and in pursuance of Sri Lanka's maritime interests. Then, the third presentation was presented by Brigadier C Ranaweera, Sri Lanka Army under the title of "Hambantota: Revival of Maritime Silk Route Indo-Pacific Strategy, Power Rivalry in the Region and its Impact on Sri Lanka". The presenter highlighted growing socio-politico and geo-strategic concerns of the India, China, USA and the other key players in the Indo-Pacific Region and it impact on Sri Lanka. The fourth presentation on "Prospects of Improving Civil-Military Integration to Address Maritime Drug Trafficking in Sri Lanka" was delivered by Lieutenant Commander BARI Abeysekara, Sri Lanka Navy by demonstrating his main argument that the prospects of enhancing Civil-Military integration can be a positively influence on maritime drug trafficking within the Sri Lankan context. Then the final paper of the session titled as "The Indo-Pacific: An Examination of Regional Instruments for Improved Coordination" was presented by W Rajapakshe by concluding the fact that the increased number of regional groupings has reduced the level of trust within the Indo-Pacific thus, calling for more synergies and understanding among international instruments.

The parallel Session of the same session was chaired by Mrs. Kulani Wijayabahu, Department of International Relations under the theme "Sri Lanka: Historical Trajectories". The first presentation of the session was delivered by Ms. PMP Aloka on the theme of "External Compulsions that Fashioned Sri Lanka's Historical Mosaic". Ms. Aloka proved her main argument that Sri Lanka has at times been more influential and at times less influential to other countries over the decades. Secondly Ms. HGAP Gunawardana delivered her presentation on the theme "The First War of Unification in Sri Lanka: Critical Analysis" by justifying her argument that the first war of unification and not as an ethnic conflict while critically analyzing each stage of the Elara-Duttagamini war. The third presentation was presented by Mrs. S Swarnasinghe under the topic "Human Resource Functions of the Tank Culture in Sri Lanka". The presenter mainly demonstrated the concepts belonged to the theories of oriental despotism and human resource management. As the fourth speaker of the session Ms. DD Samaragunarathna presented on "The Drift of Ancient Kingdoms in the Post-Polonnaruwa Period: A Critical View of the Causes". Ms. Samaragunarathna elaborated causes of the drift of the medieval ancient kingdoms, especially in the post-Polonnaruwa period by examining the interpretations which have brought out by number of scholars. The final paper of the session was delivered by Ms. SC Hapuarachchi on "Economic Effects of War on a Country: An Overlook of Sri Lankan Economy During the Period of Civil War" by explaining the effects that the civil war has had on Sri Lanka's economy under the aspects of infrastructure, tourism, agriculture and industries, external trade and the Unemployment.

The second session of the Defence and Strategic Studies was chaired by Amb (Retd.) Bernard Goonethilleke from the Pathfinder Foundation under the theme "Approaches to National

Security and Leadership Roles". The first presentation of this session was delivered by Ms. KERL Fernando on "Analyzing Covid-19 as a Modern Strategy in International Power Game". Ms. Fernando specifically stressed out that it is required to understand new global geopolitical realities of superpowers by means of soft power rivalry and further to navigate its impact on State security.

The second presentation on the "Impact of Leader Images in Sri Lanka's Foreign Policy Making from 2005 to 2019" was presented by Mr. PR Gunaratne. Mr. Gunaratne attempted to analyze whether leader perceptions of Sri Lanka are the sole determining factors of a foreign policy which alternated between pro – China and pro – West. As the third speaker of the session, Mr. T Amunugama presented his paper on "The Role of Sri Lanka's Private Security Sector in Assisting the Nation During Pandemics and Natural disasters". The presenter concluded that Private Security Sector can play vital a support role during national emergencies, natural disasters and pandemic situations. The fourth presentation of the session was delivered by LCdr(L) BARS Bamunusinghe, Sri Lanka Navy on the "Introduction of Nuclear Power Plants to Sri Lanka: National Growth and Security Perspectives". His main argument was that the Energy security is an element of national security and a pre-requisite of the development process of a country due to the nexus between national security and national growth. Then the fifth presentation of the session was presented by Ms. DGN Sanjeewani on the title "The Impact of EU'S Externalization Policies on Libya" by critically analyzing the Common European Asylum Polices. The final paper of the session was presented by Mr. AABDP Abewardhana on the topic of "A Holistic Approach to National Security of Sri Lanka". The author had taken threat perception was into consideration to select the most suitable aspects to form a holistic approach to the national security of Sri Lanka and suggested an appropriate holistic approach to Sri Lanka by considering those factors and the present situation.

The parallel Session of the second technical session was chaired by Brigadier ULJS Perera RSP USP psc, Dean, Faculty of Defence and Strategic Studies, General Sir John Kotelawala Defence University, under the theme of "An Integrated Professional Approach to National Security". The first paper of the session was presented by Mr. M Rishad on the topic of "Corruption Circle of Sri Lanka: The Second Largest Enemy to the State". At the end of his presentation, he showed the deep-rooted viciousness in the public sector. The second personation on "Holistic Framework for Migrating Military Applications into Cloud Computing and Ensure National Security and National Growth of Sri Lanka" was delivered by Mrs. RMS Veronika by stressing out the fact that the new technologies such as cloud computing can play an important role in organizations flexibility and productivity. Then the third speech on the National Security and Health: Communication in a Pandemic" was presented by Ms. MEP Ranmuthugala, and she analyzed multiple campaigns that leads to identifying a practical and tested method of advertising/communicating health messages. The final paper of the session was presented by Ms. WMKD Wijesinghe on "The Strategic Implications of China's Belt and Road Initiative in Central Asia". The presenter explored her intentions by saying Central Asia would only under a specific set of conditions become the platform for a new great game but the parameters for these conditions are unilaterally to emerge in the forseeable future.

The third session of the Defence and Strategic Studies was chaired by Dr. HR Vidanage, Department Strategic Studies, General Sir John Kotelawla Defence University under the theme on "Extremism as a National Security Threat". The first presenter, Mr. P Abhayaratne delivered his findings on the "Recruitment Rhetoric: Media Strategies of the Islamic State and Al-Qa`ida" by providing recommendations for Sri Lanka to counter the spread of 'Islamaphobia', improve social integration, and counter extremism at a local level are presented for consideration by

policymakers. The second presentation was presented by Mr. A Fuard on "The Drivers of Islamist Extremism in Sri Lanka". A Fuard expressed his views on the drivers of Salafi Jihadist extremism in Sri Lanka which can be framed within two distinct periods that reshaped and redefined Jihadist militancy and terrorism in the island. The third paper on "Re-thinking the Sri Lankan Approach of Countering Islamist Violent Extremism" was presented by Ms. SUW Jayaratne. Ms. SUW Jayaratne highlighted four aspects in dealing with Islamist extremism in Sri Lanka namely the importance of understanding the changing nature of Islamist extremism in the periphery, the influence of Islamist extremism in the core, mutually exclusiveness of the growing Islamist extremism with the counter approach implemented in Sri Lanka and reasons for such mismatch in counter approach and the problem of countering Islamist extremism in Sri Lanka. The last paper was delivered by AWST Gunasinghe on "Extremism as a Non-traditional Security Threat: An Analysis on Sri Lanka Army Infantry Battalions' Military Preparedness to Combat Extremism". The author mentioned that the Sri Lanka Military forces must ride the wave of 4IR and exploit game changing technologies and concepts, such as Internet of Things, System of Systems, Augmented Reality, Artificial Intelligence and 3D printing

The fourth session of the Defence and Strategic Studies was chaired by Dr Chanaka Thalpahewa, Country Programme Manager UN –Habitat, Sri Lanka. The first presentation on the session was delivered by Flying Instructor KGLK Kapugama on "Metamorphosing Sri Lankan Old School Military Thoughts by Incorporating Artificial Intelligence to Face the New Normalities". He discussed the Sri Lanka Military forces must ride the wave of 4IR and exploit game changing technologies and concepts, such as Internet of Things, System of Systems, Augmented Reality, Artificial Intelligence and 3D printing. The second presentation on the "Emerging CBRNE Threat from Industrial and Medical Fields to the National Security of Sri Lanka" was presented by Squadron Leader ADR Wickramarathne. The presentation mainly included the fact that the threats related to CBRNE use are evolving rapidly alongside changes in the political environment and developments in technology. The third presentation was delivered by MMC Mirahawatta on "Food Security and its impact on National Security of Sri Lanka. The presenter brought out a holistic approach that can be used to ensure the food security which is one of the main parameters of the national security. The final paper of the session was presented by Mr. R Amarasinghe on "Big Data Analytics: Best Practices from Singapore in the Context of Sri Lanka's Digital Defence Requirements". The presentation provided a practical model for use by the Sri Lankan government based on best practices from Singapore that will help the island nation increase its security for its virtual borders. This will help it stay off security threats and economic threats.

Each technical session was followed by a question and answer session.

The Significance of Co-operative Maritime Diplomacy to Curb Transnational Maritime Crimes in Sri Lanka

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Abstract— In this paper, the researcher attempts to research contemporary requirement of Sri Lanka to build better international relationship with countries through co-operative maritime diplomacy, in order to curb the transnational crimes to the Island. This area of study mainly concentrates on management of international relations through the maritime domain. The co-operative maritime diplomacy is a sub concept of maritime diplomacy and it is used for maritime assets and resources to manage international relations with co-operation. The Island features of Sri Lanka and geo strategic location in the Indian Ocean Region, give greater prospects to exploit maritime opportunities. On the other hand, this country faces many non-traditional security issues. Therefore, Sri Lanka has to manage the maritime environment around the country, building better understanding with regional and extra regional countries to counter this menace which greatly affects the national security. My research problem highlighted the timely requirement of interstate cooperation to curb transnational maritime crimes in Sri Lanka. This puzzling issue highlights the significance of understanding the concept of cooperative maritime diplomacy and its use. The objective of this paper is to draw attention to understand the methods that could be used under co-operative maritime diplomacy to curb the transnational maritime threat to the country. The researcher has selected qualitative research method with collecting data from secondary sources and this includes scholarly articles, books, case studies, journals, etc. Further, the researcher forwards data with his personnel observations. A theoretical review is discussed with the theory of 'Strategy as Practice'.

Keywords: Co-operation, Interstate, Strategy

Introduction

In this paper, the researcher is attempts to determine the concept of co-operative maritime diplomacy to curb transnational maritime crimes in Sri Lanka. These issues are mainly non-traditional in nature. Non-traditional security factors are extremely wide-ranging, mainly; economic security, financial security, ecological security, environmental security, information security, resource security, terrorism, weapon proliferation, the spread of epidemics, transnational crimes, narcotics and weapon smuggling, illegal migration, piracy, money laundering, and so on' (Craig, 2007, p. 103) . In this research, given more prominence to non-traditional security issues which is affecting to maritime domain. The researcher is interested in knowing and possibility of applying the strategy of 'co-operative maritime diplomacy' as an effective tool to counter these threats to the country.

'Diplomacy' is basically the management of international relations. Therefore, maritime diplomacy is management of international relations through the maritime domain (Miere, 2014, p. 7). The co-operative maritime diplomacy could be further elaborated as an attempt to support soft power through the use of hard power assets. This area of study encompasses a spectrum of activities, such as port visits, combine maritime exercises, civil maritime activities, combine operations, combine patrol, intelligence operations, maritime surveillance etc. The components are not only a Navy and Coast Guard whereas, commercial and civil maritime elements such as the Department of Fishery, Department of Custom, Narcotic Bureau, Port Authority,

Department of Emigration and Immigration etc. also play a vital role in a country for diplomatic activities. According to the readings of the researcher, maritime diplomacy is largely neglected in academic literature and rarely witness studies relevant to the Sri Lankan maritime domain in present day literature. Further, it is rare to find any clauses specifically use the term of 'maritime diplomacy' in the Sri Lankan foreign policy (BIDTI, 2009). The use of maritime diplomacy can reflect the changes in the international order and reduce the international tension. This research has specifically put on attention over combine maritime operations and sharing maritime intelligence to conduct operations. Therefore, co-operative maritime diplomacy could be a valuable tool to curb transnational maritime threats to the country.

With the geographical location of Sri Lanka all the main sailing lanes in the region are running closer to her. Adams Bridge is a barrier for sailing which connects Sri Lanka with Indian sub-continent. These geographical features of Sri Lanka faced horrific consequence when transferring people and goods to the country from the history (Kulatunga, 2018). The "Easter bomb blasts" taken place in Sri Lanka on 21 April 2019 has become an eye opener for better maritime protection to curb smuggling of weapon and explosive and illegal migration to the island. Further, existing COVID 19 pandemic has given greater impact to the national security of the country, Island nature of Sri Lanka given an advantage to restrain from border crossing. However, any potential transmitting of diseases through the maritime borders cannot be neglected at this juncture. Therefore, responsibility is lies over Sri Lanka Navy been the most vital maritime security component in the country. Further, navies and coast guards are the one of the main constituents of sea power. Sri Lankan maritime strategies need to develop with understanding the priority of the requirement for national security. Maritime strategies need to be developed by understanding the suitability of practice them as a phenomenon, perspective and philosophy. The Sri Lankan maritime strategies must inculcate with maritime diplomatic approaches to garner political and international relation advantages.

In this research, the main concern has been given to the transnational maritime crimes to the country. There are reported incidents of Sri Lanka that continue to be utilized as a transit point for drug smuggling from the 'Golden Triangle', which is lying through Thailand, Myanmar and Laos in the South East Asia and the 'Golden Crescent', which is lying through Iran, Afghanistan and Pakistan in the South Asia (Wijegunarathne, 2012). Sri Lankan geo-strategic location in the IOR has given the most suitable platform for contraband to passes to another part of the word. This has given a negative impact to the international image of the country and it has given direct impact to the Sri Lankan national security and national security of the countries in the region. On the other hand, Sri Lanka faced notable implications by affecting political-economic-cultural-societal stability of the country. Therefore, countering strategies should be implemented as practices. This vacuum would be addressed in this research based on the theory of 'Strategy as Practice', through the view of 'Cooperative Maritime Diplomacy'.

Methodology and Experimental Design

This research is about the social behavior of maritime security components by applying of strategies into practice of international relations. This broader area of social science needs to prove with logical reasoning of theories based on laws of cause and effect and this will helpful to understand the ontological and the epistemological path to this study. The researcher will be using qualitative methods to collect data. This will be collected from the secondary source of books, articles, journals, website releases, dissertations, video and audio materials and published data of expertise in the field of maritime strategies and researcher's own observations.

Result

A. Theory of 'Strategy as Practice'.
Policy makers build strategies to maintain the behaviour of the organizations and transfer to practitioners in the respective field. The strategy is to understand as an activity or practice, strategy as nothing only to have, but something that people do. Strategic management is art or science, of governing an organization with the aim of implementing intentions (Golsorkhi et al., 2010). When apply this theory into the Sri Lankan maritime domain and the researched area of maritime diplomacy, Sri Lankan diplomacy must inculcate with maritime diplomatic activities and a way forward. The bi-lateral and multilateral

relationship must incorporate with maritime diplomatic sections specifically related to counter transnational maritime crimes. Those are the security strategies and national security policies which shape the maritime security and, these strategies must flow to the practitioners in the field of maritime domain. There are many areas come under security in diplomacy, such as, political intelligence, espionage, defence, ground security, confidentiality of documents and many. There should be a concern to maritime diplomacy in Sri Lankan context, and strategic decision-making process in foreign cooperation.

The 'Practice' is a very special concept and by studying practices enable one to examine the issues that are relevant to those are dealing with building strategies. This is helping to understand suitable theoretical background to address particular issues (Golsorkhi et al., 2010,p.1) Therefore, there should be a fine amalgamation of co-operative maritime diplomacy and its uses in the reality. The idea of maritime diplomacy as a maritime strategy in Sri Lanka should be deeply studied and discussed when developing national security policies and the same must come to the agendas of practitioners.

B.   Concept of co-operative maritime diplomacy
The maritime diplomacy, also older term of 'Gunboat diplomacy in the bygone era, are the same concept. Naval diplomacy only addresses the naval components, whereas, there are many non-military agencies that can have similar diplomatic effects in this domain. Therefore, maritime diplomacy broadly covers all the military and non-military components engage to build international relationships. There are a variety of activities, which come under maritime diplomacy, namely, port visits, humanitarian assistance, co-operative security, combine exercise, maritime intelligence operations, bi-lateral and multilateral agreements on maritime trade, maritime conference diplomacy, etc. Further, according to Miere, maritime diplomacy could be divided into subcategories of co-operative, persuasive and coercive maritime diplomacy. This research specifically studies the subject areas of co-operative maritime diplomacy.

The co-operative maritime diplomacy is an attempt to support soft power through the use of hard power assets. It is not only naval components are engaged in these events, coast guard, maritime

constabulary agencies also able to undertake maritime diplomatic operations. Following figure 1 illustrated the forms of co-operative maritime diplomacy and its goals.
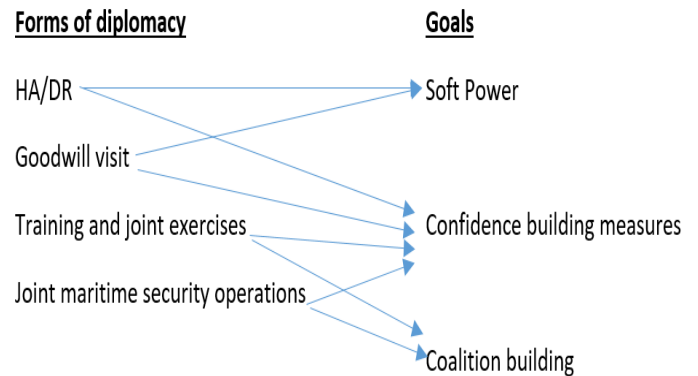
Figure 1. Form of co-operative maritime diplomacy and its goals (Miere, 2014, p. 9)

According to the above figure, researcher has given concern only to the joint maritime security operations, where it achieves the goals of confidence building measures and coalition building. The joint maritime security operations, with regional and extra-regional countries are essential to conduct to curb transnational maritime security threats to Sri Lanka and it will provide win-win situation to every country. This area of subject need to develop as a national security strategy to identify the possible transnational maritime threats. It is mandatory to take initiative and appreciate the current situation in the country and design a combine operation plan along with selected countries. Therefore, it is worth to understand the key transnational maritime crimes in Sri Lanka, to implement such a maritime strategy.

C.   Transnational organized crimes
Under the Organized Crime Convention in United Nation Office on Drugs and Crime (UNODC), Transnational Organized Crime (TOC) is any serious transnational offence undertaken by three or more people with the aim of material gain. According to the report of 'Globalization of Crimes', UNODC (2010) Human trafficking, migrant smuggling, drug trafficking, firearm trafficking, environment resource trafficking, product counterfeiting, maritime piracy and cyber-crimes are most notable transnational crimes in the globe. Therefore, Sri Lanka also vulnerable to these crimes and island features and geostrategic location gain keen attention from non-state actors.

The narcotic menace to the country, mainly could witness through the directions of 'Golden Crescent'. Iran, Afghanistan and Pakistan are the main source countries for opium trade and India is a main source country for cannabis (Kerala Ganja) trade. Both the threats are mainly lying over the maritime environment, where the concept of co-operative maritime diplomacy has to apply as joint maritime security operations. This would achieve the goals of confidence and coalition building measures. Therefore, it is compulsory to discuss the threats to the Sri Lankan maritime environment and cooperative maritime diplomatic strategies in in-depth, which could be applied as a possible solution.

The recently developed security situation with catastrophe of 'Easter Bombing' has developed the attention of the world with the growth of Islamic extremism. The existing threat could be identified as a radicalisation of human to conduct violent extremist activities against another human being and spreading their wrong religious interpretations or ideologies in transnational nature. Human Security is the most vulnerable aspects of security in this context. Human security means "Protecting fundamental freedoms, freedoms that are the essence of life. It means creating political, social, environmental, economic, military and cultural systems that together give people the building blocks of survival, livelihood and dignity" (Browning, 2013). Therefore, human security implication has become a greater challenge to domestic security with violent extremist activities. The regional extremist groups could use the maritime environment for transport people and goods, and this definitely could impact the human security.

The violent extremist activities relate with Radicalisation. Therefore, the process of radicalisation is worth to understand. Radicalisation is a process. It is not happening in overnight. According to Hafez (2015) Radicalisation is legitimize use of violence as a method to affect societal and political change. He has researched and introduced the Radicalisation puzzle, where there are four components which has given great impact of violent extremist activities, namely, *grievances, networks, enabling support structure and ideologies*. In this paper, researcher has taken keen interest to explore the effects of these areas through maritime domain. The network and enabling support structure, are the key areas which could use the maritime

environment as a platform to support their activities. Sri Lanka being an island nation, possibility of smuggling explosive, chemicals, biological components which could spread epidemics, radioactive materials, underwater sabotage, weapons smuggling and illegal migration to the country, through sea transport cannot be ruled out. The transnational nature of these crimes has strong international link through physical and conceptual network to support the violent extremist activities. The past insurgency period in Sri Lanka, the LTTE has used the sea as a medium of transport to smuggle their items. 'Heroin is routed via Sri Lanka from Pakistan or India on a big scale by sea, by containers and mechanized fishing craft' (Wijegunarathne, 2012). Admiral Colombage argued that money raised by these illegal means, the LTTE used to purchase weapons and ammunitions and transported to Sri Lanka via sea routes (Colombage, 2017). Similarly, possibility of gun smuggling and infiltrating of extremist groups to Sri Lankan waters could be expected and need to be handled diligently to avoid possible disasters.

D.   Use of co-operative maritime diplomacy
Maritime stakeholders have the ability to operate more freely overseas, where gives them the opportunity to create interaction with maritime forces in adjacent waters. This would be an ideal opportunity to operate together while enhancing maritime partnership. Individual interest and commitment of maritime security policy makers in the nation towards to domestic and international security will be determined the effectiveness of these activities. India, Pakistan, Bangladesh, Myanmar, Afghanistan, Maldives are the closest countries to Sri Lanka and share maritime environment among each of them. The regionalism is a newly discus topic under 21st century international relation. Regionalism is defined as a political ideology that favours a specific region over a greater area. It usually results due to political separations, religious geography, cultural boundaries, linguistic regions, and managerial divisions (Kiptoo, 2018) South Asian countries have more similarities and share interconnected maritime boundaries. Transnational maritime crimes are more overuse the maritime environment interconnected to the above countries. Therefore, regional countries have a greater responsibility over co-operative maritime security network.

There are many notable occasions of combine exercises, port visits, international maritime conferences and many more co-operative maritime activities, which were conducted along with Sri Lankan maritime stakeholders and foreign nations. The researcher's arguments in this paper is the result of these events and practical applications of the cooperativeness into reality has been rarely witnesses. Therefore, it is worth to understand what has been going wrong in Sri Lankan context. According to the theory of 'Strategy as Practice' strategies made by policy makers must flow into practitioners to follow the decisions made by the hierarchy. The researcher has observed a lacuna in maritime policies in Sri Lankan context, addressing a very important aspect of maritime diplomacy. This lacuna should address in highly strategic level and security policies need to be reoriented to address this aspect of diplomacy. Since, this is a largely neglected field in academic as well as practical context, maritime strategies must newly develop to address co-operative maritime diplomacy.

The developed countries use co-operative maritime diplomacy to build capacity among less developed countries. Even though India and Pakistan are not developed countries, they have comparatively impressive maritime capabilities than Sri Lanka. Coalition actions could be built between maritime security components to enhance regional security to curb maritime crimes. Unfortunately, the India –Pakistan rivalry negatively influence to the regional cooperation as well as combine maritime operations. According to the readings of the researcher, Sri Lanka, India and Pakistan haven't conduct any maritime operation in multilateral nature. This lacuna is the main blunder to counter transnational crime in the IOR. The greatest example is the Australian initiative to counter human smuggling activities. They were clearly found the root courses for this threat and counter strategy was implemented in Sri Lankan soil and succeeded. They have deployed envoys in Sri Lanka and provided intelligence assistance to identify human smuggling networks and culprits. This strategy led to save both their human and physical resources. Similarly, Sri Lanka could apply this strategy to identify potential transnational maritime threats through coalition with adjacent counties in the IOR.

The Sri Lankan maritime environment is vulnerable to drug trafficking, illegal transportation of items and illegal migration. All these activities combine or rather link to each crime. Bilateral or multilateral diplomatic ties, in order to share intelligence and conduct combined operations would be more effective rather than working in isolation. Sri Lankan intelligence units have to visit to the locations where these activities and crimes are originated. We must build a strong intelligence network to enhance interoperability in maritime operation. According to the great Chinese warrior and philosopher 'Sun Tzu's the book of Art of war, clearly signifies the importance of intelligence to warfare and to a kingdom. This teaches the value of intelligence and making any kind of negative situation into a positive situation and to identify particular psychological weaknesses of the opponent. Therefore, it is essential to share intelligence with maritime stakeholders, since there are common enemy/adversary to face. Further, combine maritime patrol and operations could be conducted as a result of sharing intelligence.

In the year 2019 'Galle Dialogue', India be elated of 'Establishing a Maritime Domain Awareness Center' in South Asia. The Sharing of maritime intelligence regarding above discussed crimes is very important. In here especial attention must take to identify possible Gun Running activities in the IOR. Island nature and feature of Sri Lanka, obviously, have to accept any illegal weapon must come via either Air or Sea transportation. There is less probability to Gun Running to conduct through Air transportation due to heavy weight and infiltrate through detection systems in the Airports. However, Sea transportation is the easiest, economical and safest method to the smugglers to transfer weapons, explosive, chemicals, radioactive materials, biological weapons etc. This would be an eye opener for maritime policy makers to build strategies based on threat perception and give the priority for necessary human and technological resources. The co-operative maritime diplomacy would be an ideal tool for less developing countries to bargain with developed countries based on their national security requirements. Because this would be benefited both the parties and national security would be secure.

When the recent catastrophic blasts happen in Sri Lanka, many worlds leaders pledge to support to Sri Lanka to curb transnational crimes. In this moment it is important to analyse the maritime security requirement for the country and

establishes bilateral discussion, especially with neighbour India and propose our operational requirement, in order to identify possible illegal maritime transportations and movement. Co-operative maritime diplomacy is the tool which could really help to both the countries at this juncture. Therefore, it is the responsibility of security hierarchy to discuss these matters and take initiative to act accordingly. Similarly, non-military maritime security components could take the initiative to create person to person contact and discuss their organizational/unit requirements and inculcate them to national security. Institute of National Security Studies in Sri Lanka (INSSL) is the prime think tank platform to research and forward their findings to policy makers to take necessary security measures. Therefore, it is highly essential to give a prominence to the subject area of maritime diplomacy, which Sri Lanka largely neglected.

Sri Lankan intelligence operatives must conduct combined operations with selected countries, where necessary. Sharing of intelligence, insufficient to counter this much of well organizes cross border crimes. National security policy decisions must develop to send our envoys to require countries to discuss and create, combine operation plan to conduct maritime operations. This could be either bi-lateral or multi-lateral and rehearse must conduct with countries on counter smuggling operations pertaining to expected scenario. It is compulsory to conduct such an exercise with Indian maritime stakeholders to develop, operational readiness in this operation, since both countries are sharing closest maritime boundaries. These proposals of co-operative maritime diplomacy have to convince by maritime stakeholders to higher authorities. To achieve persistent co-operative maritime diplomacy, existing maritime strategies alone are no longer sufficient. We must reorient and integrate these legacy systems with current and emerging capabilities, creating synergy within maritime security stakeholders in interstate and intrastate.

The theory of 'strategy as practices', very well signifies the relationship between strategy and practices. This research tried to convince the requirement of clearly understand about co-operative maritime diplomacy by the maritime strategy developers for national security. Until unless the policy makers become understanding with these concepts, it is hard to build maritime strategies relevant to co-operative maritime

diplomacy. The awareness of this particular subject area will be helpful to build interest and appreciate the necessity of this subject area to curb transnational crimes in the country. The researcher argument is based on theory of 'Strategy as Practice' where, practitioners could not proceed any sort of operation in bi-lateral and multilateral dimension, until unless policy makers make strategies under co-operative maritime diplomacy. Therefore, it is the ultimate responsibility of maritime stakeholders to take an immediate approach on the concept of co-operative maritime diplomacy and develop them as policies to build strategies to curb transnational crimes to this island.

Conclusion

The comprehensive understanding of maritime concepts and theories is very important in the field of maritime warfare. The conceptual understanding of these theories is the key success for practical implication in maritime operations. The concept of 'co-operative maritime diplomacy' is the main area of study in this research. Under that, the researcher comprehensively discussed about the application of maritime diplomacy to curb transnational maritime crimes. The political ideology of regionalism in international relations would be an ideal tool to build better understanding between nations to counter border security issues. Further, theory of Strategy as Practice has given a theoretical value to this research. Naval warfare is an art and a deep study of maritime strategies will sharpen the national security of the country. Therefore, this subject area of maritime diplomacy must inculcate essential security policies and make them flow to practitioners in the field of maritime security.

Recommendations

The following recommendations are suggested to be implemented to strengthen co-operative maritime diplomacy in order to curb transnational maritime crimes in Sri Lanka.

a. Incorporate the concept of cooperative maritime diplomacy, under the clauses/regulations in foreign policy.

b. Maritime strategy developers must convince policymakers on the timely requirement of incorporating co-operative maritime diplomacy into Sri Lankan maritime strategies.

c. The Institute of National Security Studies of Sri Lanka needs to conduct comprehensive research in this particular subject area and forward findings to policymakers

d. National Security Council of Sri Lanka is essential to discuss this subject area and decisions must be taken to build co-operation with regional and extra regional countries through bilateral and multilateral agreements.

e. Establish an academic maritime strategy section under Ministry of Defence (MOD) to cooperate policy analysts, and scholars in the field of maritime security and give necessary advices to policy makers to take decisions.

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Abbreviations

Indian Ocean Region – IOR
Ministry of Defnece – MOD
Transnational Orginize Crime – TOC
United Nations Office on Drugs and Crime - UNODC

Author Biography

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ID 696

Safety of Life at Sea: Current Status of Sri Lanka

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Abstract— Asia is rising as the global economic power. Consequently, seaborne activities including flow of maritime trade container port activities, cruise industry as well as the fishery activities are increasing in the Indian Ocean. It hosts the most critical Sea Lanes of Communication (SLOCs) in the globe. Therefore, maintaining of security and safety of the Indian Ocean is a prime concern of littoral states as well as other major maritime users. Considering the location of Sri Lanka in the Indian Ocean and as a signatory to the United Nations Convention on the Law of the Sea (UNCLOS), 1974 Safety of Life at Sea (SOLAS) convention and 1979 Search and Rescue (SAR) convention, the government is obliged to ensure the maritime safety within her SAR region. Therefore, this paper aims to examine the current status of maritime safety in the Sri Lanka Search and Rescue Region. The paper concludes with some practical policy recommendations.

Keywords: Search and Rescue, Maritime Safety, SAR Region

Introduction

Sri Lanka being a littoral state and located strategically in the Indian Ocean perceives a long-held ambition to become a maritime hub in the region. The world busiest East-West main shipping lane is located at just six to ten nautical miles from her southern tip through which approximately 2000 ships ply in a day. Also, the deep draught hub port at Colombo attracts a substantial merchant traffic into the region. The Island also hosts a fishing fleet of more than 5000 ocean going multi day trawlers and nearly 32700 minor vessels operating in coastal waters. With the booming tourism industry, recreational vessels and growing sea borne activities in Sri Lankan waters complicate the situation further. Therefore, maritime transport in and around the country has become a vital concern for Sri Lanka which invariably calls for a sound maritime safety system in place due to the increasing risks at sea caused by greater number, size and faster speed of the vessels engaged in trade.

Sri Lanka is a signatory to UNCLOS, 1974 SOLAS convention and 1979 SAR Convention. In pursuant to the requirements of these conventions, the government of Sri Lanka is responsible to ensure the safety of life at sea within her Search and Rescue (SAR) region. Also, Sri Lanka considers strengthening of safety and sustainability of activities as a prerequisite to guaranteeing the freedom of navigation and overflight, unimpeded commerce and the freedom of digital connectivity in the Indian Ocean.

Assessment of the current status of maritime safety is therefore considered vital in the present context. Though the responsibility of maritime safety lies with the Merchant Shipping Secretariat, there are various organizations including, Sri Lanka Navy(SLN), Sri Lanka Coastal Guard(SLCG), Sri Lanka Air Force(SLAF) and Department of Fishery and Aquatic Resources (DFAR are acting in different capacities to ensure the safety of life at sea around Sri Lanka. This paper aims to uncover policy level issues in the current maritime safety mechanism in the country. The paper concludes with some practical policy recommendations.

Methodology

This study is based on a literature review and survey research. The research was carried out

considering the Sri Lankan Search and Rescue region. As part of implementing the methodology for the study, a survey was launched to identify maritime accident types and assess existing regulations, risk management and, rule and standards compliance in the region.

Especially, the focus of the survey is on many issues across wide spectrum of technical areas such as the design, operation and maintenance of vessels and port infrastructure, definition of and compliance with policies and regulations, law enforcement, recruitment and training of officers and crew, organization and management of rescue services, risk assessment and safety audit.

Maritime safety

Maritime safety is defined as the safety of life, health and property against environmental and operational risks associated with navigation. Because it is a broad concept and its formulation depends on the context and the individual approach, universal definitions of maritime safety can include the following;

freedom from danger

no risk, the level of which cannot be accepted, other lack of harm to human health (freedom from unacceptable risk or personal harm)

no financial losses.

Maritime safety is sometimes defined also as

"such desirable conditions of human activity at sea that do not endanger human life and property and are not harmful to the marine environment". It is composed of four components namely technological and operational ships' safety, safety of navigation, safety of person in distress, and prevention of pollution of environment from ships as shown in Figure 1.
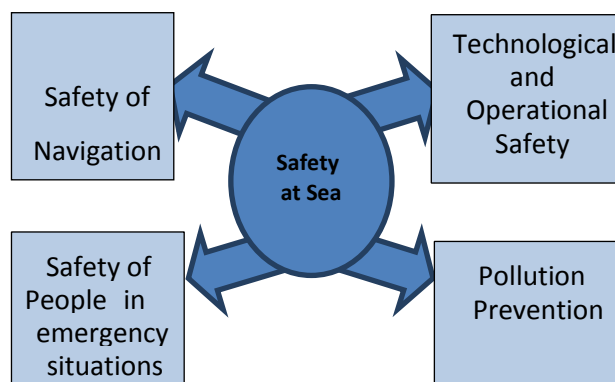
Figure 1. Major components of safety at sea Source: Annual of Navigation No.4/2002

Legal Framework

Given the global character of maritime transport and identifying the need for increased level of safety at sea, a number of international organizations have been formed with the aim to create regulatory framework for maritime transport. The International Maritime Organization is the most important of all the organizations regulating the safety at sea.

International Convention for the Safety of Life at Sea (SOLAS), 1974

The main objective of the SOLAS Convention is to specify minimum standards for the construction, equipment and operation of ships, compatible with their safety. Flag States are responsible for ensuring that ships under their flag comply with its requirements, and a number of certificates are prescribed in the Convention as proof that this has been done. The SOLAS Convention, also contains the general obligation to provide maritime SAR services. State parties to the SOLAS Convention undertake to take all necessary arrangements for coastal surveillance and for the rescue of persons in distress at sea around their coasts. These arrangements must include the establishment, operation and maintenance of such search and rescue facilities as are deemed practicable and necessary, having regard to the density of the seagoing traffic and the navigational dangers.

International Convention on Maritime Search and Rescue (SAR)

The Convention aims at developing an international SAR plan, so that, no matter where an accident occurs, the rescue of persons in distress at sea will be co-ordinated by a SAR organization and, when necessary, by co-operation between neighbouring SAR organizations.

Parties to the Convention are required to ensure that arrangements are made for the provision of adequate SAR services in their coastal waters, to establish preparatory measures which should be taken, including the establishment of rescue co-ordination centres and sub centres. Following the adoption of the 1979 SAR Convention, IMO's Maritime Safety Committee divided the world's oceans into 13 search and rescue areas, in each of which the countries concerned have delimited search and rescue regions for which they are responsible.

C. *Overview of Maritime Safety Legislative Framework in Sri Lanka*

Under the Merchant Shipping Act No.52 of 1971(MSA), the Merchant shipping secretariat is the responsible authority for maritime safety in Sri Lanka. However, considering the available facilities and professionalism, the authority has been delegated to SLN for the conduct of SAR operations in Sri Lanka's SAR region. Maritime Rescue Coordination Centre (MRCC) Colombo is manned at Naval Head Quarters under the Director Naval Operations (DNO) to assist vessels in distress by all possible means. At the process of coordinating maritime disaster incidents, Air Rescue Coordination Centre (ARCC), DFAR, Colombo Radio and adjacent Rescue Coordination Centres (RCC) acting as alerting posts whilst the SLN, SLAF and SLCG perform as major SAR facility providers. SLN and SLCG provide the service of maritime SAR facilities whilst SLAF provide aeronautical SAR facilities.

Overview of Distress Incidents in the Region

Analysis of incidents reported to the MRCC Colombo for the period of 2017 to 2019 revealed the annual average number of vessels involved in distress incidents in Sri

Lanka's surrounding sea areas was 268.This included 85% of Sri Lankan fishing vessels, 10% merchant vessels and rest were foreign fishing vessels, naval vessels and pleasure craft.

Table 1. Types of platforms reported distress incidents

Source: MRCC Colombo Annual report

Types of platform	2017	2018	2019	
Merchant Vessels	14	23	25	
Sri Lankan Fishing Vessels	148	221	229	
Other Vessels	3	31	9	
Total	267	275	263	

Reported incidents were analysed based on the type of distress incident, Nature of Assistance Providedto distressed units and the location of the incident occurred during the period of 2017 to 2019.Results of the analysis show that a vast

majority of the incidents are due to technical failures of the vessels where MRCC Colombo provided assistance to those vessels. Capsizing of vessels and vessels ran aground in 2019 marked alarming inclination of 366.6% and 500% compared to year 2018 and all such incidents were related to the Sri Lankan fishing vessels.With respect to the type of assistance provided, majority of the assistance were provided for medical evacuation.Further, Southern sea of the island was identified as the most disaster prone area. MRCC activities resulted saving of 103 lives in 2019, which is a reduction by 77.9% comparing with 2018. Cost sustained by the SLN for assisting the distressed at sea in 2019 have reduced by Rs. 213,249,482.84 compared to 2018.

Table 2. Type of Distress Incidents

Type of Incident	2017	2018	2019
Drifting due to technical Breakdown	87	121	122
Patients onboard and required medical assistance	31	45	48
Fishing vessels ceased communication or overdue	30	32	31
Alerts Generated by Distress Beacons	-	-	20
Man Over Board	09	02	12
Grounding, Collision and Capsizing	06	18	15
Death of a crew member	01	10	03
Fire on board	01	02	01
Other incidents	-	-	06
Total	**267**	**275**	**263**

Figure 2. Major components of safety at sea Source: MRCC Colombo Annual report

Sources: MRCC Colombo Annual report

Status of Maritime Safety in Sri Lanka SAR Region
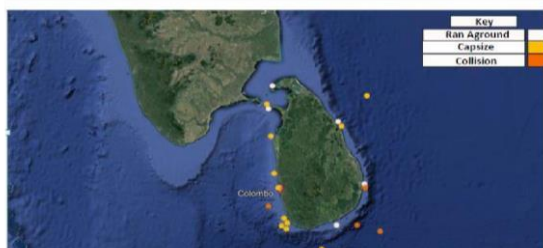
A survey was carried out to asses the current status of the maritime safety in Sri Lanka search and rescue region(SRR). The purpose of the survey was to asses the policies of administrative organization,safety management system and safety management facilities in the country. Following key issues were considered to asses the maritime safety in the country;

National maritime safety policy National maritime safety policy is a statement of principles and objectives to guide decisions in the maritime safety sector with a view to achieve the maritime

vision of a countryand ensuering that the sector is governed in and efficient, sustainable, safe and environmentally sound manner. A sound national safety policy could be a good guideline in setting goals of marinesafety and policy priorities, securing budgets and resource. However, Sri Lnakadoes not have a master plan for maritime safety.

Maritime safety organization

There are two categories of organizations dealing with maritime safety administrations in a country. One is an organization charged in a country's safety administration which is positioned as an independent body apart from the central government, and the other is an organization set up as a department within central government.
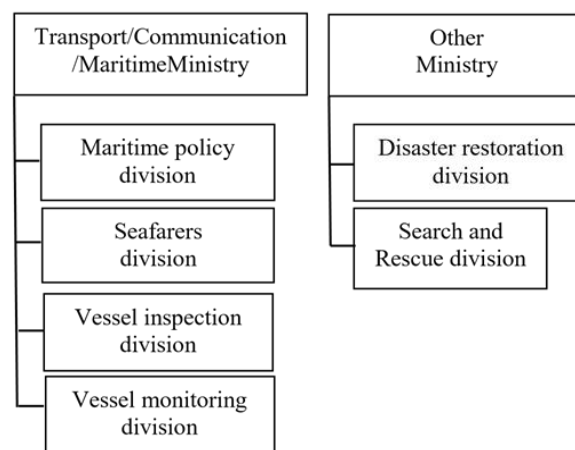
Figure 3. Separated type of maritime administration
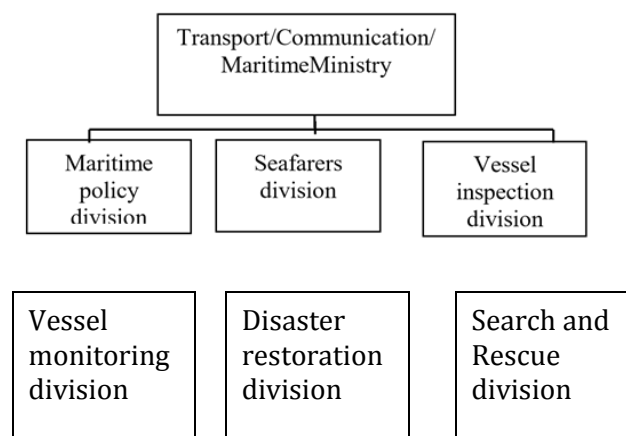
Figure 4. Integrated type of maritime administration

The maritime safety organization in Sri Lanka is a separated type of organization. As the shipping administration arm of the country, the merchant shipping secretariat comes under the ministry of ports and shipping. Presently the national search and rescue authority is Sri Lanka navy operates the MRCC Colombo. Apart from the SLN, Sri Lanka Coast Guard also play a vital role in search and rescue operations while DFAR is responsible for the safety of Sri Lankan fishing vessels. Therefore, the maritime safety organization of Sri Lanka is considered as a widely separated organization under three ministries namely ministry of ports and shipping, ministry of defence and ministry of fisheries and aquatic resources.

Vessel Traffic Service

Vessel Traffic Service (VTS) is very important function for a maritime regulatory body to monitor safe navigation of passenger ships. VTS deals with management of ship traffic on maritime routes, suggesting best routes for a ship and ensuring no two ships run into each other on congested routes. The numbers of VTS sites and VTS officers (VTSO) show current monitoring capability of selected countries. Capability and professionalism of officers working for VTS is important to enhance safety level of maritime transport in the field. Comparing with the number of VTS sites, the average number of officers (VTSO) does not look enough to conduct VTS. Understanding nature and working of vessel traffic system would be of importance to officers.

Safety management systems

The International Safety Management (ISM) Code provides an international standard for the safe management and operation of ships at sea. The Code establishes safety management objectives and requires a safety management system (SMS) to be applied by "the Company", which is defined as the ship-owner or any person, such as the manager or bareboat charterer, who has assumed responsibility for operating the ship. Since the International Convention for the Safety of Life at Sea adopted the ISM code in 1994, the Code has

been applied to oceangoing vessels. Sri Lanka applies the SMS to only domestic cargo ships.

Ship Inspection

Ship inspection is the backbone of maritime safety programme and is instructive for all safety, security and environmental protection activities. To estimate the seaworthiness of passenger ships, relevant authorized national organizations conduct inspection on passenger ships. In Sri Lanka the merchant shipping secretariat and DFAR regional officers conducts the ship inspections on domestic shipping and fishing vessels respectively.

Ships crew

It cannot be overemphasized that quality of a crew is one of the important factors to prevent accidents. International Convention on Standards of Training, Certification and Watch-keeping for Sea fares (STCW) was adopted in 1978 by IMO's Maritime Safety Committee to promote safety of life and property at sea and the protection of the marine environment. It is very important to provide appropriate sufficient training programmes for ship officers. In accordance with the requirements under the STCW convention, the IMO training model requires a 2 day-long basic training course and a 3 day-long advanced training course for passenger ship officers.

Also, since the majority of the accidents are attributed to fishing boats, it is an essential requirement to make the fisher folks/ fishers and boat owners aware of the ways and means and instructions to be followed in distress at sea. The DFAR conducts such training and awareness programs.

Investigation of maritime accidents

According to the Casualty Investigation Code adopted in IMO and entered into force from 2010, it has been recommended to conduct objective marine safety investigations for the benefit of flag States, coastal States, the Organization and the shipping industry in general. However, Sri Lanka

has not ratified the IMO casualty investigation code.

Search and Rescue

Search and Rescue (SAR) organizations play a critical role in the stage of "Response" in the disaster management cycle. Mostly, a coastguard or a navy organization conducts the role of SAR in a country. The number of SAR operation personnel, vessels and aircrafts show the capability of a SAR organization for search and rescue. It means that prompt actions for the search and rescue could be affected depending on the possession of vehicles in a country. Also, availability of aircraft that could be useful for swift rescue activity in case of a disaster is a major concern in the SAR capacity of a country. In Sri Lanka SLN, SLCG and SLAF carry out SAR operations in SRR. However, unavailability of aircraft onboard ships is a major problem in providing carrying out SAR operations in the deep sea.

Conclusion and Reccommendations

The sea around Sri Lanka is one of the busiest in the world due to its dynamic maritime environment which includes world busiest SLOCs, increasing port facilities, booming tourism industry and fishery activities. The safety of life and property at sea is considered vital in its obligation as a signatory to the UNCLOS and in pursuance of Sri Lanka's maritime interests. The purpose of this study is to uncover policy level issues in the current maritime safety mechanism in the country and make practical policy recommendations.

The study was based on data obtained from primary sources, previous surveys carried out by recognized organizations, literature, expert views through individual interviews. Study revealed that a considerable number of maritime accidents and distress incidents are taking place in the Sri Lankan SAR region which includes both loss of life and property at sea. Around 80% of incidents are attributed to fishing vessels and merchant vessels represent the majority of the rest. The conclusion drawn from the study and recommendations are summarized as follows;

A clearly stated national maritime safety policy is vital to guide different agencies and personnel to assuare a safe maritime environment in the country. Threfore it is recommended to draft a national maritime safety policy for the country.

The maritime safety organization of the country is widely separated into different ministries and departments. This can lead to several administrative difficulties, and delay in distress response. Recommended to strengthen the cooperative relationship among different organizations dealing with maritime safety.

Presently Vessel traffic monitoring is done by port control station in Colombo port by using VTMS. However, considering the length of the coastline and extent of SRR it is recommended to increase the VTMS sites in most disaster-prone areas. Further recommended to increase the number of qualified VTMS officers with the training and education system required by the IALA.

Ship inspection is the backbone of maritime safety programme and is instructive for all safety, security and environmental protection activities. To estimate the seaworthiness of domestic ships and fishing vessels, a suitable mechanism could be initiated.

Currently, the International safety management (ISM) code is required to apply to international voyaging ships under the international convention. It is necessary for government to adopt safety management system for costal ships, which could lead to significant human casualty in case of accident, as a priority.

The number of SAR personnel, vessels and aircrafts show a country's capability for search and rescue operation. It is necessary that SAR capacity should be expanded in proportion to the length of the country's coastline. It is also recommended to equip suitable SLN ships with SAR aircrafts.

To maintain a vessel's seaworthiness, vessel inspection must be thoroughly carried out to suppress substandard vessels. When the government assigns vessel inspection to a Recognized Organization (RO), the government needs to monitor and supervise thoroughly to check if the RO has appropriate organization and manpower to provide quality inspections. It is also necessary to continuously monitor navigation of vessels, establish routes of passenger ships, by establishing the VTS or an e-Navigation System. In case of bad weather, departure of passenger ships must be controlled. If a vessel does not comply with the order, strong disciplinary measures need to be taken.

Qualified crew can ensure safe navigation of a vessel and provide effective responses in emergency. Therefore, country need to enhance qualified seafarers training schools and to provide training and education continuously to maintain highly qualified crew members. Besides maintaining qualified crew members, it is necessary to increase and enhance qualification of maritime safety-related government officials (staffs, VTSO and Coastguard officer, etc.) and vessel inspectors and surveyors. Since most of the ocean accidents are caused by human errors, the training and education of seafarers is of the utmost importance.

Maritime safety cannot be achieved by a country in isolation. Therefore, international cooperation needs to be enhanced through regional workshops, seminars and researches.

In order to enhance maritime safety in the country additional financing is needed for shipbuilding,

support for the maritime shipping industry, establishment of seafarer training centres, dredging of waterways, development of aids to navigation, expansion of VTS, and enhancement of SAR facilities. However, Sri Lanka has trouble in making sufficient investment in these areas due to lack of budget. Overseas aids and financing may help to make more investment for enhancement of domestic maritime safety. It is necessary to discuss how to raise funds to make improvements in these areas.

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Hambanthota: Revival of Maritime Silk Route Indo-Pacific Strategy, Power Rivalry in the Region and its Impact on Sri Lanka

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Abstract— There is a significant shift in the United States' focus from Middle East to South Asia and more towards South East Asia, which is now termed as the Indo-Pacific Region along with a considerable change in their foreign policy. The Hambanthota harbor which was built solely with funding by China under its "One Belt One Road" strategy is also considered as a part of ''String of Pearls'' which encircle India strategically from the south also a major security concerns of India, a major allay of United States in the Indo-Pacific Region. Sri Lanka with her geostrategic location attracts higher level of concerns of the regional and global economic powers. With the traditional strategic power rivalry between India and China in the region Sri Lanka has undergone and is still facing many consequences. Whatever the concerns may be, Sri Lanka needs to maintain an equilibrium in foreign policy in order to achieve her development goals without antagonizing major players in the region. Sri Lanka needs to correctly identify the contemporary regional and global strategic environment and needs to maintain a well-balanced foreign policy accommodating India and China as well as the extra regional powers like USA, Japan and Australia. During this endeavour the writer expects to find out the growing socio- politico and geo- strategic concerns of India, China, USA and the other key players in the Indo-Pacific Region and it impact on Sri Lanka.

Keywords- *Indo-Pacific Region, India, China, USA, Sri Lanka*

Introduction

British forces left the region due to heavy economic constrains after dominating nearly200 years and with the escalation of Cold War in the 1970s USA and Soviet Russia replaced them in the region. In post-Cold War USA became only superpower by making the world a unipolar one. China expanded her maritime domain by developing her maritime capabilities in mid 1980s with a clear vision to make her blue water capable power. China also a dependency of Middle East and African region when it comes to the oil and minerals, which are major requirements for her development projects and expanded her naval presence westwards, whilst developing and securing her assets in the South China Sea. The Maritime Silk Route was revived by President Xi Jinping in year 2013 with the aim of expanding and strengthening the cooperative interactions, social, economic and political connectivity with the others over the globe. Sri Lanka having been located in a strategically important location in the East-West sea route unintentionally became a part of Maritime Silk Route (Abeygoonasekera, 2014)[1]. This strategy of Chinese has aroused many security concerns in the region. Influence of Chinese in South China Sea also has become one of the security agenda among the key players in the region.As Peng Er Lam describes "India considers Hambanthota Harbor which was funded by Chinese which encircles the India from the South also a major security concern of India and her allies"(Peng Er Lam,2015).[2]

Also considers by the USA that, the rising Chinese maritime power is also posing a threat to mighty American sea power along the sea routes those connect China to her energy resources also a major concern of the day. The most important fact in this regard is that whether Sri Lanka to be

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[1] Asanga Abeygoonasekera, "The Best Stop-over in Maritime Silk Road | Ministry of Foreign Affairs - Sinhalese," 2014.

[2] Peng Er Lam, "Sri Lanka and China's Maritime Silk Road: A Convergence of Interests." *East Asian Policy* 07, no. 03 (July 1, 2015): 114–23.

victimize on this issue by handling two emerging powers in the region who are also claimed to be good friends of the country. Hence leadership of the country should handle these complexities carefully to achieve development goals. As Robert Kaplan says, "The Indian ocean and the future of American power, Indian ocean is the ocean in the 21st century" (Kaplan 2010)[3].

By virtue of being located in a most strategically important place in the Region, also falls in India's sphere of influence and as many thinks forms a part of String of Pearls strategy in Maritime Silk Route, Sri Lanka would attract many positive and negative impacts on her.

Research Objectives

This study aims to find out the historical background of China, India, USA and their major concerns in the Indo-Pacific Region and also being a littoral state located in a strategically important place in the region, how and what measures Sri Lanka should carry out in order to minimize the tensions among the big players whilst maintaining its neutrality thus reducing the harsh impacts on her. The study has the following sub objectives;

- To identify and provide comprehensive review on the cooperation among China, India, USA and Sri Lanka in the Indo-Pacific Region.

- To identify the main causes as to why the key players like India and USA consider Sri Lanka as a part of Chinese "String of pearls", in the Maritime Silk Route domain.

- To critically analyze the importance of the location of the Sri Lanka in Indo-Pacific and her role to ease the tension among big players in the region by maintaining neutrality in order to reduce the harsh impacts on her.

Hambanthota Harbour and its Background in Maritime Domain

There is much historical evidence to confirm the existence of a harbor for Second Century AD and had been a most important one in the region. Even during the colonial era of Portuguese, they carried out settlements in the area by knowing the importance of the port. After that Dutch and the British's too have had their influence over the area and has functioned the harbor. Hence it is clearly evident that for nearly past five centuries the name Hambanthota has been in existence. In1994, excavations were done in Godavaya by Sri Lankan and Germen archeologists to unearth the laden history of this valuable port and confirmed that there had been a port much earlier(Kessler,1998).[4] Team has found inscriptions in an around Godavaya Temple proving that this was a major sea port in the region. Much Chinese and Persian pottery has also discovered form the place. Even in many historical literatures Sri Lanka is regarded as a major sea trade Centre on the old Chinese Maritime Silk Route.

Indrakeetrhi Siriweera on his literature, *Mathota: The Great Port of Ancient Sri Lanka* published in the *Island* on 10 May 2013 explains that "due to the geo – strategically position of Sri Lanka in the Indian Ocean, this tiny island has become a center for Transshipments even during the ancient days. There he has further said that Sri Lankan ports around the island has played key role in maritime trade" (Siriweera,2013)[5].It is the first in – built harbor carved out form the land. And this could provide all the services to the vessels passing through this channel. And also, naturally the Hambanthota port is located in area where the depth of the sea is facilitating most of the events pertaining to the shipping industry. Its location gives a clear dominance over the India and most of the Indian transshipment handling could be done here. Further with the pace of globalization many eyes were on these lanes of Indian Ocean mainly to transport their trade and energy sources through this.

According to the feasible study carried out and master plan, the area selected could be expanding without any major obstruction for the other related industries. With the further development ship building and ship repair facilities, bunkering facilities, an oil refinery and a free trade zone were also in the cards. Hambanthota does provide a convenient mid-way point on the sea-routes between China, and the Middle East and Africa.

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[3] "Australian Journal of Maritime & Ocean Affairs," ResearchGate, 2010.

[4] Oliver Kessler, "Godavaya - WikiVisually" 1998, Accessed December 31, 2019.

[5] W I Siriweera, "MATOTA: The Great Port of Ancient Sri Lanka," 2013.

However, with President Mahinda Rajapakse's visit to China in early 2007 and sign of agreement on "friendship city relationship" Hambanthota becomes a much vociferous among the other key players in the region.

With her pivot to Asia strategy earlier in 2011 and Indo-Pacific Strategy now USA is also playing a crucial role in Sri Lankan geopolitics.

The Interest of China in the Region

China started to expand her arms towards the West which is known as westward move which made considerable consequences to the USA making changes to her security perspectives indicating new geopolitical shifts. With her neighbors around, as indicated by John Wong, "China is doing this through its soft power with the motto of peaceful rise. China is a major country in the Asian region and with the opening of her economy it has acquired considerable gains especially in economy and industry".[6](Wong, 2014)

As explained by the Ni Lexiong that "there is a connectivity between China's blue water strategy and the opening of economy in the context of post Mao reforms initiated under the chairmanship of Deng Xioping. According to the Cheng Ruisheng China's intends to maintain a cordial and peaceful environment with south Asian countries in the 21st century. China also has a common interest of developing trade and economic cooperation in the region.[7](Cheng,2008). As describes in the literature of Christopher J Pehrson on String of Pearls, according to the strategic analysis US Department of Defense Annul report to the congress "The dependence on overseas resources and energy supplies, especially oil and natural gas, is playing a role in shaping China's strategy and policy. Such concerns factors heavily in Beijing's relation with Angola, Central Asia, Indonesia, the Middle East (including Iran) , Russia , Sudan and Venezuela – to purse long term supply agreements – as well as its relations with

countries that sit astride key geostrategic chokepoints – to secure passage. Beijing's believes that it requires such special relationship in order to assure its energy strategy and force planning in the future. Indicators of such a shift would include increased investment in a blue – water capable fleet and, potentially a more activist military presence abroad. As he further explains "China's growing influence and interest from South China Sea through the Indian Ocean and onto the Arabian Gulf has been describes as "string of pearls" a part of China's grand strategy.[8](Pherson,2006)

According to the statement given by a retired PLAN (Peoples liberation Army – (Navy) Rear Admiral, Yin Zhao "The Chinese navy is tasked with two principal mission: preserving China's maritime security (including its territorial seas and EEZ): and protecting China's expending and island maritime interests, especially those in the IOR and West Africa" [9](Philip,2011). This statement is supporting the China's implementation of "Far Sea Defense Strategy." As Christopher J. Pehrson further describes "China's development from its expanding economy and increased global influence to its growing military might and demand for energy, presents tremendous challenges to China's leaders as they manage the turmoil of massive structural, technological and social changes. China has three major concerns: regime survival, territorial integrity, and domestic stability". [10]

China is also a giant neighbor to the South Asian region. Hence definitely China will play all her cards to strengthen relationship with the aim of achieving her goals in the Region. The major tools that China utilize for this purpose are the economic assistance those needy countries in the region. The flow of Chinese money to economically deprived countries especially in South Asia and Africa will definitely be a greater relief for them.

As Christopher J Pherson describes in his article on String of Pearls, according to the report submitted by US-China commission in year 2005

[6] John Wong, "Reviving the Ancient Silk Road: China's New Economic Diplomacy." Text. The Straits Times, July 9, 2014.

[7] Cheng Ruisheng "Trend of India's Diplomatic Strategy." *China International Studies* 10 (2008):20.

[8] Christopher, "String of Pearls: Meeting the Challenge of China's Rising Power across the Asian Littoral:" Fort Belvoir, VA: Defense Technical Information Center, July 1, 2006.

[9] Phillip C. Saunders et al., "The Chinese Navy: Expanding Capabilities, Evolving Roles:" Fort Belvoir, VA: Defense Technical Information Center, January 1, 2011.

[10] Christopher, "String of Pearls: Meeting the Challenge of China's Rising Power across the Asian Littoral:" Fort Belvoir, VA: Defense Technical Information Center, July 1, 2006.

"Globally, China is increasingly active in striving for energy security in ways that portend direct competition for energy resources with the United States. This is producing a possibility of a conflict between the two nations".

As Bernard D Cole (2013) describes, "ocean provides the most important medium for both peacetime and wartime activities, from trade to national conflict also," the maritime strategies of the Asian powers are designed primarily to defend their homelands and associated vital national security interests on the ocean and seas". By analyzing this statement carefully, it has given a clear distinct to the thoughts of Alfred Thayer Mahan.[11](Cole,2013)

As time goes China implemented the strategy of reviving the silk route phenomenon with the formulation of her grand strategy in 21st century. As Rajiv Chathruevedi explains China's main strategy focuses on followings: [12](Chathurvedi, 2014)

- Acquire" comprehensive national power essential to achieving the status of a "global great power that is second to none".

- Gain access to global natural resources, raw materials, and overseas markets to sustain China's economic expansion.

- Pursue the three Ms: military buildup (including a naval presence along vital sea lanes of communications and maritime choke points), multilaterals, and multi polarity.

- Build a worldwide network of friends and allies through "soft power "diplomacy, trade and economics dependencies via free trade agreements, mutual security pacts, intelligence cooperation, and arms sales.

As foreign ministry spokesperson, Hua Chunying describes "with a view to realize the common development of China, European and Asian countries, we have put forward and promoted the initiatives of the Silk Road Economic Belt and the 21st Century Maritime Silk Road. So far over 50 countries along the Belt and Road have responded and joined the initiative.In these two major international events, we have advocate common, comprehensive, cooperative and sustainable security in Asia, and called for efforts to shape the future through Asia-Pacific partnership. All these efforts have enabled China to make indelible contribution to the historical process of maintaining peace and security and advancing cooperation and development in the Asia-Pacific region"[13](Chunying,2014). China is also a major investor in the many littoral countries in the Indo-Pacific Region and also in most of the African countries. As Rupert Herbert Burns (2012) explains" petroleum exists in abundance in the IOR. Crude oil and natural gas remain unquestionably the most important raw material exports from the region. In short, the global economy would not function without them. When viewed in an aggregated sense, the total oil and gas reserves held by IOR states as a percentage of the entire worlds proven reserves are impressive. Chinese Navy or the PLAN'S main strategy has two significant elements first, preserving China's maritime security including its territorial seas and EEZs. second, protecting China 's expanding and distant maritime economic interests in Indian Ocean Region and West Africa. This China's phenomenon called ''Far Seas Defense Strategy'' has increased the concern of India and USA.

This has been clearly indicated in the first ever Chinese Defence White Paper published in 2015 stating that, "In the new circumstances the national security issues facing China encompass far more subjects, extend over a greater range, and cover a longer time span than any time in the country's history. Internally and externally, the factors at play are more complex than ever before".

20 Cole, Bernard D. *Asian Maritime Strategies: Navigating Troubled Waters*. Annapolis, Maryland: Naval Institute Press, 2013.

12 Chaturvedi, Kattumuri, and Ravindranath, "Mainstreaming Adaptation to Climate Change in Indian Policy Planning."

International Journal of Applied Economics and Econometrics 22, no. 1 (2014): 23–56.

13 Hua Chunying, "Foreign Ministry Spokesperson Hua Chunying's Regular Press Conference on December 31, 2014,"

China also considers Indo-Pacific region also falls within her rightful sphere of influence and started to militarize and develops island chains in the South China Sea in order to counter expansion of USA in the region. With the aim of China becoming a maritime power, conforming the Xi Jinping's "China Dream" and gaining considerable superiority in the South China Sea, expanded her involvements in the region.

During the keynote speech by Chinese President Xi Jinping at the Second Belt and Road Forum for International Cooperation 2019, Beijing on 26 April 2019 stated that" Connectivity is vital to advancing Belt and Road cooperation. We need to promote a global partnership of connectivity to achieve common development and prosperity. I am confident that as we work closely together, we will transcend geographical distance and embark on a path of win -win cooperation".

By analyzing above, it is very clear that China's main aim is to connect with the global partners peacefully through OBOR initiative. He further elaborated stating that" It will promote high quality economic development, meet the people's desire for a better life, and contribute to world peace stability and development"[14](Xi, 2019).

The Interest of India in the Region

Virtually being the big power among Indian Ocean littorals, India is playing a major role in the region in order to secure her interests. Her navy is playing many activities like humanitarian, relief operations and counter piracy operations in the region.

According to the India's strategic perspectives her major concerns are to expand its naval presence and extending maritime diplomacy. India also has started developing bases in the places of her interest in the IOR.

According to the Donald Berlin, India's concerns in regard to the IOR is clearly describes in the following; "New Delhi regards the Indian Ocean as its back yard and deems ...... that India function as, eventually, the predominant influence in this region.... In the expansive view of many Indian's,

India's security perimeter should extend form the Strait of Malacca to the Strait of Hormuz and from the coast of Africa to the western shores of Australia"[15](Donald,2006).

With a background of many external and internal skirmishes, proxy wars and due to certain interest in security perspectives India has manifested her National Security Strategy as follows: [16](Philip.2016)

- Defending the country's borders as defined by law and enshrined in the constitution.

- Protecting the lives and property of its citizens against war, terrorism, nuclear threat and militant activities.

- Protecting the country from instability and religious and other forms of radicalism and extremism emanating from neighboring states.
- Promoting further cooperation and understanding with neighboring countries and implementing mutually agreed confidence building measures.

However, with regards to the India's tilting towards East: 'Look East Policy' was initiated by then Prime Minister P V Narasimha Rao in 1992 with an aim to connect economy to India's trading partners of either side of Strait of Malacca. In 2016 Prime Minister Narendra Modi named it as "Act East Policy" in order to invest in the region. In the meantime, India also promoting its culture, arts and religion as part of its broader interests and also involve in patrolling, military exercises, port calls, anti-piracy missions and humanitarian missions to show her worthiness in the region. Whilst maintaining a cordial atmosphere with her neighbors India too think that China as her one of traditional rivals thus stretching her arms in the IOR in order to secure the interests. India too thinks that strategy of China's String of Pearls is mainly to contain her from southern. As Donald Berlin, professor at the Asia Pacific Center for Security Studies in Honolulu explained about the Indian interest in the IOR; "New Delhi regards the Indian Ocean as its back yard and deems that India functions as, eventually, the predominant

[14] Xi Jinping, 2019. "Xi Jinping Attends the Opening Ceremony of the Second Belt and Road Forum for International Cooperation (BRF) and Delivers a Keynote Speech,".
[15] Donald Berlin 'India in the Indian Ocean" 2006.

[16] Philip Campose, "India's National Security Strategy: Imperative of Integrating Defence Policy," 2016, 18.

influence in this region. In the expansive view of many Indians, India's security perimeter should extent from the strait of Malacca to the strait of Hormuz and from the coast of Africa to the Western shores of Australia"[17](Herbert,2012).

This clearly indicates the intentions of India in the region. In the meantime, post war development scenario in Sri Lanka raised many concerns of India.

As Lee Cordner states "Sri Lanka's signing of many bi-lateral agreements with China on strategic issues, docking of Chinese submarines in Colombo too fueled the tensions among Indians. Though China claims that it seeks only acquiring energy supplies, India sees this act of China in IOR is a part of strategic encirclement"[18](Lee,2010).

With this background India aims to counter the rise of Chinese influence in the IOR. Therefore, India will continue to build its relationship with neighboring countries in order to perceive her security agendas. The recent visit of India's premier Narenda Modi to most of the island nations of IOR is a clear evidence to show the world about India's concerns on the region.

Indian strategic views have always been manipulated or arranged with its long-lasting history, culture and geopolitical aspirations. India is a country which holds a land frontier of 15000Km and 7500 Kms of coastline. Its unique location at the base of Asian continent dominates most of the littoral states of the Indian Ocean. Also, India is speedily becoming the economical giant in the region and aims to be the regional superpower by 2050. Hence, virtually being the largest country in the region India has all the rights to dominate the Indian Ocean Region.

By analyzing India's grand strategy, it has three major components: Firstly, which encompasses the immediate neighborhood. India has sought primacy and veto over the actions of outside powers.

Secondly, what encompasses the so-called extended neighborhood stretching across Asia

and the Indian Ocean littorals? India has sought to balance the influence of other powers and prevent them from undercutting its interests. Thirdly, which includes the entire global stage India has tried to take its place as one of the great powers, a key player in international peace and security.

As elaborated by Dr Rahul Roy Chaudry, at the 5th Berlin Conference on Asian Security from 30th September to 01st October 2010 "as India's strategic focus expands beyond its immediate South Asian neighborhood to encompass the Indian Ocean region, the Indian Navy is eminently suited to support the country's foreign policy objectives in the area. Its priorities could include countering the expansion of Chinese naval influence in the region as well as combating piracy off the Horn of Africa and the Gulf of Aden"[19]. By evaluating the growing dependence on the sea by India and also the security environment mainly the maritime security environment it is identical that following perspectives are included in the primary missions of the Indian navy;

- The security and stability of SLOCs in the Indian Ocean (especially the security of energy supplies from West Asia to India).

- The effective conduct of the surveillance of the extended maritime zones and to ensure the safety and security of India's maritime assets.

- To promote maritime and naval cooperation in the Indian Ocean.

- To deter the use of nuclear weapons.

However, by analyzing the India's interests in the region, she has very clearly expressed her desire of spreading her assets more towards East especially. The Malacca Strait which connects the Indian and South China has become the primary strategic interest. Also, India has become the more attractive partner of USA in the region, which has many interests in the region mainly to contain the rise of China. In order to counterbalance Chinese influence in the region, US started to support the development of Indian blue water naval capability

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[17] Herbert-Burns, "Petroleum Geopolitics: A Framework of Analysis." 2012, 281.

[18] Lee Cordner, "Maritime Security in the Indian Ocean Region: Compelling and Convergent Agendas." *Australian Journal of Maritime & Ocean Affairs* 2 (January 1, 2010): 16–27.

thus making her much suited partner to counter-balance Chinese hegemony in the region.

Interests of the United States of America in the IOR

After the end of cold war in late 80s and with the rise of China as economical giant competing USA and escalation of terrorism in the Middle East and the Asian region USA shifted her attention from Pacific and Atlantic Oceans to the Indian Ocean. The rapid incline of exporting energy sources from Middle East to Asia has raised the alarms in order to secure her interest in the region. According to the Rupert – Herbert Burns in his article on Naval Power in the Indian Ocean: Evolving Roles, Missions and Capabilities to the book "Indian Ocean Rising", argues the presence of US navy in the region has following key reasons; ensure the freedom of navigation for crude exports, conducting military operations in the Persian Gulf during wars, Monitoring and deterring Iranian threat and undertaking maritime security operations in the region.

Rupert Herbert Burns (2012) further clarifies that spectrum of naval presence of USA mainly depend on due to complicating strategic and operational level factors as describe below ;(Herbert,2012) [20]

• The Naval expansion and deployment programs of India and China.

• The persistent challenge presented by Iranian activities.

• Long term base security in Bahrain.

• The potential for the deepening intersection between AL – Shabab in Somalia and AQ- AP in Yemen.

• The possibility for full scale civil war in Yeman challenges.

• The decline of naval forces deployment by extra regional and regional a result of government spending cuts.

• The continued weakness of regional maritime forces.

After the President Barack Obama's Pivot to Asia initiative, this turns US assets to the Indo-Pacific region increasing her economic, military and diplomatic efforts in the region with a aim of retaining supremacy in the region without making further loses in the Middle East. When it comes to the guarantee of resource supply through the region, US has given become sole guarantor with few allies like India, Japan and Australia.

The extra regional naval force like USA maintains a considerable presence in the region in order to secure her security perspectives as discussed above. To accomplish this, it is important to form an ally with the India is a need of the hour. Also, the presence of her sole competitor: China in the region in considerable magnitude too invited USA to increase her presence in the region.

However, being a maritime power USA will not abandon her security providing activities since USA is the main security provider to her major allies like Japan and Korea those mainly depending on mineral resources from Gulf and African region which voyage through IOR.

The message from the Secretary of Defense to the Department of Defense Indo-Pacific Strategy Report June 2019 has clearly expressed about the interest of USA in the region stating that "The Indo-Pacific is the Department of Defense's priority theatre. The United State is a Pacific nation; we are linked to our Indo-Pacific neighbours through unbreakable bonds of shared history, culture, commerce, and values. We have an enduring commitment to uphold a free and open Indo-Pacific in which all nations, large and small are secure in their sovereignty and able to pursue economic growth consistent with accepted international rules, norms, and principles of fair competition" (Patrick,2019),

As announced by the President Donald Trump in 2017 during the APEC Summit in Vietnam, the principles for a free and open Indo-Pacific as mentioned below,

• Respect for sovereignty and independence of all nations.

• Peaceful resolution of disputes.

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[20] Herbert-Burns, "Petroleum Geopolitics: A Framework of Analysis."

• Free, fair and reciprocal trade based on open investment, transparent agreements, and connectivity.

• Adherence to international rules and norms, including those of freedom of navigation and over flight

As mentioned by then Secretary of Defense James N. Mattis, during the speech at Shangri- La Dialogue in June 2018 "The US offers strategic partnership, not strategic dependence. Alongside our allies and partners, America remains committed to maintaining the region's security, its stability, and its economic prosperity" (James,2018).

By analysing the recent activities of USA in the region, she has taken whatever the feasible stances to contain the rise of China. The ongoing trade war with China, proposed Trans-Pacific Partnership Strategy with the neighbors of China and also the attempts to influence North Korea from Chinese ally to a neutral nation state are also recent developments in the geopolitical arena in the region. Strengthening military ties with leading nations like India, securing bases and strategic ports through agreements also forms parts of this strategy. Further IOR was placed under the US Indo-Pacific Command in order to counter China in the region.

In 2016, India and US signed a military logistic agreement, enabling both the parties to use of land, air and naval bases with a motive of countering China. Though USA is rushing to establish more deals like SOFA, China to increases her presence in the region in order to provide security to her workers involve in multibillion-dollar investment projects spread across the region under the Belt and Road Initiative. China has secured her interests by establishing a military base in Dijibouti. The ports constructed by China in Sri Lanka, Myanmar and Pakistan for commercial aspects are also under the criticism.

Sri Lanka's Role in the Indo-Pacific Maritime Domain

Being located in the strategic position in the most vital SLOC which connects, East – West voyage of trade and oil transportation has to play a key role in order to ease the tension among big rivalries in the region and also has been a key player in the

maritime cooperation and marine protection activities in the region.

After the three decades of bloody conflict Sri Lanka started to develop the country with the aids flowing from her foreign friends, mainly the China. Hambantota Harbor and Colombo South Terminal are the few to name among those projects. Sri Lanka enjoys many benefits out of Chinese investments in the country.
As Ajith Nivad Cabral the former Governor of the Central Bank stressed out not only the Sri Lanka, the countries those linked to this 21st century MSR are also expected benefits like;

• Strengthened economic cooperation.
• Increased security cooperation.
• Enhanced technical and scientific cooperation.
• Strengthened maritime economic activities

Geopolitically Sri Lanka does not cause any threat to any state or rather to a country in the region and Geo-economically also Sri Lanka is a dependent country on monetary agencies and rich states. Hence, her posing any kind of a threat is out of the subject. However, using her strategically important location in the IOR may arouse concerns of the interested parties. Also, the Sri Lanka is geopolitically located in the Indian spheres of influence, India consider it as a part of her security strategy. Hence Sri Lanka has to maintain cordial relationship with India by getting all the benefit to develop the country without jeopardizing the Indian security concerns.

However, with the revival of 21st century maritime silk route by Chinese President Xi Jinpiang and with Chinas strategically westward movement through IOR involving Indian Ocean littorals like Sri Lanka has opened the eyes of its giant neighbour. Sri Lanka has become the most important country of IOR which carries the Dragon to promote China's objectives.

However, a small littoral country like Sri Lanka should be aware when forming coalitions. Hence Sri Lanka needs to maintain cordial relationship with close neighbour India whilst maintaining the same rapport with China who is the main investor of the country in present day context.

With the adoption of Indo-Pacific Strategy by USA and its allies to contain the rise and westwards

movement of China, geostrategic location of Sri Lanka became vulnerable to many regional and extra regional players. Some military analysts have described the country as a potential permanent aircraft carrier. In order to counter China, USA is in the process of making alliances and signing agreements in the region. The latest developments in signing of Agreements like Acquisition and Cross Servicing Agreement (ACSA), Status of Forces Agreement (SOFA) and Millennium Challenge Cooperation (MCC) are the clear evidence to show their interests. Hence Sri Lanka needs to be more vigilant without been penalized by making alliances and should committed to be a nonaligned nation stay away from the big power politics only concerning to achieving of her desired goals to become a develop country. Balance manipulation of foreign policy is the key of the hour. That does not mean the giving of Hambanthota to China, Trincomalee to USA, and some others to Japan and India. Sri Lanka needs to maintain the strategy of "Friends of All, Enemy of None".

Conceptualization

By analysing the research hypothesis writer identified the 'Balancing Role' as the dependent variable and 'cooperative approach' as the independent variable. Further writer was able to identify the indicators such as; Geo-strategic location, Enemies of none- friends of all, infrastructure support, government policy and supporting industries. Further based on the answers submitted for the questioner above stated variables were measured. Then the evaluation of hypothesis was carried out. During the research those indicators identified under independent variable are considered for evaluation.

Conclusions and Recommendations

In the overall summary of the research it can be recognized that the main problem statement of the research referred to as what are the main defense concerns of India on the Maritime silk route and its effect to country of SRI LANKA has been mainly addressed. It was mainly concluded that there are four key factors that are related to the Indian Ocean defense strategy and their impact on the Sri Lankan political stance.

Hence in the general summary, when taking a recap on the generic outlook of the topic it is noted

that sea lanes in the Indo-Pacific Region are considered among the most strategically important in the world. According to the Journal of the Indian Ocean Region, more than 80 percent of the world's seaborne trade in oil transits through the Indian Ocean choke points, with 40 percent passing through the Strait of Hormuz, 35 percent through the Strait of Malacca and 8 percent through the Bab el Mandeb Strait. In addition to being strategically located and being the main route for sea trade, the Indian Ocean Region is also crucial for energy security, a resource that is abundant in the region.

Therefore, all developing societies need access to the new material produced around the Indian Ocean littoral. And according to Kim Beazley, Australia's ambassador to the United States, "In the long-term the Indian Ocean is going to be massively more significant in global politics than it has ever been before." This illustrates the role the Indian Ocean currently plays and is set to play in global politics. India's Indian Ocean Strategy the IOR is becoming increasingly significant in the world arena. Particularly in India, many strategists are concerned about the imaginary Chinese 'string of pearls strategy'.

India imports about 70 percent of its oil through the Indian Ocean Region to its various ports. As a consequence, it has been enhancing its strategic influence through the use of soft power, by becoming a major foreign investor in regional mining, oil, gas, and infrastructure projects. In addition, India has aggressively expanded its naval presence specifically in the Indian Ocean littoral such as in the Seychelles, Madagascar and Mauritius.

In late 2009, it successfully appointed the Maldives as part of its southern naval command, thereby securing its security interest in the greater IOR as well as its immediate interests in the region. India's unique geographic location forms the cornerstone of India's aspiration to dominate the Indian Ocean or even to transform the Indian Ocean into India's Ocean. Many Indian strategists view the Indian Ocean as India's 'rightful domain' and contend that 'India will have to play a very large role in the region if the prospects for peace and cooperation are to grow'.

It is due to this unique geographic positioning and the aspiration to be the dominant power in the region that Indian politicians and strategists pay

great attention to the linkages between the Indian Ocean and India's national security. India's first Prime Minister Jawaharlal Nehru argued that India's independence and survival depended on India's control of the Indian Ocean. India's Maritime Military Strategy (2007) highlighted that 'whatever happens in the IOR can affect our national security and is of interest to us'.

In addition to the soft power politics played by India, it has also heavily invested in military and mainly naval capabilities in and around the region. India often accuses China of engaging in a String of Pearls strategy to surround her. But where China has led, India has certainly been following. Judging by India's naval build-up, though, the truth could actually be quite the opposite. Further, Chinese analysts have also commented on the IOR strategy of India. The launch of India's first indigenous aircraft carrier Vikrant has been viewed by them as reflecting India's "ambition to dominate the Indo-Pacific Ocean" a heralding a greater Indian presence in the Pacific. This illustrates the need for India to be the principal figure in Indo-Pacific Ocean politics, taking charge of the region's dynamics.

In the development of the remedial actions to create a successful synergy between the country of SRI LANKA and the stakeholders of Indo-Pacific should be through the following political and economic correlations.

1. Enter into mutual agreements of understanding and cohesion to strategically align Mari time policies top the upcoming future.

2. Develop regional summits to create a hybrid defense strategy.

3. Exchange forces-based assets and knowledge in between the countries.

4. Develop economic and defense planning to meet forecasted future defense stances.

Accordingly, through a successful development of strategically and politically significant defense mechanism and remediation's between the countries it will be easier for the government of Sri Lanka to buffer the potential threats and negative impacts of the defense based threats and isolation especially in the region and India.

In the meantime, with the China's innovative development and her interests in the region it will create window of opportunity to for the developing nations like Sri Lanka to obtain many Foreign Direct Investments. With the advantage of being a country located close proximity to international sea trade route should grasp this to make the country to be an ideal destination for Chinese investments to reallocate. With the China's regional focus on 13th five-year plan which is a part of One Belt One Road initiative and also Sri Lanka being a strategic partner in the Maritime Silk Route has all the avenues to be the Asian hub in the Indo- Pacific Ocean Region.

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Prospects of Improving Civil-Military Integration to Address Maritime Drug Trafficking in Sri Lanka

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Abstract— Centrality of its location in east west sea lanes has placed Sri Lanka in both advantageous and disadvantageous positions in the context of national security. Though Sri Lanka does not have an immediate threat for her national security in the form of a traditional way, expansions in non-traditional security issues cannot be ruled out easily. Drug trafficking has become one of the serious non-traditional security threats and the existence of the issue is so complex that military alone cannot address it effectively. Therefore, the researcher examined and explored the problem of identifying lapses in civil-military integration in countering drug trafficking and has brought out certain recommendations to enhance such integration. Since this issue mostly affects the Sri Lankan society, the survey method has been used and experts in both military and civil sector in maritime security as well as drugs and narcotics fields have been interviewed to gather primary data. The qualitative approach facilitated the researcher to better analyse their opinions and subsequently test and compare their validity with available literature such as drug apprehension reports, journals and articles. It was revealed that the level of integration between civil and military is at a very lower level in this context. Thus, understanding the gaps between civil and military and their abilities at having effective counter drug mechanisms would benefit society as it is able to have a peaceful, uncorrupted and secure environment. Certainly, this healthy integration would not only be applicable for a drug trafficking scenario, but also to have better counter actions for other non-traditional security issues as well.

Keywords- *Attitudinal Changes, Civil-Military Cooperation, Maritime Domain Awareness, Non-traditional Security Threats*

Introduction

Ensuring 'maritime security' of a country not only allows a stable and peaceful socio-political background in a country, but also a better foundation for the maritime industries to foster sustained productivity. Even though Sri Lanka does not have an immediate threat for its sovereignty and territorial integrity by means of maritime terrorism, it is of utmost importance that we understand the non-traditional security threats which may emerge as transnational crimes due to the strategic location of Sri Lanka in the Indian Ocean. Due to the centrality of its location, Sri Lanka continues to be utilized as a transit point for drug trafficking through the East-west Sea lanes (Senaratne, 2015). Certainly, 'Maritime drug trafficking' stands among top positions in the list of non-traditional security threats and recent drug apprehension incidents indicate how serious this issue is.

Undoubtedly, these illegal and immoral activities related to drugs and narcotics cause numerous social, cultural, political, financial and security issues in the country. Along with the trade of illicit drugs, other illegal activities such as money laundering, terrorism, human smuggling become widespread not only within a single country, but in the region. United Nations Office on Drugs and Crime (UNODC) terms this route as the 'Southern Route' and it involves the movement of drugs by sea across the Indian Ocean from the Makran Coast to East Africa and the key attraction of the southern route for drug trafficking is the lack of enforcement capacity on the high seas (Cole, 2014).

On the other hand, being a littoral State, the involvement of local fishermen in maritime drug trafficking cannot be easily ruled out. Proper security measures in the entry and exit points to the country are vitally important in controlling maritime drug trafficking issue. According to the

annual report published by the Fishery Department, Sri Lanka consists of a fishing fleet having more than 50000 boats. It includes more than 4000 multi day fishing trawlers capable of operating from 22 fishery harbours around the country. In addition, there are approximately 70 identified fishing vessel landing sites around Sri Lanka. When comparing the strength of the Sri Lanka Navy fleet with the number of fishing fleet and their entry/exit points, it is noteworthy to understand that military alone cannot address the issue effectively. In order to have an effective, efficient and reliable solution for the issue, the cooperation and coordination between military, public and law enforcement entities in the country are of vital importance. The concept of 'Civil-Military integration' is comprehensively being used by many countries to address their numerous challenges. Even though it is being widely used in situations such as disaster management and nation building in Sri Lanka, such integration is observed to be very low in the context of controlling maritime drug trafficking in the country.

Drug Trafficking Scenario in Sri Lanka

Continuous drug apprehension incidents in littorals of Sri Lanka during past few years indicate that Sri Lanka can no longer considered be as a soft transit point for drugs. As per the year annual report of the International Narcotics Control Board (INCB), Cannabis and Heroin are listed as major drugs, transiting through Sri Lanka via east-west sea lanes (International Narcotics Control Board, 2016). The Sri Lankan Government with the association of other entities has taken numerous measures to control the drug trafficking in Sri Lanka in various capacities. For example, Sri Lanka Police Narcotics Bureau (PNB) was introduced in order to strengthen the law enforcement process thus expecting to curtail the spread of illicit drugs in the country (Senaratne, 2015). Further, the Sri Lanka Coast Guard has been vested with powers through its act no.41 of 2009 to act as the main entity of maritime law enforcement.

Despite numerous counteractions taken by the Government, unremitting drugs apprehension incidents in littorals of Sri Lanka indicate that the issue has not been addressed effectively. Since the issue encompasses non-traditional security issues and subsequently the national security of the

country, the focus should go beyond military measures and preferably be a combination of both military and non-military bodies. Therefore, it is significant to study ways of integrating military with non-military stake holders in possible directions such as better surveillance off the seas, real time intelligence sharing, training on equipment and technology in order to address the issue in a broad spectrum.

The drug trafficking scenario in Sri Lanka is mainly attributed to several internal and external factors. The strategic but vulnerable location in the center of the Indian Ocean having close proximity to the 'Golden Triangle' and 'Golden Crescent' is one of the key external factors which cannot be ruled out easily. The Golden Crescent in Asia comprises of Pakistan, Afghanistan and Iran and the Golden Triangle comprises of Laos, Myanmar, Thailand and Vietnam. These two regions are considered as global hubs for heroin as well as related opiate production and trafficking and Sri Lanka continues to be utilized as a transit point for drug smuggling from the 'Golden Triangle' and the 'Golden Crescent'.

The phenomenon of illicit drug trade, drug circulation and drug addiction is not new to the country, but it has reached a level which the Government cannot simply neglect. Not only for Sri Lanka, it has also become a serious issue for regional as well as extra regional countries despite numerous counter mechanisms. In the Sri Lankan scenario, it is not only identified as a serious social and health issue but also a huge challenge to national security due to the wide range of criminal activities related to drugs.

Figure 1: Golden Crescent and Golden Triangle
Source: The Journal 'Maritime Executive'

Scholars have defined the term 'national security' in numerous ways under many perspectives. According to Smith (2005), national security encompasses not only traditional threats, such as organized crime and terrorism, but also threats to economic stability, public health, and impact towards the way of life. This was further proven by an Indian academician Paleri (2008) listing a few major components of national security such as food security, demographic security, geostrategic security, military security, economic security, disaster security, resource security, health security, cyber security and ethnic security. Therefore, it is imperative to understand the impact of drug related issues on these elements to identify the real threat to national security of the country. As per the records available in the National Dangerous Drug Control Board (NDDCB, 2017), 1762 crime incidents were reported after illicit drug use and those were related to grave and minor crimes. In addition, drug rehabilitation programs incur a financial loss of Rs. 77,182.39 per month for a single drug patient which creates a huge impact on the economy of the country (Hewawaduge and Dorabawila, 2015).

It is usually argued that some of the results of the production, trafficking and consumption of narcotic drugs are to "undermine national institutions, weaken Government authorities, encourage corruption and contribute to political instability" (Mansfield and Whetton, 1996). While accepting this view, it can be argued that the reverse can also be true. That is, corruption, political instability and a weakened State can be a cause for production, trafficking and consumption of narcotic drugs as well. Even the experiences of Afghanistan and Myanmar would support this view. Thus, it is clear that this is a vicious circle.

Maritime Security Concerns in Sri Lanka

The bitter lessons learnt by Sri Lankans from its irregular warfare over three decades certainly opened the forum to think differently to face future challenges. As an island nation largely depending on the sea, the importance of maritime security towards achieving its national objectives cannot be easily ruled out. Ensuring maritime security by preventing unlawful elements use our oceans in the present scenario will have a significant influence on the future generation too.

Bueger (2015) states that Maritime Security is strongly related to four concepts; national security, marine environment, economic development and human security and those are interconnected with each other like a matrix. Most importantly, he has pointed out that 'Drug trafficking' has close relationships with human security and economic development.

A. Maritime Domain Awareness (MDA)

Maritime domain awareness is predominantly a security matter which encompasses all maritime related activities. Scholars have defined it in many ways and most commonly it is defined as 'effective understanding of anything related to the maritime domain that could influence the safety, security, economy and environment'. Further, it describes that the purpose of MDA is to facilitate the commander's ability to make informed, timely and accurate decisions in support of the full range of military operations (Hutchins et al., 2009).

The concept of Maritime Domain Awareness is not a very old phenomenon even for modern countries. Therefore, countries such as Sri Lanka are not widely using this concept in order to address maritime security challenges in present context. However, Sri Lanka Coast Guard is in the process of enhancing MDA by strengthening relationships with private stake holders and regional Coast Guards. Since Sri Lankan Coast Guard possesses law enforcement authority, it has better opportunities to reach the community through better coordination and cooperation.

Though most navies had not paid much attention to 'Maritime Domain Awareness' in the past it must be addressed much broadly in present day scenario due to its complexity and diversity. The sea borne attack on Mumbai in year 2009 is the best example for difficulty in implementing proper MDA and it was a clear eye opener for all maritime nations how terrorists managed to use routine fishing boats for their missions without getting detected. However, the Government of India has taken a number of steps to strengthen their boarder security just after this incident and those steps were published in the article released by the Press Information Bureau of the Ministry of Defence, on the topic of 'Initiative to Strengthen Coastal Security' (Indian Navy, 2018). According to that, the Indian Navy and Coast Guard have conducted many regular exercises with the

participation of other state agencies and could able to enhance the inter–agency coordination, between nearly 15 national and state agencies. In the year 2014 alone, the Indian Navy and Coast Guard have conducted many awareness campaigns for fishermen in the West border and their cooperation was considered as 'eyes' and 'ears' for Defence forces and they were indispensable for national security in the country.

B. Intelligence and surveillance operations
Due to its emerging strategic environment in the Indian Ocean Region (IOR), Sri Lanka is under numerous non-traditional security threats which need to be addressed in a comprehensive manner. However, at the moment, Sri Lanka does not contain with any MDA systems and it does several surveillance operations in coordination with Sri Lanka Airforce. Yet, several methods such as human intelligence, coastal observation points (radar stations) and maritime patrols are being conducted by the Sri Lanka Navy at present in order to monitor and prevent illegal maritime activities in littorals of Sri Lanka.

C. Role of the fishermen in MDA
According to the statistics published in the official website of the Fisheries and Aquatic Resources Department (2018), Sri Lanka is comprised with a larger fishing fleet with 32,025 motorized boats including 4,447 boats which are being fished offshore. In addition, there are 21,963 non-motorized boats which are operating in marine fishing. Further, the fisheries sector of Sri Lanka accounts for more than 1.8% of its national GDP. Therefore, fishing operation activities play a major role in this island nation which needs to address it in a very sensitive manner (Department of Fisheries and Aquatic Resources, 2018).

Most of the scholars believe that the supply reduction strategies through narcotic drug law enforcement are totally inadequate in Sri Lanka. Only 2.7% of the total supply of heroin is detected. Besides only about 54% of the heroin detections are at the point of entry and the rest in the course of domestic distribution and or consumption. Sarvanathan (1999) argues that being an island state, it should be relatively easier to cut off supplies at the point of entry itself. However, he believes that the lack of effective maritime domain awareness has hampered detection of sea-borne heroin smuggling. Yet, present day role of the Sri Lanka Navy with its limited number of large

vessels in addressing the issue is undoubtedly commendable.

Civil-Military Integration

There are numerous tasks and responsibilities that the military has to carry out which are not exactly in the conventional nature of a military. Those situations put more emphasis on civil-military cooperation. However, there is a considerable difference between the terms civil-military relations (CMR) and civil-military cooperation (CIMIC). The concept of civil-military relations is much more extensive and comprehensive whereas civil-military cooperation is regulated by certain specific agreements. However, it is clear that the term 'civil-military relations' is rarely defined and more often it is referred to as the relationship or integration between civilian and military institutes aiming to solve each other's problems.

Lavallee (2010) identifies the globalizing of the defence industrial sector through the concept of civil-military integration as a significant policy of the Government of the United States after the 9/11 attack. In his paper he describes the merits and limitations of integrating a commercial sector with military. Integration between the private sector and military on the process of industrialization can be adapted into the maritime sector through the procurement of advanced systems which can be utilized for monitoring vast sea areas.

Pathak and Surendra (2011) introduces few theories of civil-military relations and their three pillar theory is well emphasized as it can be exercised through institutions ranging from natural laws that empower the Ministry of Defence, to supervision committees and executive bodies such as military, police forces, and intelligence agencies. Thus, it is important to survey the feasibility of applying concepts of civil-military cooperation of the Sri Lankan context.

Allied Joint Doctrine for Civil-Military Cooperation

As one of the military facilitators, the North Atlantic Treaty Organization (NATO) has identified a comprehensive approach for the civil military cooperation and produced it as a doctrine. This permits the military to reach their

desired objectives by coordinating, harmonizing, synchronizing and de-conflicting the activities with civil actors, consequently linking military maneuvers with political objectives (Lavallee, 2010). Initially, it has identified the evolving strategic environment and incorporated threats and implications for military objectives. Therefore, several principles for the Civil-Military cooperative mechanism have been identified below.

i.   Understand the environment.
ii.   Understand the objectives of the civil and military actors.
iii.   Gain trust and respect.
iv.   Integrated planning.
v.   Effective communication.
vi.   Operate within the law.

The Coast Watch System of the Philippines

Philippines, an archipelago state in South East Asia has been under threat of many non-traditional security issues due to its vulnerable location. In order to address the issue, the Philippine Government with the assistance of Australia and US has initiated a new concept titled 'Coast Watch System (CWS)' which was conceptualized in year 2006. Its vision is to promote synergy and collaboration among actors while managing resources to achieve common objective. With the idea of having effective and efficient counter mechanisms, a few key functions such as developing a common operating picture, collecting, consolidating and integrating all data relevant to maritime security, providing real time information among all stake holders, were taken care of by the National Defence Research Institute of Philippines (Rabasa and Chalk, 2012). The whole system was coordinated by the Maritime Research Information Center and presently Philippines is in the process of developing a maritime group that will be responsible for law enforcement procedures. This MDA mechanism also specifically counters non-traditional security issues such as maritime drug trafficking, having an effective collaboration between MDA centers belonging to military and non-military sectors of the country.

Conclusion and Recommendations

The primary objective of this study was to identify the prospects of enhancing Civil-Military integration which can be a positively influence on

maritime drug trafficking within the Sri Lankan context. Scholarly articles, journals and reports taken from various institutions comprise secondary data and special emphasis was given to joint civil-military doctrine of NATO and the Coastal Watch System of the Philippines.

The dynamic, complex and unorthodox environment of a problem in this nature requires a comprehensive approach with a common sense of purpose, shared understanding, effective collaboration and appropriate resourcing among both civil and military stake holders under one central authority. Identifying each other's working environments, their strengths and weaknesses and their responsibilities would ensure the reaching of this common goal in time. Following are the recommendations of this study.

i. To have a Government sponsored central authority to carry out effective coordination among all the stake holders including national and international actors in every activity related to counter maritime drug trafficking.

ii. In order to have a comprehensive joint approach for the issue, developing a policy plan containing the following aspects is recommended;

   (1)   To create the understanding and clear perception that this threat is a common enemy and that they are all working towards a common objective appreciating their own areas of responsibilities.
   (2)   To conduct campaigns, awareness programmes, common forums, joint exercises with the purpose of building confidence, respect, trust and mutual understanding among all stake holders.
   (3)   To encourage practical cooperation among all stake holders at all levels such as integrated planning efforts and conducting joint operations.
   (4)   To have a national level mechanism to gather, process and disseminate all pertinent information and intelligence at an appropriate time with relevant stake holders.
   (5)   To facilitate access to technology and resources in both civil and military when necessary.

iii. To re-define the legal powers entrusted on military as well as the Sri Lanka Coast Guard, in

order to have speedy and transparent legal actions.

iv. To implement a 'Ship Rider Agreement' to facilitate civilian authorities to have better understanding and access to maritime security concerns of the country.

e. To provide opportunities for military to participate in civil forums /discussions like SARICS (South Asian Regional Intelligence sharing Council) and SRP (Southern Route Partnership).

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The Indo-Pacific: An Examination of Regional Instruments for Improved Coordination

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Abstract—The Indo-Pacific has become the focal point of discussion among strategists in the 21st century, which is evident from the implementation of different instruments such as the Quadrilateral Security Dialogue and the Free and Open Indo-Pacific (FOIP). The strategic posture entailed within the Indo-Pacific security architecture necessitates a military balance of power within the region, as the power rivalry in the Indian Ocean has evolved beyond military aspects into economic, ideological and technical dimensions. Therefore, this research examines how these international instruments could be better coordinated, in order to improve the balance of power in the region. Towards this end, this research has two objectives, firstly, to map out the different regional mechanisms that are in position to improve interaction; and secondly, to analyse what steps need to be taken to improve the balance of power in the Indo-Pacific. Qualitative in nature, the research utilises primary sources such as the strategy documents issued by governments and security groupings, speeches from world leaders, along with secondary sources. The research underscores that the oceans of the Indo-Pacific remains central to this evolving power struggle, as the economic centre of gravity shifts to the East, necessitating peaceful interaction to increase trust and improve the balance of power. FOIP assures a proactive contribution to peace based on the principle of international cooperation, encouraging likeminded navies in the region to increase collaboration and cooperation. In conclusion, it can be ascertained that the increased number of regional groupings has reduced the level of trust within the Indo-Pacific thus, calling for more synergies and understanding among international instruments.

Keywords: Coordination, Free and Open Indo-Pacific, Indo-Pacific, Quadrilateral Security Dialogue

Introduction

The Indo-Pacific region articulates a new geopolitical landscape expanding from the East coast of Africa across the Indian Ocean to the Western and Central Pacific Oceans. The rise of China with its strategic outreach in to the Indian Ocean Region (IOR), the decline of the alliances championed by the United States (US) and their attempts to resurge, make the Indo-Pacific strategically significant in the 21st century (Diplomat, 2020). Moreover, the Indo-Pacific is viewed as a new multipolar region owing to the appealing demographic attributes of the region. The presence of 38 countries sharing 65 percent of the world population, accounting for 62 percent of the world's Gross Domestic Product (GDP) and 46 percent of the world's merchandised goods passing through the region are encouraging attributes of an emerging multipolar region (De, 2020). These elements make the rise of the Indo-Pacific significant, owing to its economic, political and strategic attributes. This contributes towards an emerging understanding that the Indian Ocean and the Pacific Oceans are interlinked strategic theatres which bring diverse issues to the forefront.

The Indo-Pacific region is home to vital sea routes that connect major economies in the Middle East, Africa, East Asia, Europe and America. Today, more than ever, the world economy is heavily dependent upon seaborne trade as a volume of more than 90 percent of traded goods are transported by sea. The Indo-Pacific is also home to nine out of the ten busiest seaports in the world. The amount of maritime trade transited only through Asia amounts to 60 percent of the world's transit cargo and one-third of the global

shipping passes through the South China Sea (SCS) (Department of Defence, 2019). Thus, the Indo-Pacific is capable of influencing global trade to a greater extent, necessitating security of the Sea Lanes of Communication (SLOC), a significant component in the global maritime trade.

The security of the SLOCs, trade potential and maritime connectivity within the region make the Indo-Pacific strategically significant, as it connects two theatres giving a unified understanding about the strategic inter-connectedness, common responsibilities, common challenges and opportunities present within the region. Hence, according to Bishoyi (2016) the Indo-Pacific has also become a place for power in the 21st century owing to the strategic significance within the region. Therefore, the unhindered trade connectivity through the maritime space of the region is a major concern among both regional and global players in developing and executing their maritime strategies as a response to the growing security dynamics of the Indo-Pacific.

Consequently, the Indo-Pacific has become the focal point of discussion among strategists in the 21st century, which is evident from the implementation of different instruments such as the Quadrilateral Security Dialogue and the Free and Open Indo-Pacific (FOIP). The strategic posture entailed within the Indo-Pacific security architecture necessitates a military balance of power within the region, as the power rivalry in the Indian Ocean has evolved beyond military aspects into economic, ideological and technical dimensions. Therefore, this research examines how these international instruments could be better coordinated, in order to improve the balance of power in the region. Towards this end, this research has two objectives, firstly, to map out the different regional mechanisms that are in position to improve interaction; and secondly, to analyse what steps need to be taken to improve the balance of power in the Indo-Pacific. Qualitative in nature, the research utilises primary sources such as the strategy documents issued by governments and security groupings, speeches from world leaders, along with secondary sources as methods for data collection.

In order to understand the security dynamics of the Indo-Pacific, the following sections provide an understanding of the various international instruments available. This enables the first objective outlined in this paper to be achieved, i.e. to map out the different regional mechanisms that are in position to improve interaction in the Indo-Pacific.

A. International Instruments
The Indo-Pacific is a focal point of discussion due to major power rivalries within the region such as those between India-China and China-US. It is noteworthy of mention that these rivalries have become major causes of concern, especially among the Asian countries. Economic independence and regional instruments were traditionally regarded as mitigating tools for great power rivalry and inter-state conflicts in Asia (Jung, Lee and Lee, 2020). The Association of South East Asian Nations (ASEAN) has been in the forefront in ensuring peace and security within the Southeast Asian region. Accordingly, ASEAN has been working towards its mandate of developing an inclusive security architecture for the region based on the collective leadership in shaping the vision for closer cooperation within the Indo-Pacific (The ASEAN Outlook on the Indo-Pacific, 2020). Therefore, balance of power within the Indo-Pacific will largely depend upon the behaviour of the United States, China, Japan and India. Furthermore, responses of major Southeast Asian states, such as Indonesia and Vietnam, have also become important elements in determining balance of power within the Indo Pacific (Foreign Policy White Paper, 2017).

The ASEAN's Senior Officials Meeting (SOM) held in Bangkok 2019, adopted the *ASEAN Outlook on Indo-Pacific* as a collaborative measure to further strengthen its founding principles of developing and shaping the regional architecture in Southeast Asia and beyond (Saha, 2020). The ASEAN's outlook on the Indo-Pacific is based on four principles; i.e. the Indo-Pacific is not a contiguous territorial space but a closely interconnected and an integrated region; an Indo-Pacific region of dialogue and cooperation instead of rivalry; an Indo-Pacific region of development and prosperity for all; and lastly, the importance of the maritime domain and perspective in the evolving regional architecture (Bhatt, 2019). This highlights the importance ASEAN places on cooperation, sharing of resources and a common security architecture, based on the ASEAN values.

Moreover, the *ASEAN Outlook on the Indo-Pacific* provides additional emphasis to ASEAN-led mechanisms, including the East Asia Summit

(EAS), the ASEAN Regional Forum (ARF), the ASEAN Defence Ministers Meeting Plus (ADMM-Plus), the Expanded ASEAN Maritime Forum (EAMF) and others such as the relevant ASEAN Plus One Mechanisms (Indonesia Defense Strategy towards Indo-Pacific, 2020). ASEAN's outlook on Indo-Pacific showcases ASEAN's centrality within Indo-Pacific and its inclusive nature.

Interpretations given by various countries on the Indo-Pacific too has given rise to the coinage of numerous international instruments. This has led to a better understanding of the concept and given insight to its diversity. India perceives the Indo-Pacific as an inclusive space where common responsibilities and common interests are heighted, whereas the US emphasises a rules-based order in the region (Singh, 2020). This points towards the second instrument in the Indo-Pacific region, in which both Japan and US emphasise the Free and Open Indo Pacific concept (FOIP) that highlights the importance of the rules in the region. Thus, it can be observed that both Japan and United States promote a shared vision on a Indo-Pacific region that is accessible to all. The *Indo-Pacific Strategy Report* (2019) published by the US Department of Defence defines the "Indo-Pacific as the priority theatre with all nations, large and small, are secure in their sovereignty and able to pursue economic growth consistent with accepted international rules, norms, and principles of fair competition". The Department of Defence highlights China as a revisionist power and that the US would use all lethal powers to contain China in Indo-Pacific, should the need arise. Furthermore, the US attempts to promote their enduring commitments in the region through different lines of efforts such as preparedness, partnerships and an increasingly networked region.

FOIP promoted by the US identifies their rivalries; China as a revisionist power; Russia as a malign actor; and the Democratic People's Republic of Korea (DPRK) or North Korea as a rogue state. Unfortunately, FOIP has not been fully subscribed to by many states as there is a principle deviation from the original concept of the Indo-Pacific and with that of FOIP.

The third international instrument that is in place at present is the Quadrilateral Security Dialogues, better known as the QUAD. QUAD is a grouping between Australia, India, Japan and the United States of America to cooperate and collaborate in the Indo-Pacific region. The Quad got their momentum through several minilateral dialogues and frequent meetings between the member states. Two members of the grouping, i.e. USA and India agreed to several military agreements in the recent past, namely Communication Compatibility and Security Agreement (COMCASA) in 2015 and the Logistics Exchange Memorandum of Agreement (LEMOA) in year 2016. Furthermore, Japan-India civil nuclear cooperation agreement was signed in 2017 and became a momentous occasion of the bilateral relations (Buchan and Rimland, 2020). The Malabar Naval Exercise between United States, India and Japan as well as the Australia-India bilateral naval exercise (AUSINDEX) have been able to strengthen the minilateral grouping and military-to-military capabilities between the QUAD nations.

Discussion and Analysis

This section deliberates on achieving the second objective outlined in this paper, i.e. to analyse what steps need to be taken to improve the balance of power in the Indo-Pacific. The Indo-Pacific has captured global attention as an emerging multipolar region as it combines the Indian and Pacific Oceans. History indicates the emergence of larger power blocks was witnessed through the amount of resource endowment including size and the scale of the economy (De, 2020). Many strategists believe that the Indo-Pacific is a region that is difficult to define in a political sense, as it is still developing (Biswaas, 2020). On the other hand, it is also viewed as an approach to contain China's strategic outreach into the Indian Ocean. However, USA and Australia view the Indo-Pacific as an extension to the former Asia-Pacific with the inclusion of India as an emerging superpower in the 21st century. Conversely, both India and Japan see the Indo-Pacific as a combination of two continents; i.e. Africa and Asia with the confluence of the Indian and the Pacific Oceans (He, 2020).

The Indo-Pacific is home to two of the world's most populous countries; China and India. Militarily, seven of the largest standing armies in the world are based in the Indo-Pacific. One-third of the global shipping passes through one of the most contested ocean spaces in the region, the South China Sea (Biswaas, 2020). The Indo-

Pacific also homes more than 50 percent of the world's population including the world's largest Muslim population in Indonesia. The presence of major sea routes connecting choke points Bal al Mandeb and the Malacca Strait on either side of the region adds more strategic value to the region (Biswaas, 2020). This illustrates the significance of the Indo-Pacific region and the importance of the individual countries falling under the region. The *Indo-Pacific Strategy Report* (2019), indicates the Indo-Pacific as a priority for the U.S., aimed to contain China's presence in the Indian Ocean. However, it is unclear as to whether China is included as a partner in the Indo-Pacific regional discourse, as there is currently no documented evidence to prove that. Yet China has been into the Indo-Pacific both in economic and strategic terms through its Belt and Road Initiatives (BRI). The United States claims that the "Indo-Pacific is the single most consequential region for the America's future" (Bubnova, 2019). This is because of the strategic interests the United States has in the region vis-à-vis containing China as well as in accessing resources in the region.

Economically, the Indo-Pacific has become the world's economic centre of gravity due to the presence of three major economic giants in the world; the US, China and Japan. The availability of hydrocarbons has created competition among both established and emerging powers. Trade wars between two major players, USA and China may negatively impact the economies of the Indo-Pacific states. Moreover, the inclusion of several flash points and choke points could also be possible sources for military conflicts in the region. The unresolved maritime disputes prevailing in both the East China Sea and the South China Sea could likewise be viewed as triggering points for clashes among the USA and China as these are disputed maritime spaces. Thus, the Indo-Pacific is viewed as a possible maritime space for US-China rivalry in the coming decades as it goes beyond the military in to economic, ideological and technical aspects, necessitating increased opportunities for cooperation and competition amongst established and rising powers within the region (Bishoyi, 2016).

Even though the Indo-Pacific has the aforementioned regional instruments, there is a significant lacuna in terms of providing membership to all the countries in the region through these mechanisms. In other words, the instruments for regional cooperation lack collaboration and an approach to collective security. As the second objective outlined in this paper is to analyse what steps need to be taken to improve the balance of power in the Indo-Pacific, the first possible solution is to be more inclusive in the regional mechanism in order to decrease the trust deficit among nation-states. Thus, inclusivity in regional instruments is paramount which calls for the anti-Chinese rhetoric to be abandoned and to instead, include China in the various groups such as QUAD and FOIP to ensure that they are able to participate enjoying equal access. Inclusivity of this nature then enables all parties to be equally responsible for their activities and to likewise promote a rules-based culture.

Secondly, the research underscores that the oceans of the Indo-Pacific remains central to this evolving power struggle, as the economic centre of gravity shifts to the East, necessitating peaceful interaction to increase trust and improve the balance of power. From ancient times, relations based on commerce and trade have remained the cornerstone of international relations. This was because it was necessary to sail across the oceans to exchange and sell goods and merchandise. Therefore, as this feature increases manifold, it calls for more peaceful interaction between countries to facilitate trade and commerce as well as to increase avenues for supply chains to ensure an uninterrupted flow of material. Peaceful relations between states further create a conducive atmosphere for economic interactions as states and their people increase their purchasing power capabilities. At the time of writing, China and India are having border skirmishes in the Galvan Valley, reducing the trust between two countries and likewise affecting their bilateral trade. Therefore, including both these players into FOIP would enable that other states too are able to assist them bridge their trust deficit. Furthermore, collaboration on common grounds and groupings enable more transparency which can propel economic growth. Hence, economic cooperation among states which ensure they thrive, is a mandatory requirement to warrant that states respect and collaborate with one another.

Thirdly, FOIP assures a proactive contribution to peace based on the principle of international cooperation, encouraging likeminded navies in the region to increase collaboration and

cooperation. This understanding stems from the previous point of discussion of inclusivity. The current regional mechanisms in place do not include many of the regional partners, therefore, an inclusive QUAD or FOIP would enable the navies of these countries to also interact better with one another. In this context, not only will trust between navies increase, but it will also ensure that navies can collaborate in addressing traditional and non-traditional threats to states.

Conclusion

The research initially specified the various regional instruments available in the Indo-Pacific region that can be utilised to expand relations in the region. In doing so, the first empirical finding of this research was identifying that these regional mechanisms have not been utilised to their maximum potential. Accordingly, the research achieved its first research objective of mapping the different regional mechanisms that are in position to improve interaction.

In achieving the second research objective, the research analysed what steps needed to be taken to improve the balance of power in the Indo-Pacific. Therefore, the second empirical finding of this research was identifying that there was a significant lacuna in providing membership to all the countries in the region via these organisations. The research underscores that this is a hindrance in achieving regional growth and prosperity as well as in increasing unity. Therefore, there is a need to improve the membership of these organisations.

Improving the inclusivity of the regional organisations was the third finding of this research. Therefore, the paper emphasises that it is important for all relevant stakeholders to be involved, thereby reducing the animosity in the region and improving geopolitical connections. Furthermore, inclusivity enables the parties to better harness their geographical resources and work harmoniously.

In conclusion, it can be ascertained that the increased number of regional groupings has reduced the level of trust within the Indo-Pacific, thus, calling for more synergies and understanding among international instruments. This can be identified from the number of regional instruments in the Indo-Pacific region their membership or constitution. Therefore, in addressing the research problem, this paper calls

for inclusivity of members to increase the trust between the states, as the lack of transparency has fuelled suspicion between the actors. Stemming from this, the paper calls for increased interconnectedness between navies by sharing knowledge and know-how in order to increase collaboration between the states. These activities, therefore, increase attempts by regional instruments to circumvent threats by non-traditional security as well. Furthermore, the paper underscores the importance of economic interconnectedness to ensure the regional instruments are effective in collaborating with one another.

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Author Biographies

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Analysing Covid-19 as a Modern Strategy in International Power Game

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Abstract— 'New Coronavirus' or 'COVID-19' is identified as a 'pandemic' by the World Health Organization. Apart from the concerns on health security of world population, this pandemic was able to create chaos in the international power game since Western politics accused China for the invention of the virus. However, who is responsible? is yet a mystery to be resolved. Therefore, the problem statement of this study is to find out "whether COVID-19 is a bioweapon China used as a modern strategy in world power game?". In order to find feasible solutions, this study consists of the research questions of; whether 'COVID-19' is a natural virus? Or an artificially constructed virus? Or a virus invented to be used as a biological weapon? the pros and cons for China as a result of 'COVID-19'? With these, the weightage of this research will be more to reveal the pragmatism behind accusations inline to international power game. Therefore, the objective of this study is to analyse the relevance of this pandemic in international power game. It is also important to note that this is an explorative study and in order to achieve the research goals, the research methodology adopted in this study is qualitative, based on secondary sources of media and internet. Ultimately, it is the prime objective of this study is to understand new global geopolitical realities of superpowers by means of soft power rivalry and further to navigate its' impact on State security.

Keywords: Covid-19, Biological Weapon, International Power Game

Introduction

'New Coronavirus' or 'COVID-19' is named as a world pandemic situation. The word 'pandemic' is a combination of two Greek terms 'pan' which means "all" and 'demos' means "people". It is defined as *"an epidemic occurring worldwide, or over a very wide area, crossing international boundaries and usually affecting a large number of people"*. (Kelly 2020) The classical definition excludes population immunity, virology or disease severity whereas seasonal epidemics are also not considered pandemics.

Throughout human history, there have been a number of pandemics of diseases such as smallpox and tuberculosis. The most fatal pandemic in recorded history was the Black Death (also known as '*The Plague*'), which killed millions of people in the 14th century. The term was not used yet but was for later pandemics including the 1918 influenza pandemic (*Spanishflu*) and current pandemics include HIV/AIDS and COVID-19. However, WHO believes that changing the language does not change anything about how the virus is behaving, but the they hoped it will change how countries tackle it.

Beginning in December 2019, in the region of Wuhan, China, a new *("novel")* coronavirus began appearing in human beings. It was named COVID-19, a shortened form of "coronavirus disease of 2019." This new virus spreaded incredibly quickly between people, and it is said that due to its newness, no one on earth has an immunity to COVID-19, because no one had COVID-19 until 2019. While it was initially seen to be an epidemic in China, the virus spread worldwide within months. "*The WHO declared Covid-19 a pandemic in March, and by the end of that month, the world saw more than a half-million people infected and nearly 30,000 deaths. The infection rate in the US and other nations was still spiking*" (MPH Online 2020)

The COVID-19 pandemic is identified as a potential tragedy in U.S.-China relations and a potential tragedy for the world power game. The nature of the two countries' political realities in

2020 have led to initial mismanagement of the crisis. And the interactions between the two sides, and with other actors, such as the World Health Organization, seems so far worthless as opportunities for cooperation to tackle the common threat.

Research Design

Despite the fact 'COVID-19' is a natural virus or an artificially constructed virus or a biological weapon, it is yet a mystery who is responsible? Therefore, the problem statement, hypothesis and design of this research are as follows;

Research Problem- Mainly focus to solve "Whether COVID-19 is a bioweapon China used as a modern strategy in world power game?"

Research Questions:

- ➢ Whether 'COVID-19' is a natural virus? Or an artificially constructed virus? Or is it a virus invented to be used as a biological weapon?
- ➢ Whether the virus was accidently released from laboratories? (prior to achieve it ultimate objective. If, it was invented as a bioweapon?)
- ➢ Whether the negative impacts occurred to China due to COVID-19 is major than its impact to U.S.?

Hypothesis- COVID-19 is a laboratory constructed virus by China and it seems to have been accidently disclosed to the world during experiments. It cannot be called as a 'Biological Weapon' invented by China to use against U.S., because COVID-19, as a whole, has negatively affected to China than to U.S.

Research Objectives- In order to answer the above problem, statement an extensive study of how 'COVID-19' affect geopolitics, with disclosure of relationship between pandemics and world power game is required. Therefore, this study aims to:
- Understand the origin of 'COVID-19'
- Understand the nature and impact of biological weapons
- Understand the new global geopolitical realities of superpowers
- Ultimately, to analyse the impact of 'COVID-19' to China versus U.S.
-

Biological Weapon

Biological Weapon is also known as 'Biological Warfare' and sometimes as 'Germ Weapons' too. A biological attack can potentially result in an epidemic or a pandemic, therefore creating a massive disruption in the society, and complexifying the response of health authorities.

As per the definition of WHO (2020), *"Biological weapons are microorganisms like virus, bacteria, fungi, or other toxins that are produced and released deliberately to cause disease and death in humans, animals or plants. Biological agents, like anthrax, botulinum toxin and plague can pose a difficult public health challenge causing large numbers of deaths in a short amount of time while being difficult to contain. Bioterrorism attacks could also result in an epidemic, for example if Ebola or Lassa viruses were used as the biological agents. Biological weapons is a subset of a larger class of weapons referred to as weapons of mass destruction, which also includes chemical, nuclear and radiological weapons. The use of biological agents is a serious problem, and the risk of using these agents in a bioterrorist attack is increasing".*

It is imperative to note that Biological Weapons can cause widespread casualties with minimal logistic requirements. It is proven that these agents are easy to produce, economical for deployment and selective to the target. Afzal (2020) elaborate the cost effectiveness of Bioweapons as, *"cost of 50% casualties per meter square is US$ 1 as compared to conventional weapons US$2000, nuclear armaments US$ 800, chemical agents US$ 600".*

Furthermore, if biological weapons are Weapons of Mass Destruction as per the explained by WHO, it means that they have the objective of causing public panic, leading to social disruption and eventually mass destruction, they are also known to be efficient for isolated assassination. "*One of the most recent cases demonstrating this probability is the Anthrax letters in 2001 in the USA, when letters full of Anthrax bio-agent were specifically sent to US politicians and journalists".* (Guillouet-Lamy, 2020). In legal backdrop, Geneva Protocal 1925 has banned biological weapons and 1972 Biological Weapons Convention (BCW) governs the legality of biological weapons. As per Article VII of the BWC, *"Each State Party to this Convention undertakes to provide or support assistance, in accordance with the United Nations Charter, to any Party to the*

Convention which so requests, if the Security Council decides that such Party has been exposed to danger as a result of violation of the Convention." (GCSP 2020) In other words, there is a legal obligation for all States Parties to assist any other State Party that would suffer from a biological attack. The Convention bans the use of biological weapons in war and prohibits the development, production, acquisition, stockpiling, or transfer of such weapons. However, the proliferation of biological weapons is difficult to detect and quantify. It is also vital to note that the major backdrop in the Convention is that upto date, there are no verification or inspection procedures to prove the signatories comply with the Convention. As per Guillouet-Lamy (2020) points out, *"16 Member States of the UN still had not signed nor ratified the treaty by 2013".*

A. What requires qualifying as a 'Biological Weapon'?

Biological Weapons are one of the four Weapons of Mass Destruction (WMD). Biological weapons differ from other Weapons of Mass Destruction (nuclear, radiological and chemical) in different ways. According to Guillouet- Lamy (2020) highlights: *"First, the effects of a biological attack can take several days to several weeks to appear which makes it difficult to anticipate and respond. Second, contrary to other WMD, bioweapons can only target the living things (humans, crops and livestock) and have no impact on infrastructures or equipment. Finally, contrary to a nuclear program for instance, developing a biological warfare program does not necessarily require significant technical and financial investments and capabilities. Finally, biological weapons are not to be confused with biological agents, which represent one of the elements that composes a biological weapon. Indeed, not all biological agents have been, or can be, turned into a weapon. The weaponization process of a biological agent is specific and not so common".*

It is found that a biological weapon has 3 components: 1) a biological agent 2) some additives to support the stability and dissemination of the agent 3) a delivery system. As per the article of Guillouet- Lamy (2020); biological agents are divided into two types: pathogens and toxins. Pathogens are disease-causing organisms such as Bacteria (which can cause diseases such as plague or anthrax),

Rickettsia, Viruses, and Fungi (which can cause crops' diseases like rice blast or cereal rust). On the other hand, toxins are poisonous substances produced by living things like snakes, insects, spiders, plants, etc. Although toxins are not self-replicating, their toxic power is high, and they are extremely lethal even in small quantities. It is evident that a biological agent alone cannot be turned into a weapon. After adding some additives to stabilize the agent, it requires to be combined to a delivery system, which gives to the agent its full destruction capacity. Biological agents can be disseminated as aerosols, within food or water, by a zoonotic vector (such as rodent, insect) or by injection.

A. Whether 'COVID-19' is a 'Biological Weapon'?

In order to find feasible answers to this question, researcher has focussed on different scholarly perspectives:

As per Wood (2020), *"One of Ukraine's top scientists has poured scorn on the idea that COVID-19 could be an artificially constructed virus or a biological weapon……………In May 2020, a report from the University of Oxford in the UK suggested that more than a quarter of people in the UK believed the COVID-19 pandemic started in a Chinese laboratory, whether that be as a bioweapon or as a result of testing. But the vast majority of scientists and experts CGTN Europe has spoken to say that, given the information they know, it could not have started from inside a lab, with the most likely cause animal interaction"* [Emphasis added]

According to Carbanaro (2020), *"researchers, doctors, politicians and intelligence services around the world are convinced that COVID-19 evolved naturally. They have studied its makeup, its behaviour and other context to make their conclusions. In contrast, CGTN has been unable to find a single credible figure from the scientific community who believes COVID-19 was artificially created. One of the most persistent has been the suggestion that COVID-19 is a man-made bioweapon. Sometimes these claims have been able to flourish because the virus is so new that scientists simply do not have hard enough evidence and corroborated research to dismiss them".* As per Aslam (2020), *"a publication in Nature containing the most applauded scientific research to date, which absolutely confirms the natural origin of COVID-19, ruled out any of the conspiracy hypotheses in early April: that it was created as a*

biological weapon to reduce the world's population, or that it was an experiment developed in Wuhan to reduce China's elderly population, or even the theory of a fatal error, according to which someone would have dropped a test tube in the city which has been ground zero for the pandemic. Much less the hypothesis spread in China that U.S. soldiers brought the virus to the outbreak region during a military sports tournament last fall"

As per the views of Guillouet- Lamy (2020), *"Covid-19 like Ebola, are not airborne viruses, which means that to be used as a Biological Weapon, it would rely on the transmission from person-to-person, and not on a delivery via an aerosol for instance, which is known to be the most efficient way to spread a biological agent. Additionally, Covid-19 and Ebola are very unstable viruses and would be extremely difficult and dangerous to weaponize since no vaccines are yet available, and since it would require a BSL4 Lab to manipulate these viruses…these laboratories are in limited numbers. Now yes, one could argue that the Wuhan Institute of Virology in China, originally a BSL3 Lab, was recently completed by a BSL4 facility in 2015, and therefore could have been able to manipulate this virus, and it did after the discovery of the new coronavirus. But the probability that this virus could have been created by biologists in the BSL4 Lab in Wuhan is very low, since SARS-CoV-2 does not look like any viruses already known by the scientific community, which could have served as a base to create this new virus…………….For COVID-19, the origin of the virus is still unknown. A study published in February 2020 by the Wuhan Institute of Virology identifies the bat coronavirus RaTG13 as the closest parent of SARS-CoV-2, sharing 96,2% of their overall genome sequence identity. A second study from the Hong Kong University and Guangdong-Hongkong Joint Laboratory of Emerging Infectious Diseases shows that a group of beta-coronaviruses found in the pangolin species are even closer, with 97,4% similarities with the SARS-CoV-2 amino acid sequence. However, despite their apparent close parental ties, in genetic these differences are too big to assume that SARS-CoV-2 could have been elaborated in a lab, by human hand"* [Emphasis added]

Therefore, in a nutshell, analyzing aforesaid opinions, it is potential to mention that there is no confirmed evidence on the origin of COVID-19, except the fact that it was initially identified in Wuhan, China. Moreover, these scholarly perspectives are more biased to the argument that COVID-19 could not have been laboratory constructed.

'Covid-19': A Modern Strategy in World Power Game?

In the viewpoint of international geopolitics, U.S. is considered as the sole superpower whereas China is considered as the 'rising' power in world power game. It is obvious that the ongoing COVID-19 crisis have pressed the international community to reflect about current and future biological threats as means of a *soft power* in world power rivalry.

While dealing with COVID-19 allegations in world power game, one must not forget that the debates and rising concerns emerged about the possibility that the SARS-CoV-2 was developed as a biological weapon by the Chinese. According to Guillouet-Lamy (2020), *"If questions still remain regarding the emergence of the virus, no valid proof can support the theory that the SARS-CoV-2 was weaponized and intentionally released by the Chinese"* As the ongoing pandemic, Christensen (2020) pointed out that the brief calls for a ceasefire between Beijing and Washington on criticism of the two countries' initial responses to the SARS-CoV-2 virus, accompanied by a commitment to an eventual international investigation of what went wrong in all countries during the early phases of the pandemic.

It is apparent that a considerable number of countries have cast doubt on China's action in relation to COVID-19 that has caused the most serious global health and economic crisis in the last century. Therefore, at the moment, the credibility of the eastern power is already in question, especially with the political virus rooted in the obsession with the great power game. It is further established by the fact that U.S. Government has labelled China and Russia as the biggest challenges to U.S. national security in its latest National Security Strategy and National Defense Strategy.

As per Aslam (2020), *"not long ago, the American media revealed that senior US officials had handed down documents to a number of federal agencies requesting all federal employees to speak consistently about the pandemic and blame China for everything. ……. After the WHO and the scientific circle named the novel coronavirus*

COVID-19, some American politicians deliberately ignored the new nomenclature and insisted on calling it the "Chinese virus".

However, with all these, as per Wood (2020) reported Sergiy Komisarenko, National Academy of Sciences of Ukraine told CGTN Europe: *"So my own opinion, at this very moment, is that this is not an artificially constructed virus. By the way, when some of the fake news, or some experts even, are saying that, 'look, China has a very sophisticated, very updated virology institute, which has a collection of coronaviruses.' Yes, it does … Why? Because the first really dangerous outbreak of a coronavirus was in China in 2002. And there was an international idea to make the research institute in China, which will be looking for coronaviruses and for the possible further outbreaks of coronavirus infection. this institute, and it was collaborating and cooperating with scientists from different countries, just recently with France. They were cooperating with United States scientists, with Australian scientists and with others. Can you imagine it making biological weapons in cooperation with scientists from different countries? No, not at all,"* This provides a plausiable explanation on bioweapon accusations against China.

'Covid-19' Impact on China and U.S.

As the first country to be experienced the COVID-19 pandemic, China is several weeks ahead of other countries on the "curve" of the virus progression and also in the measures taken to overcome the crisis. With this, the epicenter of the coronavirus outbreak has shifted to the U.S. while China projects the image of a country that has successfully combated the virus and is ready to help the world. For example, China has sent doctors and medical supplies to countries around the world even as the European Union and the U.S. are trying to consolidate their own domestic responses to the global outbreak. This paved way to decide that the Trump administration has been facing a lot of criticism for its inefficient handling of the pandemic. It is the majority scholarly opinion that it would be illogical to claim that the Chinese leadership intentionally released the COVID-19 virus into the global community due to the fact that the damage caused to economies on which Chinese companies rely on for their profits and for many their existence is immense, and will have an effect on growth prospects in China for years. In addition, within a few feeks of

identifying COVID-19, medical masks rapidly became the most essential commodity in the world which paved way to "mask diplomacy". As per Bradsher K. and Alderman L. (2020), *"China made half the world's masks before the coronavirus emerged there, and it has expanded production nearly 12-fold since then. But it has claimed mask factory output for itself. Purchases and donations also brought China a big chunk of the world's supply from elsewhere".* Therefore, another may also argue though the world is badly affected due to COVID-19 due to travel restrictions and global economic failures, yet China is keep rising due to masks and other medical products.

Concluding Remarks

In initial responses to COVID-19, both Chinese President Xi Jinping and U.S. President Donald Trump started off with denial and misinformation. Simply, after imposing lockdowns, the world's two largest economies engaged in propaganda battles. China has blamed the U.S. military for the presence of the virus in Wuhan, and Trump has spoken about the "Chinese virus." According to WHO director general Tedros Adhanom Ghebreyesus stated, *"We're not just fighting an epidemic; we're fighting an infodemic and fake news spreads faster and more easily than this virus and is just as dangerous. We do not know where or when the next global pandemic will occur, but we do know that it will take a terrible toll, both on human life and on the global economy".*

With all these, it is evident that COVID-19, whether it is a bioweapon invented by China as a modern strategy in world power game is yet a mystry unsolved. However, aftermath of careful analysing of research findings it can be summarized as, there is no confirmed evidence on the origin of COVID-19, except the fact that it was initially identified in Wuhan, China. Moreover, research findings seem more supportive to the argument that COVID-19 could not have been laboratory constructed. However, the argument that it may be a laboratory constructed virus by China and it maybe accidently disclosed to the world during experiments cannot be disregarded too. Considering the results of COVID-19, it is possible to mention that COVID-19 cannot be called as a 'Biological Weapon' invented by China to use against U.S., because COVID-19, as a whole, it has

negatively affected to China than to U.S. Thus, it is even impossible to give concluding remarks with that regard, because one may also argue, China invented COVID-19 as a bioweapon and though its negative impact seemed bounced back to China, truly, U.S. has been already justified as a *Failed State* in the world community in combating COVID-19, whereas China has anyway won the current world power game using a soft power. If the latter is the reality, it further acknowledges the myth that future world power rivalry will not be based on conventional wars (hard power) but will decide by means of soft power.

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The Impact of Leader Images in Sri Lanka's Foreign Policy Making from 2005 to 2019

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Abstract— Any leader of a country, as its foreign policy executive (FPE), may perceive systemic stimuli with surgical precision, hence positioning his country in a foreign policy trajectory, which in turn facilitates the realization of its goals and aspirations. However, a nation state, since its inception in 1648, will encounter dire political repercussions if the said systemic signals are perceived with abject failure by the FPE thus plunging the country into a vortex of self – destruction. In this backdrop, this article attempts to examine whether Mahinda Rajapaksa (MR), between 2005 and 2015 as well as Maithripala Sirisena (MS) inconjunction with Ranil Wickremesinghe (RW), between 2015 and 2019, as FPEs, were successful in grasping systemic stimuli, hence exercising a pragmatic foreign policy. The authors shall further discuss the above with a particular emphasis on Sri Lanka's relations with the United States (US), China and India between 2005 and 2019 amidst their great power play in the theatre of the Indian Ocean. Furthermore, this research shall attempt to examine whether leader perceptions are the sole determining factors of a foreign policy which alternated between pro – China and pro – West. This is a qualitative case study which involves the deductive method. The authors will analyze both primary and secondary data in the adoption of a qualitative approach. The research will derive its propositions from Neo – Classical Realism in the discipline of international relations, particularly in analyzing the correlation between foreign policy and the domestic intervening variable of leader images in foreign policy making of Sri Lanka.

Keywords— Sri Lanka, Foreign Policy, Mahinda Rajapaksa.

Introduction

Ronald Reagan, welcoming J. R. Jayawardene (JR) in 1984 acknowledges the paramount importance of non – alignment for a buffer state like Sri Lanka. In proposing the toast at the State Dinner hosted for JR, Reagan opined that, "Mr. President, we understand Sri Lanka's choice, as a small developing country, to remain non – aligned in matters of foreign policy. We respect genuine non – alignment… Your visit has undoubtedly strengthened the bond between our two countries, and it's laid a basis for even closer, more cooperative relations between Sri Lanka and the United States in the future…. And finally, Mr. President, I'd like to thank you again for the elephant – [laughter]…. The elephant happens to be the symbol of the President's political party and by coincidence – [laughter] – We happen to be all that smart [laughter]." (Reagan, 1984) He also jokes about the baby elephant, a gift from the people of Sri Lanka to the people of the US. The elephant is the symbol shared by both the Republican Party of the US and the United National Party (UNP). The latter is identified with a pro – West policy *vis-à-vis* pro – China policy of the Sri Lanka Freedom Party (SLFP). These contrasting foreign policy orientations of the two major political parties in Sri Lanka demonstrate the fact that strict adherence to either non – alignment or neutrality is literally impossible and may not coincide with the hopes, aspirations, and national interests of Sri Lanka. Albeit political leaders, through their election manifestos, indicate that their government, if elected will adopt a non – aligned policy, global political dynamics coupled with the perceptions of the FPE will

ultimately determine Sri Lanka's international relations.

Despite the lack of any major significance, this South Asian nation has been the cynosure of regional and international politics. From Wiki – leaks to Hillary Clinton's controversial emails, and from the controversial lotus tower in the heart of Colombo, to the United Nations Security Council (UNSC), and from Panama Papers to the Trans Pacific Partnership (TPP), Sri Lanka has surfaced and resurfaced multiple occasions for numerous reasons. Moreover, inroads are constantly being made by the US, China, and India into this strategic *entrépot*. In this backdrop it is credible to deduce the fact that the geostrategic importance of Sri Lanka outweighs its demographic and economic limitations.

In such a context, the head of state as the FPE of the country is entrusted with the duty of formulating a robust foreign policy while carefully calculating the country's trajectory through the murky waters of global politics amidst external pressures and stimuli. Hence the primary issue is whether the said FPE will successfully grasp such signals from external parties and engage in foreign policy making. It is of utmost importance for the FPE to carefully calibrate the tools of foreign policy where failures would expose the state to international and regional political threats. This research shall therefore focus primarily on whether the Rajapaksa administration between 2005 and 2015 and the Sirisena – Wickremesinghe administration between 2015 and 2019 were successful in comprehending external signals hence orchestrating a pro – China and a pro – West policy respectively.

This research is a qualitative case study which involves deductive method. In the adoption of a qualitative approach, this study will analyze primary data (primarily from archival sources, speeches of leaders, public reports, Treaties and other international agreements, and diplomatic reports) and also amalgamate facts from secondary sources (publications, records, research reports, journal articles, and newspaper reports). Neo – Classical Realism further facilitates this research for a structured focus comparison, which is in this

research, the primary focus will be on one policy response; pro – West *vis-à-vis* "China pivot" or "pro – China policy". This research will derive its propositions from the Neo – Classical Realist theory in the discipline of international relations, particularly in analyzing the correlation between foreign policy and domestic intervening variables in the foreign policy making of Sri Lanka. In applying Neo – Classical Realism, the study shall examine the relevancy of leader images out of the following four domestic intervening variables: leader images / leader perceptions; state – society relations; strategic culture; and domestic institutions (Ripsman, Taliaferro & Lobell, 2016) which shall facilitate in a critical analysis of Sri Lanka's foreign policy orientation between 2005 and 2019.

The Neo – Classical Realist theory has become more relevant in the light of Islamic State of Iraq and Syria (ISIS) inspired Easter Sunday attacks in Sri Lanka on 21st April 2019, and the 2019 Presidential election. Hence the paper will focus primarily on establishing a causal link between a society plagued by chaos or anarchy, with leader images in Neo – Classical Realist theory. In addition, this study shall further analyze the involvement of the Federal Bureau of Investigation (FBI), the International Criminal Police Organization (Interpol), and other foreign intelligence services in Sri Lanka in the aftermath of the Easter Sunday attacks. In addition, this research may also assist in explaining how growing insecurity within the borders of Sri Lanka had given birth to a fear psychosis in the minds of ordinary Sri Lankan citizens which was reflected through the election of a war – time hero, Gotabhaya Rajapaksa (GR) as the President. Even Robert O. Blake Jr., one of the former US ambassadors to Sri Lanka and now the senior director (India and South Asia) of the McLarty Associates, delivering a speech at the Bandaranaike Memorial International Conference Hall (BMICH) on 08th May 2019 emphatically emphasized that "the incumbent government should establish a high – level group of technocrats similar to the one existed when Gotabhaya Rajapaksa was the defence secretary, to prevent terror attacks in the country". (Blake, 2019) Moreover these brutal attacks also shed light into the dilemma confronted by Sri Lanka as a buffer state in the

milieu of US – China competition for regional dominance. Peter Koenig in "*Sri Lanka: Candidate for a New NATO Base?*" discloses that the US may exploit the void created by the security deficit in Sri Lanka by establishing a NATO base in this strategic *entrépot*. (Koenig, 2019)

The period of 2005 – 2019 is of cardinal importance, particularly due to the security challenges confronted by Sri Lanka since the *dénouement* of the protracted conflict in 2009. The relevance of the time period of this research is further heightened due to the extensive use of hard power by the US and India in influencing the external strategy of post – conflict Sri Lanka.

Neo – Classical Realism

Neo – Classical Realism can be interpreted as, "an approach to foreign policy analysis that seeks to understand international politics by taking into account the nature of the international system – the political environment within which states interact. Taking Neo – Realism as their point of departure, Neo – Classical Realists argue that states respond in large part to the constraints and opportunities to the international system when they conduct their foreign and security policies, but that their responses are shaped by unit – level factors such as state – society relations, the nature of their domestic political regimes, strategic culture, and leader perceptions". (Ripsman, 2011).

In addition, Fareed Zakaria in "*From Wealth to Power: The Unusual Origins of America's World Role*", in support of Neo – Classical Realism has pontificated that, "the systemic account of world politics provided by structural realism is incomplete. It needs to be supplemented with better accounts of unit level variables such as how power is perceived, and how leadership is exercised". (Baylis, Smith & Owens, 2008) Zakaria has introduced the idea of state strength into his theory of state centered – realism where state strength is defined as "the ability of a state to mobilize and direct the resources at its disposal in the pursuit of particular interests". (Ibid.) State strength therefore indicates of state power, which "is that portion of national power the

government can extract for its purposes and reflects the ease with which central decision – makers can achieve their ends… state centered realism, maintains the logic that capabilities shape intentions, but recognizes that state structure limits the availability of national power". (Zakaria, 1999) With regard to intervening variables, Stephen Walt has remarked that the causal logic of Neo – Classical Realism "places domestic politics as an intervening variable between the distribution of power and foreign policy behaviour". (Walt, 2002)

Leader Perceptions

Neo – Classical Realists recognize this variable to be of cardinal importance in foreign policy decision – making of a state. At the epicenter of this variable is the individual who is vested with the discretionary power of determining the foreign policy trajectory of his country. This may comprise of the President, Prime Minister, Foreign Minister, the cabinet of ministers, ministerial advisors, and diplomats who represent either the executive or the legislature hence positioning them strategically at the very heart of foreign policy making of the state. These FPEs are empowered by way of legal instruments such as the constitution or any other legislation to formulate and implement the foreign policy. FPEs are vital to this research due to the fact that their core values, cognition, attitude, beliefs, and images have a direct impact on their foreign relations. In addition, the FPE must be conscious and attentive to grasp signals of the international society in order to construct a coherent and a prudent foreign policy without constant fire – fighting. Moreover, this variable also gives insight into how the FPEs process information, what they put attention to, what they ignore, and how they understand signals, information and events. (Ripsman et al., 2016) Moreover "master beliefs" of the FPE also have a direct impact on the foreign policy making since according to Alexander George and Ole Holsti such beliefs are sacrosanct for the FPE which also form the bedrock for his foreign policy trajectory. These beliefs are intrinsically ingrained in the thick skull of the FPE and in most occasions will form the guiding principle for his decision despite expert advice to the

contrary. FPE's master beliefs involve three elements such as philosophical beliefs about politics, instrumental beliefs about the best strategies to achieve one's interest, and images of one's enemy on oneself. (Ibid.) For instance, MR as the Executive President in 2005 advocated a strict pro – China policy disregarding advice of his chief diplomat, Mangala Samaraweera, when the latter was MR's Foreign Minister during the first term. Samaraweera, regarded as an ardent supporter of a pro – West policy was consequently fired by Rajapaksa for insubordination. A parallel incident occurred during the Sirisena – Wickremesinghe administration in 2015, where RW as the Prime Minister, took independent foreign policy decisions according to his personal agenda, while keeping MS, who was the Executive President and the FPE, in the dark. RW is a liberal minded politician and therefore his clandestine moves were deliberate and concrete. Moreover, Jeffrey Taliaferro enunciates, that leaders do not accept loses of their state's relative power easily, and often invest more into failed foreign policies in an attempt to regain losses which can be militarily and diplomatically harmful to the country. (Ibid.) Hence the FPE may be influenced by the elements of power, the distribution of power, the mechanics of power, and prestige.

The leader image was the dominant variable during the Rajapaksa administration from 2005 to 2015. Recognized as a Sinhala Buddhist nationalist leader, MR won the hearts and minds of the Sinhala Buddhist majority consequent to his military victory over the Liberation Tigers of Tamil Elam (LTTE) in 2009. He also was born to a well – known political family in Sri Lanka of which his father and uncle were leading politicians. Rajapaksa was practicing law as an Attorney – at – Law prior to his career in politics, hence he is sensitive to the changes in the systemic milieu. MR's appearance in Sri Lanka's national dress with the earthy brown shawl was compelling attractiveness that inspired the devotion in the Sinhala Buddhists who elected him twice as the Executive President. Albeit Jeff Smith in his article "*Sri Lanka: a test case for the free and open Indo – Pacific Strategy*", characterizes the Rajapaksa

dynasty as, "far from Jeffersonian democrats, but neither are they totalitarian dictators. Nor are they mere Chinese puppets. Rather they are Sri Lankan nationalists. They would likely welcome – perhaps even prefer – billions of dollars in US investments too". (Smith, 2019) However MR perceived signals sent from Geneva and Washington as inimical to Sri Lanka's sovereignty and national interest. Machinations of the West in chastising the Rajapaksa administration on human rights and war crimes allegations consequent to the defeat of the LTTE in 2009, were grasped by MR in a negative sense hence prompting him to establish a strategic cooperative partnership with China. Beijing's unwavering support at the UNSC and theUnited Nations Human Rights Council (UNHRC) and continued financial and military assistance were also perceived by MR as indicative of signs of a concrete nexus. This empowered the Rajapaksa administration to practice a pro – China policy albeit non – alignment was advocated in his election manifesto and in his speeches. This intrinsic China tilt in MR's foreign policy even resulted in the dismissal of his first Foreign Minister, Mangala Samaraweera who encouraged more relations with the West. As the FPE, MR was the ultimate authority on foreign policy making and subsequent Foreign Ministers either performed their functions as mere advisors or as monitoring ministers of Sri Lanka's diplomacy. Rohitha Bogollagama and Professor G. L. Peiris enhanced diplomatic dexterity and the latter was the chief diplomat when Sri Lanka was confronted with the human rights issue. Professor Peiris was a distinguished Oxford scholar and a legal luminary whose legal knowledge was instrumental in deflecting such false allegations. Hence it is evident that MR harboured master beliefs and fixed China centric foreign policy solutions to foreign policy challenges encountered by Sri Lanka. He exercised a significant degree of autonomy on foreign policy making and was "The FPE". It must be noted that this period marked a significant milestone in Sri Lanka's foreign policy due to its strong connection with Beijing. In addition to MR, even Gotabaya and Basil Rajapaksa were also thought to have a direct involvement in foreign policy decision making. Therefore, the Temple Trees worked

in conjunction with the Ministry of External Affairs, the Ministry of Defence and Urban Development and the Ministry of Economic Reform.

The Sirisena – Wickrememsinghe administration's foreign policy was as eccentric as was its administration of the country. The government was paralyzed with decision – making gridlocks as a result of a power struggle between the President and the Prime Minister. Sirisena's lack of experience in foreign policy making was reflected through his eccentric conduct in the said field. Albeit he was conscious of the domestic milieu given his experience as a farmer and a political career of more than 15 years, Sirisena was clueless with regard to foreign policy matters. According to the constitution of Sri Lanka he was the FPE but failed to advocate a robust foreign policy. Making the maximum use of this vacuum, RW as the Prime Minister and Mangala Samaraweera as his Foreign Minister conducted a pro – West foreign policy while marginalizing Sirisena. FPE in this context was undoubtedly RW and his Foreign Minister while the President was dormant with almost zero participation in foreign policy making except in certain instances where the latter vetoed certain foreign policy decisions of RW. Sri Lanka experienced a seismic shift in its foreign policy from pro – China to pro – West where RW's liberal ideology was very much in play. RW was a nephew of JR hence inherited the leadership of the UNP. Equipped with a law degree from the University of Colombo, RW intended to promote liberal ideals such as democracy, justice, equality, and human rights. He also had very close global connections with like – minded investors and politicians which included the billionaire investor George Soros. RW and Samaraweera made certain foreign policy decisions without the concurrence of the President and the cabinet of ministers. Such decisions were primarily aimed at extricating Sri Lanka from China's orbit while embracing Washington. Although his speeches recognized the rise of China in the contemporary context, RW as the FPE during the Sirisena administration, orchestrated a foreign policy which catered to the demands of the West which also had a detrimental effect on Sri Lanka's sovereignty and territorial integrity.

Leader perceptions have had a profound impact on Sri Lanka's foreign policy trajectory between 2005 and 2015 as explained above. It is evident that the FPE plays a vital role in policy formulation and decision making. Attached to such inherent powers, which are ensured by the constitution of Sri Lanka, are charisma of the leader, master beliefs, ideological sensitivities, and the ability to grasp signals of the international society with surgical precision.

Rajapaksa's and Sirisena's Foreign Policies

Sri Lanka's foreign policy orientation has undergone dramatic and unprecedented transformation especially since the *dénouement* of the protracted conflict in 2009. It's ascendance in the international arena, as the shining example of a state which had successfully exercised military power in defeating the armed wing of a terrorist organization, not only made her the cynosure of Indian Ocean security and strategic studies, but also of south Asian foreign policy studies, consequently attracting the interest of the most powerful and influential states in the world. Sri Lanka's dependence on Chinese military and financial assistance during the latter stages of the conflict, and the continuing dependence on Chinese loans in a post war context have invited the attention of Harvard and Cambridge scholars in the discipline of international relations thus resulting in the production of a plethora of research and literature. Moreover, the gradual transition from a non – aligned country which maintained cordial relations with both the US and China, since the collapse of the Soviet Union (USSR), to a state, practicing a policy alternating between strict pro – China and pro – West, has further complicated the study of Sri Lanka's foreign policy. A new generation of international relations experts who study this tectonic shift in Sri Lanka's foreign relations reckon that the effect is not spontaneous and can be attributed to a multitude of reasons.

Jeff Smith in "*Sri Lanka: A Test Case for the Free and Open Indo – Pacific Strategy*" opined that "the Rajapaksas do not seem inherently anti – American – Basil and Gotabaya have homes in

the US… As president, Mahinda initially sought military aid and investments from America but was largely shunned and sanctioned over credible accusations of misconduct and gross human rights violations during the war with the Tamil Tigers". (Smith, 2019) This signal from the West was pecieved by MR as inimical to national interests of Sri Lanka hence he tilted towards China's orbit seeking much needed financial assistance and political security at international fora. China has surpassed the US and Japan and other traditional donors to Sri Lanka while dwarfing the involvement of India, the Middle Eastern countries and the European Union (E.U.). China has also been unreservedly supporting Sri Lanka in confronting diplomatic challenges and has further been strengthening military and defence ties. "When the US ended direct military aid in 2007 over Sri Lanka's deteriorating human rights record, China leapt into the breach, increasing aid to nearly $1 billion to become the island's biggest donor, giving tens of millions of dollars' worth of sophisticated weapons, and making a free gift of six F-7 fighter jets to the Sri Lanka Air Force. China encouraged its ally Pakistan to sell more arms and to train pilots to fly the new planes". (The Independent, 2010) In addition "government data show that in 2009 China was, in terms of commitments, Sri Lanka's biggest aid donor, with $1.2 billion out of a total of $2.2 billion offered – hardly a huge amount for China. The Board of Investment reveals it is the biggest investor, too. Chinese companies have been investing in electronics, infrastructure projects, garment – making, and much else". (The Economist, 2010) Moreover, Robert D. Kaplan in his book "*Monsoon*" reckoned, "one diplomat told me that the West should ostracize the Rajapaksa regime and not worry about it becoming a linchpin of Chinese great – power strategy. As he saw it, the hundreds of billions of dollars of Chinese money invested in the US economy was more central to American interests than one more Chinese – built port in the Indian Ocean which, in any case, was of greater concern to the Indian and Japanese navies than to America's. Furthermore, Sri Lanka's Burma – trending regime was simply too corrupt and too incompetent in other spheres to last, despite its battlefield successes". (Kaplan, 2010)

It is coherent to conclude further that the Rajapaksa administration's tilt towards China was primarily due to the war crimes path pursued by the US, Canada and the United Kingdom (U.K.). Albeit being the immediate neighbor and the big brother, Sri Lanka may also have many reservations in choosing India over China for economic and military assistance. India sponsoring and training the LTTE, and providing financial assistance to the banned terrorist organization, India's federal system and its impact on Central government's independent decision making capability, India playing a muted role during the latter stages of the conflict in 2009 which prompted Sri Lanka to seek Chinese and Pakistani military assistance, and the hostile role played by the South Asian Titan in the UNHRC in contravention to South Asian solidarity, have pushed Sri Lanka more towards China. Undoubtedly Sri Lanka's relations with the West were deteriorating rapidly under the Rajapaksa administration. Mahinda Rajapaksa's pro – China policy has fixed Sri Lanka's foreign policy in a uniformed direction. Canada protesting against Sri Lanka hosting the Commonwealth Heads of Government Meeting (CHOGM) in 2013, the U.K. calling for an international investigation into war crimes committed in the latter stages of the conflict, the US relentlessly pursuing a biased approach against Sri Lanka at the UNHRC, and the E.U. depriving Sri Lanka of the GSP+ are tangible evidence to suggest that Sri Lanka's relations with the West were at a low ebb during the Rajapaksa administration.

Since the fall of Rajapaksa in 2015, the Sirisena – Wickremesinghe administration made rapid progression in recalibrating MR's pro – China policy to a pro – America foreign policy with the ulterior motive of alienating Sri Lanka from China's sphere of influence. Priority given to such an eccentric move was reflected through Sirisena's foreign policy commitments during his first 100 days in office. "The Sirisena administration has shown no hesitation in changing the pro – China policy of Rajapaksa while also looking to repair the damage done to Colombo's ties with the United States, India, and the European Union. The temporary suspension of the Colombo Port City Project was one of the

initial moves of the new administration". (The Diplomat, 2015) Moreover bilateral relations between the US and Sri Lanka were strengthened with John Kerry's visit to the latter. This visit by the Secretary of State a week after elections, is sufficient evidence to deduce that America had begun to make strategic inroads into this South Asian *entrêpot*. Such a carefully calibrated move by Washington also indicates growing influence of the US in the Indo – Pacific region which is primarily aimed at diluting the influence of the rising dragon in the Indian Ocean Region (IOR). Kerry's visit was a watershed event in Sri Lanka's foreign policy history since it was "the first visit by a Secretary of State of the United States of America in 43 years. We also had a cabinet – level visit of Samantha Power last May, and of course many other visits by high – level officials of the State Department". (US Embassy in Sri Lanka, 2016) This visit was further followed by another visit of a "Director level" delegation comprising of Assistant Secretary for South and Central Asian Affairs, Nisha Biswal, and Assistant Secretary for Democracy, Human Rights and Labour, Tom Malinowsky, a week after elections. Therefore, America's interest in Sri Lanka has not been diminished but has augmented and above facts are sufficient evidence to suggest that Washington will utilize its hard power capabilities through the UNHRC to pressurize Sri Lanka. Unlike the Rajapaksas who were suspicious about the machinations of the West, Wikremesinghe accommodates American presence in Sri Lanka. As indicated above, RW was a nephew of JR, the 1st Executive President of Sri Lanka. The latter was nicknamed as "Yankie Dickie" because of his special relationship with Ronald Reagan and his pro – American tilt in the 1980s. Wikremesinghe was entertained by George W. Bush in July 2002 when the former was the Prime Minister of Sri Lanka from 2001 – 2004. As a consequence, RW allowed Sri Lanka to be used as a transit point for the Central Intelligence Agency's (CIA) extra – rendition programme in 2003. Given such links with Washington, the Sirisena administration hurtled towards America's sphere of influence, spearheaded by RW.

In addition, unlike the Sirisena administration, MR provided a *carte blanche*

to Chinese nuclear submarines to dock in the Colombo port. Conversely, the Sirisena administration, imposed restrictions on Chinese submarine visits to Colombo from the very inception of his term as President in 2015. Moreover, the Sirisena – Wickremesinghe administration opened the strategic port of Trincomalee to the state-of-the-art Nimitz class aircraft carrier, USS John C. Stennis. China's disappointment and frustration with this new administration was made visible through former Chinese ambassador to Sri Lanka, Yi Xianliang, when he addressed the media criticizing certain comments made by Sri Lanka's Finance Minister on Chinese loans being "expensive" (The Hindu, 2016). The ambassador further reckoned that; the Chinese companies had incurred losses due to the delay of the Colombo Port City Project. Conversely, although RW had made many high-level state visits to China and had praised Chinese investments in Sri Lanka through his speeches on the global stage, his conduct as the Prime Minister under the Sirisena administration raised a multitude of rhetorical questions. Since the election of the Sirisena administration, China had been skeptical about the permanency of the "strategic cooperative partnership" established during the Rajapaksa administration. Unhindered access granted to Chinese submarines during the former regime has now come to an abrupt halt. When a senior Sri Lankan Navy delegation was entertained on the US Navy's aircraft carrier Carl Vinson a few days before Kerry's visit, "the new Sri Lankan government declined permission for Chinese vessels to dock in the country". (The Economic Times, 2015) Therefore it is prudent to deduce that Sri Lanka's foreign policy trajectory under the Sirisena administration was determined by RW and not Sirisena, despite the latter being the Executive President of the country. As a consequence, Sri Lanka tilted towards the US while freezing relations with China.

Sri Lanka's diplomatic relations took another twist after the ISIS inspired Easter Sunday attacks on 21st April 2019. The President and the Foreign Minister embarked on two different foreign trips in the aftermath of the attacks. This was in the backdrop of a constitutional crisis, and government

dysfunction where Presidential decisions were largely disregarded by the legislature led by RW. Sirisena's visit to China and Tilak Marapana's meeting with Mike Pompeo in Washington clearly reflect duplicity of Sri Lanka's foreign relations under the Sirisena administration. While China pledged financial assistance to enhance Sri Lanka's counter – terrorism capacity building to safeguard national security and stability (Xinhuanet, 2019) the US was determined to hasten the signing and the implementation of the Status of Forces Agreement (SOFA) and the Acquisition and Cross Servicing Agreement (ACSA). "When Western intelligence personnel surged into the country in the wake of the Easter terror attacks, it was against the backdrop of military ties with the US that had been steadily deepening since 2015, with multiple ship visits, training exercises and most recently an operation to ferry supplies to a US aircraft carrier in the India Ocean, using Sri Lanka's ports and airport... Given the geopolitical tensions in the Indian Ocean region, one of the US's goals in getting Sri Lanka to sign military agreements with the US would be, presumably, to preempt China from extending its footprint by locking Sri Lanka into such agreements. Pledging commitment to a 'shared goal of a free and open Indo – Pacific might then be decoded to mean 'jointly resisting Chinese influence in the region'". (The Island, 2019) The Sirisena – Wickremesinghe administration has seem to achieve their aspiration of transforming Rajapaksa's pro – China policy into a pro – West policy by strengthening economic and military ties with Washington while distancing Beijing. The above facts suggest that although financial assistance of China to Sri Lanka in a post – conflict context is of paramount importance, machinations of the West and India's security concerns trump over Sri Lanka's interests. At the end of his 5-year term, MS declared that he will not run for the second term and extended his support to GR, the presidential candidate of the Sri Lanka Podujana Peramuna (SLPP). As the former secretary of defence under MR and as an individual with no prior experience in the political sphere, GR successfully capitalized on the fear psychosis of the public since the April Easter Sunday attacks in 2019. As a consequence, GR won the election against

Sajith Premadasa who the main contender from the UNP. Foreign policy experts was believe that, since GR is a Rajapaksa, the country will again oscillate back to a pro – China policy thus alienating the US and India.

Conclusion

Accurate perception of systemic stimuli by the FPE is of cardinal importance in determining the foreign policy trajectory of a country. Especially for a small buffer state like Sri Lanka, grasping the signals from Washington, Beijing, and New Delhi are of paramount importance, failing which, the country will plunge into a vortex of self-destruction. The *raison d'être* of MR's pro – China policy between 2005 and 2015 is to signal the West that China will remain a strategic partner and a bosom friend despite Sri Lanka being ostracized by the West. The Rajapaksa administration seems to have fully grasped the pressures and the machinations of the West and the transformation of the international society manifest through the relative decline of the US, hence advocating a pro – China policy. As a result, the said administration was successful in securing much needed financial support and investments for mega projects, and political support at the UNSC and UNHRC hence demonstrating Rajapaksa's diplomatic dexterity. Conversely, the Sirisena – Wickremesinghe administration between 2015 and 2019 failed to comprehend the said systemic changes. As a consequence, their pro – West policy failed to detach Sri Lanka from the human rights orbit of the West. Furthermore, despite international exposure, the Sirisena administration failed to secure much needed foreign investment thus pushing the economy towards recession. The public's displeasure on Sirisena – Wickremesinghe administration's foreign policy failures were also reflected through the election of GR as President in 2019.

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The Role of Sri Lanka's Private Security Sector in Assisting the Nation During Pandemics and Natural Disasters

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Abstract– The role of private security companies (PSC) has become ever more significant in the 21st century as the world faces increasingly complex threats which require holistic and multidimensional solutions. Non-traditional security threats such as natural disasters and pandemics which could imperil the very survival of humanity have become a focal point in contemporary security studies and analysis. Many international organisations and nation states have deployed private military companies to provide a wide range of security services in fulfilling and achieving much broader strategic objectives. Private security companies are certainly not a substitute for a military and should not be considered as one. However, private security companies play a fundamental role in reinforcing the national effort during times of natural disasters, pandemics and national crisis situations. In the wake of the recent COVID- 19 pandemic which has plagued the world, the importance of private security companies as an effective force in preventing the spread of the virus and providing assistance during national crisis situations has been recognised through many success stories which have transpired from across the globe. This paper will explore how PSCs have become an important part of the civil-military relations and homeland security paradigms. This paper argues that PSCs in Sri Lanka have a fundamental role to play in order to meet the demands of a new strategic environment and new sources of non- traditional security threats.

Keywords: *Private Security, Homeland Security, Civil-Military relations, COVID-19, Pandemic, Natural Disaster*

Introduction

Over the past decade, Private Security Companies have become an essential component which is playing a pivotal role in assisting nation states and organizations to meet complex and constantly shifting global security challenges. With non-traditional threats defining the global and national security landscape, the concept of security has evolved from its traditional roots of being solely state and military oriented. Security now consists of a much broader spectrum which includes the safety of individuals, communities and organizations which are a fundamental part of the internal national security framework.

In order to meet the contemporary security challenges, PSCs from across the globe offer a variety of services which have been provided to nation states, international non-governmental organizations, multinational business entities, individuals and communities which is now a trend that is reshaping the global security environment (Avant, 2009). Following the end of the Cold War there has been a steady increase in the number of PSCs and an increase in number of personnel joining these organizations due to the lucrative career prospects for ex-military servicemen. The PSCs provide a range of services which consist of providing threat assessments, providing unarmed/ armed security personnel including static guards, providing armed escort convoys in high risk areas, infrastructure security, maritime security, logistical support and even VIP security etc. Since every individual has an inherent right to life and the right of self-defense, the primary function of a PSC is to provide safety and security to their client while

minimizing the risk of any imminent physical dangers.

With the rise of new global security challenges stemming from non-traditional threats such as natural disasters, pandemics and humanitarian crisis situations, many countries including international non-governmental organizations have used the services of PSCs to assist in humanitarian disasters. Today, in many states the number of private security personnel exceed the number of some national police forces as a result of the private security sector experiencing an exponential growth over the years.

Bhagya Senaratne, a senior scholar from the Faculty of Defence and Strategic Studies, General Sir John Kotelawala Defence University has comprehensively analysed and highlighted the significance in advancing human security centred policies in facing multitude of complex non-traditional security threats which transpire in today's world. Senarathna has written that, "Sri Lanka is no longer directly threatened by traditional security threats, it is futile for the country to implement state-centric policies. Sri Lanka is however, being increasingly challenged by various non-traditional security threats such as environment - inclusive of climate change –, food and health, youth unemployment to name a few. Therefore, it is imperative for Sri Lanka to focus on implementing policies which address non-traditional security threats, with the 'human' at the core of its policy formulation" (INNSL, 2018).

With the rise of such non-traditional security threats, many states around the world have adopted holistic and integrated approaches to counter threats to human security. Many international non-governmental organizations and states have used PSCs on countless occasions for humanitarian crisis situations and natural disasters. The government has a responsibility to adopt measures which include the private security sector in their designs to advance human security centered policies which will help mitigate disaster and pandemic situations more effectively. The recent COVID-19 pandemic has proven that PSCs across the globe have become an indispensable part of the national effort in preventing the spread of the virus and helping nations maintain resilience. Sri Lanka has a booming private security sector which has employed thousands of personnel which includes

a large number of ex-servicemen and retired police officers. PSCs in Sri Lanka can assist the state by contributing towards achieving resilience during crisis situations while strengthening human security.

Sri Lanka's Private Security Sector

As a result of the rapid growth in the private security industry in the country, the Sri Lankan government decided to regulate PSCs in 1992 by enacting the Regulations of Private Security Act No. 45 of 1998 (De Alwis, 2020).

The origins of Sri Lanka's private security sector can be traced back to 1956, when two school leavers, Newton Senarat Dassanayake and Fuard Uduman who had been rejected by the Ceylon Police Force at the time established what eventually evolved into an industry that provided employment to thousands in the private security sector (Daily Mirror, 2015; De Alwis, 2020; Business Today, 2016).

Dassanayake and Uduman who are considered as the pioneers in the private security sector in the country, initially provided security with two guards clad in khaki coats and equipped with a torch, batons and whistles to cover Second Cross Street in Pettah. The duo later expanded to provide security to some of Sri Lanka's renowned commercial establishments and also went on to provide security to the Colombo Port. At the time cat burglars and thieves were able to enter into business establishments through the roofs and the burglars at the time had devised creative ways of conducting their robberies. Due to the crime rates soaring from robberies, the khaki clad watchmen guards were hired to cover the entire Pettah shopping complex. The local police authorities praised the venture initiated by Dassanayake and Uduman as they were able to minimize the local crime rate by providing a service which is a fundamental human need. The company established by Dassanayake and Uduman eventually grew into the industry it is today.

Based on the Sri Lanka Labour Demand Survey 2017 conducted by the Department of Census and Statistics, there were 45,316 vacancies for security personnel which is second to sewing machine operators in terms of demand in the job market (Sunday Observer, 2019). According to the Industrial Security Foundation, Sri Lanka,

over 70,000 security personnel are employed by registered security companies around the island.

The private security sector in Sri Lanka is represented by the Sri Lanka Security Service Providers Association (SLSSPA) and the Industrial Security Foundation, Sri Lanka (ISF). Both the SLSSPA and ISF have played a pivotal role in maintaining the standard of professionalism, efficiency and growth of the private security sector in the country.

Private Security an Emerging Paradigm

PSCs have become a significant part of the homeland security paradigm and it is an essential component in civil-military relations. Due to institutions of state no longer being able to cope with the vast amounts of multifaceted tasks alone, many non-state actors such as multinational organizations, non-governmental organizations, business entities and civil society groups are playing an influential role in assisting in key areas which support national objectives in order to confront complex security threats and challenges that are prevalent today.

As a result of the constantly evolving non-traditional security threats, the military is now sharing the battlespace with other actors, including those from the private sector and non-governmental organizations (NGO). Private-public partnerships in security have taken place in many cases with PSCs playing a role in strengthening internal security and further strengthening civil-military relations.

Many scholars have shed light on the complex nature of PSCs, which is characterised by a mix of public, private, civilian and military features (Abrahamsen and Williams, 2011). The Soldier and the State: The Theory and Politics of Civil-Military Relations (1957) authored by Samuel P. Huntington and Morris Janowitz's The Professional Soldier: A Social and Political Portrait (1960) highlights the evolution of global defence establishments and changers in traditional military functions which has been integrated with civil functions and private sector service personnel.

The concept of homeland security which is an emerging area of study within the civil-military spheres provides an understanding of the integrated and multidimensional security strategy which has been adopted by many

countries. The concept of homeland security took shape following the 9/11 terror attacks on the U.S., which eventually led to the government of President George W. Bush establishing the Department of Homeland Security which integrated many national securities and defence functions which deal primarily with internal security and non-traditional security threats. Homeland Security can be defined as a concerted national effort to ensure a homeland that is safe, secure, and resilient against terrorism and other hazards (DHS, 2010). The conceptualization of the homeland security revolves around the theme that the homeland security initiative combines a federal, state, local, and tribal government and private sector approach that requires coordination; homeland security can involve securing against and responding to both hazard specific and all-hazards threats; and homeland security activities do not imply total protection or complete threat reduction (Reese, 2013). Homeland security is an integrative concept that brings together domestic preparedness, response, and recovery efforts with respect to threats ranging from large-scale terrorism to natural disasters to pandemics (Morag, 2011).

Even though the U.S. Homeland Security strategy has certain shortcoming, it is certainly a concept which many states across the globe have adopted in a bid to maintain internal safety and security while sustaining resilience in the face of natural disasters and crisis situations. Within this integrated mechanism the PSCs have been given a crucial role in terms of providing assistance during humanitarian crisis situations and pandemics. PSCs are mostly employed with the oversight of the state actors and with a clear mandate to operate within a non-military capacity and within the sphere of providing support to achieve the overall strategic goals.

A majority of natural disasters, humanitarian crisis situations and pandemics are home-based and in order to be successful in developing a comprehensive strategy to minimize the impact of non-traditional security threats, the private security sector needs to be considered and given certain responsibilities which can be carried out in coordination with the relevant state actors. Within the framework of homeland security strategy, the private security guard posted at a facility or a business establishment is often the first responder and first preventer of a crime, terror plot or a disaster situation. Due to this vital

role private security personnel play, law enforcement agencies and military establishments are now building strategic public-private partnerships with PSCs. Public-private partnerships is a key factor which recognizes human needs and corporate interests which has now become intervened with certain internal security measures.

The phenomenon known as "deputizing," which encompasses the private sector, along with citizens and other organizations, serve as a force multiplier for homeland security purposes (Michaels, 2010). Jon D. Michaels (2010) writes that withing a framework of private-public partnership, private security personnel which currently outnumber police officers three to one in the U.S. can be deployed in a manner which would help law enforcement agencies to focus on their strategic and operational priorities while delegating certain functions. In certain instances, employing the services of PSCs can be financially beneficial for the government while it also helps saves time and money of the state agency by delegating specific activities during natural disasters and pandemic situations.

Civil society participation and focus on security of the citizen and society as key element of the emerging human security discourse is evident within the realms of humanitarian crisis management, emergency response and civil protection. On several instances, during natural disaster and pandemic situations PSCs are employed to act jointly with a range of state actors and INGOs. There is an increasing trend to delegate specific state responsibilities such as the security of critical infrastructure and assistance in humanitarian situations in peace support operations which has pushed PSCs further towards participating in civil-military cooperation roles.

PSCs Success in Combating Covid-19

There are several success stories of PSCs in their handling of natural disasters and the most recent COVID- 19 pandemic. PSCs have been outsourced to handle complex humanitarian emergencies in which the armed forces were assigned functions to work directly alongside civilian partners which is a phenomenon that has emerged in an age of human security threats.

During the lockdown periods as a result of the COVID- 19 pandemic, PSCs were tasked with certain functions performed by the police and in today's context private guards under supervision of state actors can perform certain functions which law enforcement agencies performed during emergency situations. Most private security personnel possess a previous law enforcement or military background which provides PSCs the added advantage of having a comprehensive knowledge on policing and security procedures at strategic, tactical and operational levels.

The PSC industry which has experienced exponential growth during recent times is currently employing an estimated 20 million private security workers worldwide and is expected to grow even further to $240 billion by 2020 (Provost, 2017; McCarthy, 2017)

According to a recent survey, there are an estimated 7 million private security workers in India which only has just 1.4 million police officers, while China has approximately 5 million private personnel compared to their police strength of 2.7 million (McCarthy, 2017).The U.S. has around 1.1 million private security personnel, while they have a total strength of 800,000 in their police force, followed by Brazil which has around 1.7 million private security personnel which is more than double their entire police strength (McCarthy, 2017). The demand for private security soaring and there is clear indication that security which was once the sole responsibility of the state has gradually shifted with the private sector directly being involved in individual and commercial safety.

In the recent war against the COVID-19 pandemic, private security personnel around the world are putting their lives in the line of duty in order to ensure safety and security to the people and organizations PSCs protect. Many PSCs have been deployed to assist the national effort to counter the pandemic and private security guards have now been recognized by many European states as an essential service for the contribution they are making in the fight against the pandemic which has claimed the lives of many engaged in the profession (CoESS, 2020). Some countries have even made use of the large number of private security personnel to assist the state in enforcing lockdown laws and assisting the local police authorities.

Private security personnel have been categorized as "workers exercising critical occupations" by the European Commission. In the U.S., The National Association of Security Companies (NASCO), which is the apex body of the American private security industry has praised security officers across the U.S. who are playing a crucial role in public safety amidst the COVID-19 pandemic (NASCO, 2020). The Prime Minister of Belgium and the National Director of the Portuguese Public Security Police also praised the PSCs for their contribution in their fight against the recent pandemic. The Spanish National Police also applauded the Spanish private security sector which has deployed over 100,000 guards in managing the COVID-19 crisis and supporting the Security Forces in the daily protection of people and property, in supermarkets, hospitals and other critical infrastructure.

New Zealand which has been one of the most successful countries in managing the recent COVID-19 outbreak listed their private security sector as an essential service after taking into consideration the tireless service private security guards are providing to keep the pandemic at bay by protecting communities, businesses and ensuring proper health and safety measures are followed. The New Zealand Security Association initiated a campaign to recognize the dedicated service provided by private security personnel who are engaged in the national effort to counter the Covid-19 pandemic.

China which has a private security force which is almost double the strength of their local police has entrusted the responsibility of controlling movements in urban communities across the country to private security guards (Chen, 2020). China has a relatively small state police force to provide local security to a large population. The private security sector in the country was used as a force multiplier to assist in their national drive towards preventing the spread of the pandemic.

In the Indian Union Territory of Puducherry, private security guards were given the responsibility to enforce the lockdown and ensuring social distancing was followed in public places. The Indian Union state decided to use private security personnel due to the shortage of manpower in the Puducherry Police and a request for assistance was sent to over 90 PSCs (Deccan Herald, 2020). Highlighting the vital role

of the private security sector in India, the country's Union Home Ministry in a letter sent to the most prominent private security industry bodies appealed to Indian PCSs not to lay off guards or deduct their salaries during the COVID-19 pandemic, taking into consideration the essential service they are providing (The Economic Times, 2020)

Conclusion

PSCs in Sri Lanka can play vital a support role during national emergencies, natural disasters and pandemic situations. In order to face the complex challenges and threats to human security, an integrated approach should be adopted. The philosophy of homeland security is driven by the fundamental principles of prevention, protection, and response and Minimize disruption and restore the functioning of critical infrastructure (Wickramasinghe, 2015).

Private security personnel should be considered as an essential service in Sri Lanka taking into consideration the frontline work they are engaged in and the tremendous national service the industry is providing. the private security sector functions not only as a unique career option for ex-members of the armed forces and former police officered, but also it has become an indispensable part in global security. The contribution PSCs can provide a state during natural disasters and pandemic situations are as follows below.

Identifiable main contributions the PSCs can provide the state during natural disasters are;

1. The security officers are supposed to make sure the prompt assistance to victims of the disasters.

2. Achieve rapid and effective recovery through search, rescue and emergency relief.

3. Private security is to provide immediate assistance to maintain life, improve health and support the morale of the affected population.

4.Work in collaboration and support the police, armed forces and disaster management agencies.

5. Security should know all the possible exits from the facility, evacuation routes, and be able to provide guidance on how large groups of people should navigate a disaster, even if there are

unexpected circumstances such as an obstructed exit.

6. Some security companies are able to provide Quick Reaction Force (QRF) to assist the state authorities during disaster situations.

Identifiable contributions PSCs can provide the state during the COVID-19 pandemic are;

1. Help the local authorities enforce lockdown laws act as a force multiplier for the police force.

2. Enforcing Covid -19 regulations and following recommended security procedures.

3. Officers are to work in collaboration with police, armed forces and health and medical officers to control the pandemic situation.

4. The presence of a security officer in uniform will act as a deterrent in preventing crime and other illegal activities taking place within the locality private security is provided. Pandemic situation does not stop burglaries, assault and other crime. Therefore, private security services can play a major role in preventing crimes during the pandemic situation.

5. In the event of an accident, the private security officers to sure the proper evacuation and control the virus transmit.

6. Trained security officer will be able to monitor volatile situations and take precautionary actions to safeguard and protect business establishments, factories, employees, customers and other infrastructure when an event occurs.

7. Assist the local authorities with CCTV and physical surveillance.

8. Some security companies are able to provide Quick Reaction Force (QRF) to assist the state authorities during pandemic situations.

In the end, the role of the security guard is to provide security, safety and to respond to changing situations. PSCs are a force multiplier and should be employed with clear operational guidelines and in subordination to state authority. In an era where national security is challenged by complex threats, Private security personnel can be used as the first line of defence for the state in overcoming the constantly evolving non-traditional security threats.

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Introduction of Nuclear Power Plants to Sri Lanka: National Growth and Security Perspectives

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Abstract- Nuclear technology is a vibrant application in the power and energy sector all over the world. At present more than 450 nuclear power plants (NPP) are contributing more than one-tenth of electricity generation all over the world. However, few concerned the use of NPP as their power source. Being a developing country, the energy demand in Sri Lanka is ever-increasing. Frequent power crises highlight the necessity of having reliable power sources to cater the base load of the country comfortably to achieve the national growth of the country. Nuclear power can be considered as one such alternative to introduce electricity mix for Sri Lanka. Other than the higher capital cost and complexity of technology, the nuclear safety, and security aspects are the other main concerns which negate the nuclear favour. Energy security is an element of national security and a pre-requisite of the development process of a country due to the nexus between national security and national growth.

Keywords: Nuclear, Security, National Growth

Introduction

Energy security is one of the major elements of national security. The stability of national security is essential for the steady growth of any country. US politician and senator Tom Allen emphasize the nexus between energy security and national security by stating that 'the national security of a country depends upon the energy security of that country'. The irresistible competition over the countries is mainly occurred due to the scarcity of energy. Accordingly, the assurance of energy security has become one of the important responsibilities of the government of that particular country.

Different types of energy sources are being used by humans since their beginning and this has been changed as per the availability of access to those resources. Accordingly, fossil fuels became the most popular source of power all over the world especially during and after the industrial revolution began in the 18th century. The energy requirement also exponentially increased all over the world and due to the scarcity and diminishing nature of non-renewable fossil fuels, the necessity of alternative power sources was highlighted. Renewable energy became a good competitor in these aspects. Cleanliness, low-cost maintenance capability, free or low cost for raw

materials were the main pros for most of the renewable energies such as hydropower, wind, solar, thermal and tidal or wave energy. However, there were many cons also about renewable energies such as unreliability, non-availability in large quantities, and higher capital cost.

The necessity of sustainability of the energy sector is of the utmost importance to gain and maintain steady and healthy economic growth in a country. As per the former Chief Executive of oil and energy company BP Mr. Anthony Bryan Hayward, it has become the biggest challenge in the world today to satisfying ever-growing energy demand in a sustainable way.

Being a developing country, Sri Lanka needs to concentrate on the country's future energy requirement. At present, the energy mix is consisting mainly of fossil fuels, hydropower, and a few amounts of solar, wind, and other renewable energy sources. Since Sri Lanka does not have a considerable amount of fossil fuel within her territorial limits, some experiments have found the possibility of having a considerable amount of fossil fuels in the Mannar area. Discussions are in progress to Commercialize Natural Gas discovery in the Mannar basin with the initiative of Cairn Lanka Pvt Ltd (Reuters, 2017). However, their quantities and whether they can be used adequately for industrial purposes have not been verified. Hence, it is of paramount importance to

find alternative sources which easily can be replaced with fossil fuels.

Despite various renewable energy sources added to the capacity mix of Sri Lanka, achieve the development targets and national growth has been shattered due to the incapability of available capacity to meet the baseload especially during dry season mainly from February to April in most of the years. This has been experienced in 2018 as well as 2019 creating an energy crisis in the country. The main aim of establishing of Sustainable Energy Authority in Sri Lanka (SEASL) by enacting the Sustainable Energy Authority Act No. 35 of 2007 of the parliament of the Democratic Socialist Republic of Sri Lanka is to pave the way for Sri Lanka to gain energy security by protecting natural, human and economic wealth. Embracing the best sustainability practices by generating energy indigenously and use them efficiently are the objectives of the inception of SEASL.

Introduction of Nuclear Power Plant (NPP) to Sri Lanka to cater to the baseload of the country has been discussed among the experts in relevant sectors in Sri Lanka from the beginning of this millennium. However, this has not been discussed adequately among the general public to become a debatable topic. Other than the financial constraints that could be a probable barrier, the unjustifiable fear over using nuclear energy is the main barrier to table this topic for discussion among the general public, and policymakers are too reluctant to take up the matter due to some reason. However, it is unfair to comment on acquiring nuclear energy to fulfill the energy requirement of Sri Lanka without examining the pros and cons of the use of nuclear energy in depth. The worthiness of examining the initiatives taken by GoSL to introduce NPP to Sri Lanka, the necessity of NPP, and its impact on national growth and security aspect of Sri Lanka were identified during preliminary studies. Hence, this research will focus on the introduction of NPP to Sri Lanka and its impact on national growth and security of Sri Lanka.

Methodology

General observation made during data collection process were utilized to develop a suitable mechanism to solve the security concern w.r.t. introduction of NPP to Sri Lanka. Due to the limited number of resource personnel, and lesser knowledge on the general public on subject, the research was carried out with referring the available resources, resource personnel, and case studies on the experience of other countries. Hence, a qualitative methodology with inductive approach was used to complete the research.

In-depth interviews, field notes and focus group interviews were used as primary data collection tools. Study on previous reports, research papers, publications and works done by the national committee to work on 19 infrastructure issues (introduced by IAEA to be solved before introducing NPP) were used as secondary data sources.

During preliminary interviews independent and dependent variables were identified together with interview guide. Accordingly, nuclear security and safety, energy diversity, reliability of energy source, availability of alternative sources were considered as independent variables whereas energy security was identified as the dependant variable. The impact of energy security over national growth and national security is considered as directly proportionate. Unstructured, semi-structured open-ended questions were mostly used during interviews. Those questions were subjected to evolve, reform or continues review while conducting research.

Focusing on objectives of the research, three research questions were derived in above chapters. Non directional wordy research questions were used to describe the situation rather than compare the groups or relate them with identified variables.

The main concern of the research was narrowed to the Sri Lankan scenario. However, some of the impacts to be evaluated considering the neighbouring countries or world scenario. For example, the environmental issues and its impact on security and concern of external actors such as states and non-state actors over such issues were studied to understand the direct and indirect impact of them over security and national growth.

A. Operationalization of Research

The data collection was carried out based on variables and research guide. Descriptive responds received were quantitative analysed using thematic analysis method. All the answers were coded and filtered to reduce unnecessary

data and analysed their content based on identified themes. This division of data helped to to derive conclusions and recommendations.

A method moreover similar to stratified sampling method was used to select the resource personals. The academia, IAEA/SLAEB members, CEB members The researcher entertained the freedom of altering the questions while conducting the research and particularly interviews considering the feedback and level of interaction on the relevant matter. As per the requirements that arise while analysing the data, the same interviewees were re-interviewed, or survey data has been recollected for better data analysis.

Factual data collected mainly from IAEA a WEA The accidents happened at Three Mile Island in the USA, Chernobyl in Russia and Fukushima in Japan studied in-depth to understand the security nexus with the individual incident.

Due to the sensitivity of the subject area and its impact on individuals, some of the reputed intellectuals, academia, and appointment holders preferred to express their opinion anonymously. The informtions which are highly sensitive and related with national security or personnel security were not published in this paper.

B. Research Design
Considering the literature available, the research gap was identified, and objectives were derived as per the research problem. Subsequently, the economic and security aspects were studied to realize whether the introduction of NPP to Sri Lanka is an impact on national growth and security positively or negatively. Accordingly, the recommendations were given to mitigate the negative impacts.

Discussion

A. Nuclear Safety and Security.
Nuclear safety is the main aspect when considering the introduction of NPP to any country. The attack on Hiroshima and Nagasaki during the latter part of World War II to conclude the war and its impact has deterred the world to be favour on the application of nuclear technology even for peaceful usages. More than the direct impact, the indirect impact on human being even many years after the attacks created a

distance among the general public and this technology.

1). Effect of High loss of Thermal Energy – The thermal efficiency of the nuclear power plant is only 33 % whereas the same thermal power plant is 40%. Two third of total energy production by the NPP is lost as heat. Due to this reason, NPP required a large amount of water with a sophisticated cooling system. Countries which are having a cool climate can use this excessive heat to heat their water system whereas Sri Lanka should think about this differently. The reason for the Fukushima NPP accident is the breakdown of the cooling system due to the flooding of the stand-by generator compartment. Hence, the connection between higher loss of thermal energy in the system and nuclear safety and security is evident.

2). Accidents and Lessons Learnt. - Considerably very minimum number of accidents have been reported related to NPP throughout history. The death reported or fatal injuries that happened due to those accidents are also very less compare to other alternative sources. As per the findings of Prof Mark J Perry, the reported death per one TWh due to nuclear is only 0.04 whereas the same due to coal is 101.0 deaths.

Figure 3. Deaths per TWh by Energy Source.
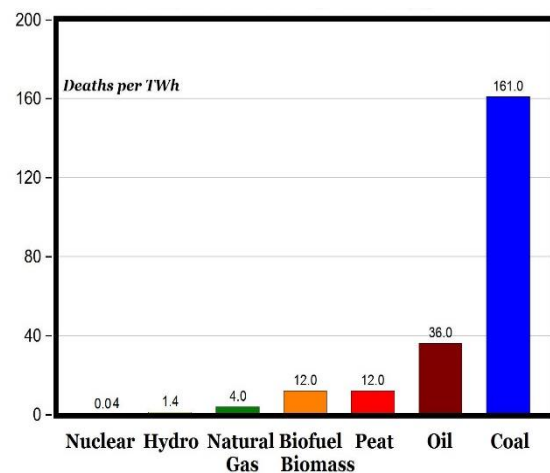*Source: Next Big Future by Professor Mark J Perry*

3. International Nuclear and Radiological Event Scale (INES). Lack of knowledge on the fatality of accidents, experience, and social influences such as films and TV series on nuclear disasters has exaggerated the fear of nuclear threat. To control it, IAEA has introduced INES in 1990 to create proper awareness and understanding of

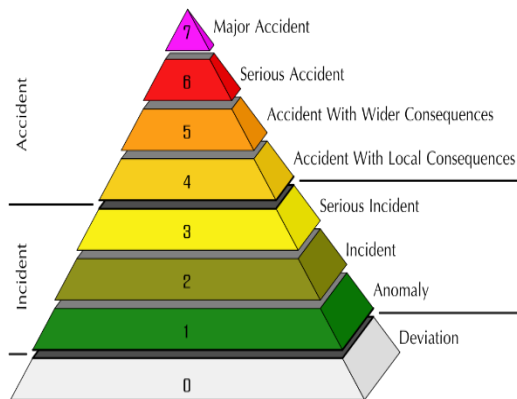the magnitude of nuclear/ radiological accidents (Speigelberg, *2008).*

Figure 2. International Nuclear and Radiological Event Scale
Source: IAEA, 2019

B. NPP and Security Nexus
The security aspects related to NPP are two-fold and can be distinguished as follows;

1). Nuclear safety, security, and its impact on National Security.

2). Use of NPP to ensure national security through energy security.

The above two are different aspects of the introduction of NPP and necessity to examine in both ends distinctively to have a holistic approach to security aspects w.r.t introduce NPP to Sri Lanka.

C. Energy Security through Proper Energy Diversity
Due to the instability of most of the energy sources, it is paramount important to make the capacity mix of a country with different energy sources. This may allow more assurance to the energy sector of a particular country. Crude oil price is more volatile and highly sensitive to international affairs and situation while renewable energies are depending on the climate situation. Hence, depending on such energy sources lonely may threaten energy security. NPP will provide more assurance to run with the baseload of any country with more reliability and sustainability. This may enhance energy security and same ensure national security and economic growth.

During drought season in 2018 and 2019, Sri Lanka had to face frequent interruption in electricity supply due to the reduction of power generation capabilities of hydropower plants. At present Norechcholei has become the main power producer for the country with 3 x 300 MW capacity. It was experienced sudden breakdowns more than 34 occasions as of May 2018 due to various reasons. Once it shut down, it takes nearly two days to add to the national grid.

Considering the above, the introduction of sustainable, reliable power sources such as NPP would be a better option for developing countries like Sri Lanka to achieve her national growth targets. If cheaper and reliable electricity is available in a country sufficiently, it would give many advantages including the following:

1). Easily attract investors including FDIs.

2). Living standards of individuals may increase with having the luxury to use electricity for comfort. This may increase efficiency.

3). Public transport can be developed with electric trains and busses reducing traffic jams in cities.

4). Productions of the country can be increased with a higher profit margin for manufacturers.

5). Can reduce the carbon footprint by using electricity for electric vehicles etc. (this benefit can be gain only by introducing non-fossil or low-carbon technologies as electricity sources)

All above are directly connected with the national growth of the country and they would be necessities to achieve sustainable development goals. WNA emphasized the requirement of this mix finding an optimal balance between the need for human development and the protection of the natural environment. They target 1000 GWe of new nuclear capacity to be added by 2050, so that nuclear would supply to be increased up to 25% of global electricity from the present share of 10% from world energy production.

D. Advantages of NPP over other Energy Sources
Many advantages can be identified with nuclear power over other energy sources. Some of them are as follows:

1). Higher Capacity Factor: The ratio of actual output over a period to its potential output (full nameplate capacity) considered as the capacity

factor. This means the efficiency and performance of a particular plant. Higher the capacity factor means lesser the energy wastage. The capacity factor of NPP is high as 92% and this s a very high rate compared to many other alternative sources. The CF of power sources in the USA as per the records of US Nuclear Energy Institution and US Energy Information
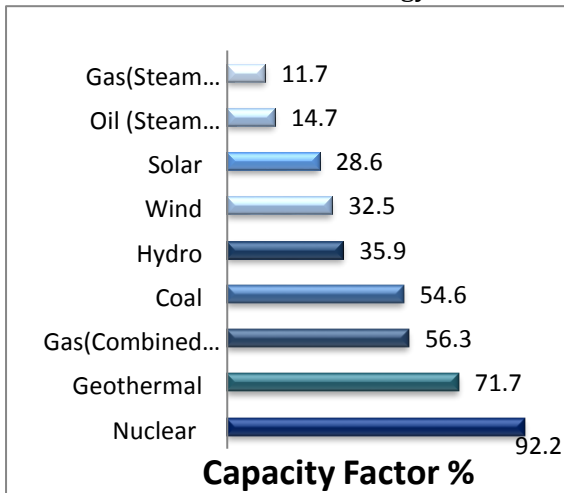
Administration are as follows:

Figure 4. Capacity Factor of Energy Sources in USA, 2015
Source: US EIA and NEI, 2015

2). *High Reliability.* The reliability of the power source is the utmost important factor to be considered. Nuclear is having high reliability whereas other alternative sources such as solar, wind, and hydroelectricity are having very little reliability. Sri Lankan dependency on hydroelectricity has endangered the country on several occasions in the recent past with inevitable planned power cuts which threaten all other sectors in the country. This was caused to lower economic growth and a threat to national security.

E. The Necessity of Alternative Power Source
Hydroelectricity generation in Sri Lanka cannot be increased further due to the non-availability of waterways in large quantities. Under the "Soorya Bala Sangramaya" GoSL attempted to increased solar electricity to the national grid. The inherent issue with solar in the uncertainty and high capital cost. Liquid Natural Gas (LNG) has become one of the competitive candidates to serve as an energy provider to Sri Lanka. The non-availability of LNG within the country, its dependability on other countries, and its impact on the environment are some of the bottlenecks to

consider the LNG as a sustainable alternative energy source.

F. NPP as an Alternative Source of Power
There are pros and cons to every energy source. The reliability of NPP is higher than fossil fuels and many renewable sources. It generates more energy using a fewer quantity of fuel. The reports on the availability of radioactive substances in Sri Lanka soil also a positive factor in favour of the commencement of NPP in Sri Lanka. Further, NPP needs very less maintenance.

Other than the environmental issues and health issues that are related to the generation of nuclear power, being a developing third world country, unavailability of skilled personnel, technology, and financial restrictions are the major barriers in using nuclear power in Sri Lanka. Since, the country has undergone many calamities, insurgencies in history such as LTTE for 30 years and twice with JVP in the recent past, the vulnerability of nuclear plants for incursion and ensuring the security of the plant to be considered in depth. Before implementing NPP, the cultural, political, social, diplomatic, and technological issues are also to be addressed within the country.

G. National Growth and Energy Security Nexus
Despite many other supporting elements, energy security can be considered as the most significant aspect of the economic growth of a country. Per capita, electricity consumption, and per-capita energy consumption are considered significant indexes to measure the development of states in the contemporary world. The development of industries may cause to increase in the power demand of a country. The availability of energy in sufficient quantities with lower rates and reliability and stability of the energy sector may attract much needed local and foreign investments which caused to development a country.

The correlation between economic development and electricity usage has been studied by many scholars and has found a strong correlation. (R Ferguson et al, 2000). Due to the heavy drought experienced in Sri Lanka in the year 1996 country experienced severe power crises as well as an economic downfall. The per capita electricity consumption reported in the year 1995 was 217 kWh and it has reduced up to 206 kWh in 1996.

The same was experienced in the years 2000 and 2001 with frequent power interruptions caused to reduce per capita electricity consumption from 296 kWh in the year 2000 to 292 kWh in the year 2001. The GDP of Sri Lanka also decreased in 2001 up to 15.75 Billion US Dollars from 16.33 Billion US Dollars which was in the year 2000.

The bi-variant relationship between electricity generation and Gross Domestic Production in Sri Lanka has exhibited an extra economic output within the range of Rs.88,000.00 to Rs.137,000.00 due to the increment of every 1MWh in the national grid in 2001 (Morimoto & Hope, 2004).

H. Nuclear Neighbours
Neighbours nearby such as India, Pakistan, Vietnam are also equipped with operational NPPs whereas Bangladesh is having a research reactor which can be considered as the beginning to introduce NPPs to a country. Even though Sri Lanka does not have NPPs within her soil, the impact of leakage of radioactive from available operational power plants in India (especially in Kudankulam in South India) may severely affect Sri Lankan waters, soil, and its people. As per the data poses with the World Nuclear Association, the list of nuclear power plants available in Asia are as follows:

Table 1. Nuclear Power Plants in Asia

Sr.No.	Country	Power Reactors			Research Reactors Operable
		Op	Under Con.	Plan	
1	Bangladesh	-	1	1	1
2	China	38	20	39	16
3	India	22	6	19	4
4	Indonesia	-	-	1	2
5	Japan	42	2	9	1
6	Kazakhstan	-	-	0	4
7	S. Korea	24	4	1	2
8	N. Korea	-	-	0	1
9	Malaysia	-	-	0	1
10	Pakistan	5	2	1	2
11	Vietnam	-	-	4	1
Total		131	35	76	36

Source: World Nuclear Association 2019

I. Sri Lankan Initiatives
NPP has been considered by Ceylon Electricity Board as a possible candidate in the electricity generation mix in Sri Lanka (LTGEP, 2018). The World Nuclear Association has recognized that Sri Lanka has expressed interest in considering, plan, and start nuclear power plants. However, as a country, Sri Lanka has not forwarded country paper on her enthusiasm over nuclear power prospects (World Nuclear Association, 2018). Other than that Sri Lanka has signed bilateral agreements with India in 2015 and Russia in January 2018. To promote nuclear technology in the country, the government has instructed all the higher educational institutions to include subjects related to nuclear energy to the curriculum. Accordingly, necessary steps have been taken to amend the syllabuses of Advance Level and educate instructors, lecturers, and school teachers on nuclear energy via student/ staff exchange programs with Japan, Korea, the USA, and the UK. (Ranaweera, 2018)

Conclusion

Energy demand will increase further in the future with the continued development of Sri Lanka. To reach the SDGs and to gain steady national growth, it is essential to have a proper capacity mix and use of sustainable and reliable energy source to run the base load of the country. There are several alternative sources and among them, considering the pros and cons of use, nuclear also has been considered as a possible candidate in the future in Sri Lanka. Higher capacity factor, reliability, environment friendliness availability of fuel in sufficient quantity, lesser maintenance are the pros while uncertainty in nuclear safety and security, higher capital cost, and technological lapses are the main barriers with the introduction of NPP. However, researches have found that the death per unit of energy in very minimum with nuclear compare to other energy sources. Most of the neighbouring countries in the region also have acquired NPP at present and they have eased up their energy crisis to some extent. Energy security is an essential part of national security and an effect on all other security aspects directly or indirectly. The national growth also depends on national security. Hence, the nexus between energy security and National growth is evident and the

introduction of NPP to Sri Lanka would be a better option in the future to Sri Lanka. However, it is essential to ensure the safety and security aspects before introducing NPP to Sri Lanka and for that, it is necessary to work according to a stiff framework with sheer determination.

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A Holistic Approach to National Security of Sri Lanka

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Abstract— Most spoken effects of the 9/11 Chapter seem to fade away with the new development of the COVID 19 pandemic situation and beyond today. Priorities for security does not limit to terrorism where the world is discussing pandemic security, economic security, environmental security, and social security at large. However, it is not a new concept, and some countries are adopting similar strategies to manage their national interests since national security always depends on each nation's interests. Hence, it is pertinent to study the holistic approach to national security and see whether it is suitable for developing nations like Sri Lanka. First, Researchers selected countries already adopted a holistic approach to their national security for background study. Having considered Chinese, Indian, Pakistan, Singapore, USA, and United Nations (UN) approaches to national security, researchers decided ten important components to analyze as the literature. Moreover, the Global Peace Index (GPI) 2019 was used to select the most peaceful, average, and least peaceful five countries each to analyze whether those results have any impact on their approaches in particular. Finally, threat perception was taken into consideration to select the most suitable aspects to form a holistic approach to the national security of Sri Lanka and suggested an appropriate holistic approach to Sri Lanka by considering those factors and the present situation.

Keywords: *Holistic approach, National Security, Sri Lanka*

Introduction

A logical and semantic approach to defining national security leads to ambiguous and inconclusive conclusions. Even though there is no universally accepted definition, the military aspect is the core of national security, but still, it is not the sole value (Cheng Bian, 2020). The Oxford dictionary gives a simple definition of national security as the safety of a nation against war, terrorism, or espionage. However, it is more complicated than we think today. Further, Ahmad Faruqui (2002) stated that national security is not the country's military combat effectiveness while indicated nonmilitary dimensions such as firm foreign policy, economy, social cohesion, and political

leadership. Hard military assets listed as the fifth dimension. Still, the scholars around the globe haven't agreed to a universal definition of the topic. Depending on their interests, different nations define national security to serve their motherlands. With that, the researchers' next focus was to find the national interests of Sri Lanka.

According to the literature, the definition of national security deals with national unity, territorial integrity, sovereignty, save national interests and values against both internal and external threats, freedom from fear of attack, political, economic and social values, democracy, human rights, and social security in 21st century. Australia's national security is to keep it's citizens safe and secure while protecting the borders around and preventing organized crimes (Gov.Aus, 2020). According to US president, their national security deals with the safety, interests, and well-being of citizens while maintaining the economy, military, borders and the sovereignty of the great nation (USA, 2017). Moreover, the Russian perspective of national security is the security of people as the bearer of sovereignty as

the only source of power (RussianFederation, 2016). Chinese President Xi Jinping emphasized a holistic approach to national security from human security as the most concerned while keeping political safety, economic security, military, cultural and social security while maintaining international security (Swaine, 2015). Even though national security and strategies have been defined and published by various countries, and authors have their doubts whether those strategies genuinely reflect on the documents released. Since the world is heading to a high competition around the globe, it was evident that nobody wants to publish their sensitive interests. Hence, any strategy published hiding their original intention, and the interests of a country would not reflect the real strategy at large. However, researchers observed the similarities among those definitions discussed above and considered the academic perspective of the same.

Since National Interests of Sri Lanka is not indicated in any of the leading literature related to the country, authors also look for a meaningful statement to be suited as the national interest of Sri Lanka. A book chapter (Lebow, 2020) discussed the nature of national security. It indicated that the most important aspects are the values and goals of a country, depending on what kind of country is expected. National interest and policies should address the test of being practical while politically feasible in the home country and potentially reasonable to success abroad. Therefore, Sri Lanka needs to decide what kind of country we need tomorrow for our people. One aspect is evident as we do not intend to dominate or conquer any other state in the future. Even though it is not appropriately defined, it is the democracy, sovereignty, and territorial integrity of the island while maintaining the ethnic harmony and security of the people by observing a non-align foreign policy. There may be some additions, but the essence would align with the same direction (Aryasinha, 2018).

Literature Review

A. A Holistic View of National Security

Chinese Approach: Chinese President Xi Jinping indicated the holistic view of national security in April 2014 at the National Security Commission of the China Communist Party (CPC).

Accordingly, ultimate human security will be ensured with political security as the overarching importance and economic security, which takes precedence over all other considerations to social, cultural, and military perspectives. It can reinforce actions in different areas and the interests of international security. Hence, the Chinese national security system was initiated with its characteristics as a holistic way to keep national interests.

Further to that, all possible initiatives were taken as a people-centered approach implemented for the people, getting the support of the public based on their needs (Swaine, 2015). Components of the Chinese holistic approach has even more considerations in depth. Their focus on internal and external security has no exception. Domestic concerns ranging from promoting development, creating a crime-free environment, reform as part of the five-year plans, and maintaining the stability of the country has prioritized. Analyzing external concerns, Chinese people always respect international peace, looking for win-win situations for mutual benefits, and promote world harmony at large.

Development issues and security does hand in hand with their approach. Development is the basis for security, while security provides conditions for growth. In that, the Chinese consider traditional and non-traditional issues at home. Political security, homeland security, including economic, social, cultural, and military aspects, should merge with information technology, science and technology, resources, ecological matters, and nuclear science. Finally, concerns of a strong military to defend the threats. However, the Chinese believe that a prosperous economy is key to the success of a strong military around the country.

B. USA Approach

According to the latest national security strategy published in 2017, President Trump declared well-being, safety, and interests as the top priority. Further, elaborated revitalization of the American economy, border security, rebuilding the military, preserving peace through strength and sovereignty, to advance fellow citizens' values, including American influence in the world.

Further, the US likes to pursue the world with strong and independent nations, respecting their own cultures, values, and dreams, sharing prosperity, peace, and freedom. The USA also

follows "America First" foreign policy. Moreover, the same document indicated their approach to foreign policy and discussed the threats as well. Developing nuclear power in rouge nations, radical Islamic terror groups, the Middle East, and dealing with other rival powers were the main concerns of the White House (USA, 2017).

C. *UN Perspective of Global Security*:
United Nations Office for the Coordination of Humanitarian Affairs (OCHA) has illustrated a broader dimension about human security elements (UN, 2001). It has gone beyond military protection approaches and caters to threats on human dignity as well. Therefore, it is an essential move for states to make adequate efforts to cooperate with other nations to engage and adopt global security initiative directions indicated by OCHA. Further, OCHA has widened the definition of security under different areas of security initiatives as follows:

a) Economy: New employment opportunities and measures against poverty
b) Food: Eradicating hunger
c) Health: Basic health care, preventing disease, malnutrition, unsafe food
d) Environmental: Environmental degradation control, resource depletion, pollution, natural disasters
e) Personal: Stopping of physical violence, domestic violence, crime, child labour, and terrorism
f) Community: Religious, ethnic, and other community-related violence
g) Political: Political repression prevention and human rights related abuses

D. Indian Approach
Scholars and experts discussed the absence of a formal National Security Strategy for a regional power such as India and its implications to not only the nation itself but the region as well. Campose (2016) claims that the frequent cross border terrorist attacks and the unrests in Jammu and Kashmir are the results of not having a proper laid down strategy for tackling the security issues posed by the external and internal parties. Following the landslide, victory of prime minister Modi in 2019, Kumar Singh, who is a prominent figure in Indian Defence Account Service (IDAS), urged that it is high time for India to publish its National Security Strategy. A

proposed doctrine by Delhi Policy Group entails the crucial elements such as stable political institutions, economic growth, social harmony, law and order machinery, expeditious judicial relief, and good governance in its national security strategy for India as their internal matters of concerns. Moreover, the doctrine emphasizes on calculating the external threats and tackling them through diplomacy and defence capability. The right to life, safety, and well-being of every Indian in conditions of internal and external peace set to be the supreme objective of a comprehensive national security strategy. Meanwhile, policymakers have identified perpetual border disputes on multiple fronts, Kashmir issues, and security issues related to the Indian Ocean Region (IOR) as key external challenges. Moreover, religious, cultural, and racial diversity, scarcity of resources, poverty, are some of the significant internal challenges for the India which needs to address through its national security strategy (DPG Report, 2016).

E.   *Pakistani Approach*:
Since its inception, policymakers have not been able to draft a reliable and undisputed national security strategy for Pakistan (Khan, Jaspal and Yasmin, 2017). However, there have been various attempts to craft a comprehensive national security policy for the nation by perceiving both external and internal threats. Policymakers have observed several distinctive paradoxes, namely geo-strategic, global, regional, and national constraints. Khan et al. assert that Pakistan needs to revisit its relations with the military and political elites to formulate a comprehensive and consensus national security policy. The instability in Afghanistan, border disputes with both its eastern and western fronts with India and Iran respectively identified as external threats to Pakistan. In contrast, religious extremism, instability in the Baluchistan region, economic, political, and security issues related to the China Pakistan Economic Corridor (CPEC) perceived as internal challenges.   However, in 2018 Pakistan laid the foundation for crafting its national security policy named National Internal Security Policy (NISP). The vital domains such as administrative/governance, ideational, socio-economic, and federal-provincial structured to mitigate the threats that are faced by Pakistan exclusively. NISP, 2018 therefore, in its broader sense, catered on implementing a holistic approach to confront the internal security issues

to create an environment for the state to mend the bridge with society for a secular, independent and peaceful Pakistan (NISP, 2018).

F. *Singapore National Security Strategy*: The idea for a documented national security policy for Singapore conceived through the United States Homeland Security initiative on the post 9/11 era. The primary objective of the aforesaid national security policy was to confront transnational terrorism to ensure a secure environment for Singapore's economic aspirations in the region. Its internal security has a tremendous impact on economic activities, society, political stability, and country's progress (Yam, 2004).

A single institution does not govern Singapore's national security domain. Several departments vested upon the responsibilities. For instance, the Ministry of Defence tackles the external security threats in coordination with its armed forces. Homeland security is the responsibility of the police and the ministry of internal affairs. The national security policy, which focused on confronting transnational terrorism, advocated establishing systematized nexus of institutions in the government, that are jointly operating in coordination with the various layers of the society aiming at prevention, protection, and response upon any threat

G. *Global Peace Index (GPI)*

The Institute for Economics & Peace (IEP) is a non-profit and independent think tank research on global peace. 2109 report of IEP covers 99.7% of the world population with 163 sovereign states and territories measuring their level of peacefulness as an index becoming the world's leading measure of global peace. According to GPI 2019, most peaceful countries in the earth are Iceland, New Zealand, Portugal, Austria, and Denmark, while the average five countries Peru, Bosnia, Tunisia, Jamaica, and the Dominican Republic. Finally, the least peaceful countries are Afghanistan, Syria, South Sudan, Yemen, and Iraq (Peace and World, 2019).

Methodology

At the outset, researchers derived ten critical components from the available literature. Considering the Chinese, Indian, Pakistan, Singapore, US, and UN approaches of national security, authors developed a framework to find the components for a comprehensive national security strategy. US and Chinese were selected to represent major power blocks while UN was taken as an independent body. India and Pakistan were selected as the regional powers while Singapore was selected due to its similar characteristics to Sri Lanka such as geographic location, open economy and cultural diversity. However, analysis is theoretical and needs customization depending on each country's interest and the present situation. Hence, researchers found ten critical components to include in a comprehensive national security strategy as a holistic approach. Those factors include; Human security, Sovereignty, Political Security, Economic security, Social security, Cultural security, Military security, International Peace, Homeland security, and Information technology. After that, researchers followed the 2019 GPI to find out the most, average, and least peaceful countries and to analyze above mentioned ten factors related to those positions of the index. Therefore, those fifteen countries were listed against the ten most essential elements of a comprehensive national security strategy or the holistic approach to national security at large. Finally, threat perception was taken into the consideration to select the most suitable aspects to form a holistic approach to national security of Sri Lanka. Table 1 below summarises the most peaceful countries in orange colour, average countries in blue, and the least peaceful countries in red colour.

(Kept intentionally blank)

	Citizen security	Sovereignty	Political security	Economic security	Social security	Cultural security	Military security	International Peace	Homeland security	Information technology
Iceland	√	√	√	√	√	√	X	√	√	√
New Zealand	√	√	√	√	√	√	√	X	√	√
Portugal	√	√	√	√	√	√	√	√	√	√
Austria	√	√	√	√	√	√	√	√	√	√
Denmark	√	√	√	√	√	√	√	√	√	√
Peru	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
Bosnia	√	X	√	√	√	X	√	X	√	X
Tunisia	√	√	X	X	X	X	√	X	√	X
Jamaica	√	X	√	√	√	√	√	X	√	X
Dominican Republic	√	√	√	√	√	√	√	√	√	√
Iraq	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	√	Not Available	Not Available	Not Available
Yemen	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	√	Not Available	Not Available	Not Available
South Sudan	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	√	Not Available	Not Available	Not Available
Syria	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	√	Not Available	Not Available	Not Available
Afghanistan	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	√	Not Available	Not Available	Not Available

Table 1: Analysis of most, average and least, peaceful countries according to 2019 GPI
Source: Authors

Analysis

According to the comparison in Table 1 above, it is evident that the most peaceful countries adopt almost every possible effort to integrate their national security initiatives. It is fascinating to note that the most peaceful country is without a military for their security. All the top countries considered having a holistic approach to national security, while average countries show moderate results. However, the states have the worst peace conditions in the index seems to have conflicts in their soils. Accordingly, researchers used the said components to develop a holistic approach for national security. However, to develop a holistic approach to the national security of Sri Lanka also needs the threat perception and the present situation of the country.

Present Situation and Threat Perception of Sri Lanka

Since independence Sri Lanka had various internal conflict situations from 1971 to date, a major crisis was the Liberation Tigers of Tamil Eelam (LTTE), which is still manipulating in the international arena. However, the continuation of the same organization activities in the political approach has threatened the sovereignty of the country. It was clearly illustrated the alleged human rights violations at the United Nations Human Rights Commission. Some scholars still believe that Sri Lanka is without any national security strategy, despite having several successive governments since independence (Ranasinghe, 2019). In contrast, researchers contentious prove the military victory against one of the world's ruthless terrorist organizations. Without a comprehensive national security strategy, that wouldn't have been a success. Therefore, it is essential to release a modified and updated

version of national security strategy. Pathfinder report is one of the latest documents compiled by an expert panel of the country. Their view on national security threats is divided into three broad categories; external threats are coming from geopolitics, threats that are emerging from internal causes, namely socio-political and ethnic-religious roots, and the modern threats generated from contemporary context such as globalization related threats. Figure1 below depicts the threat perception from that report.
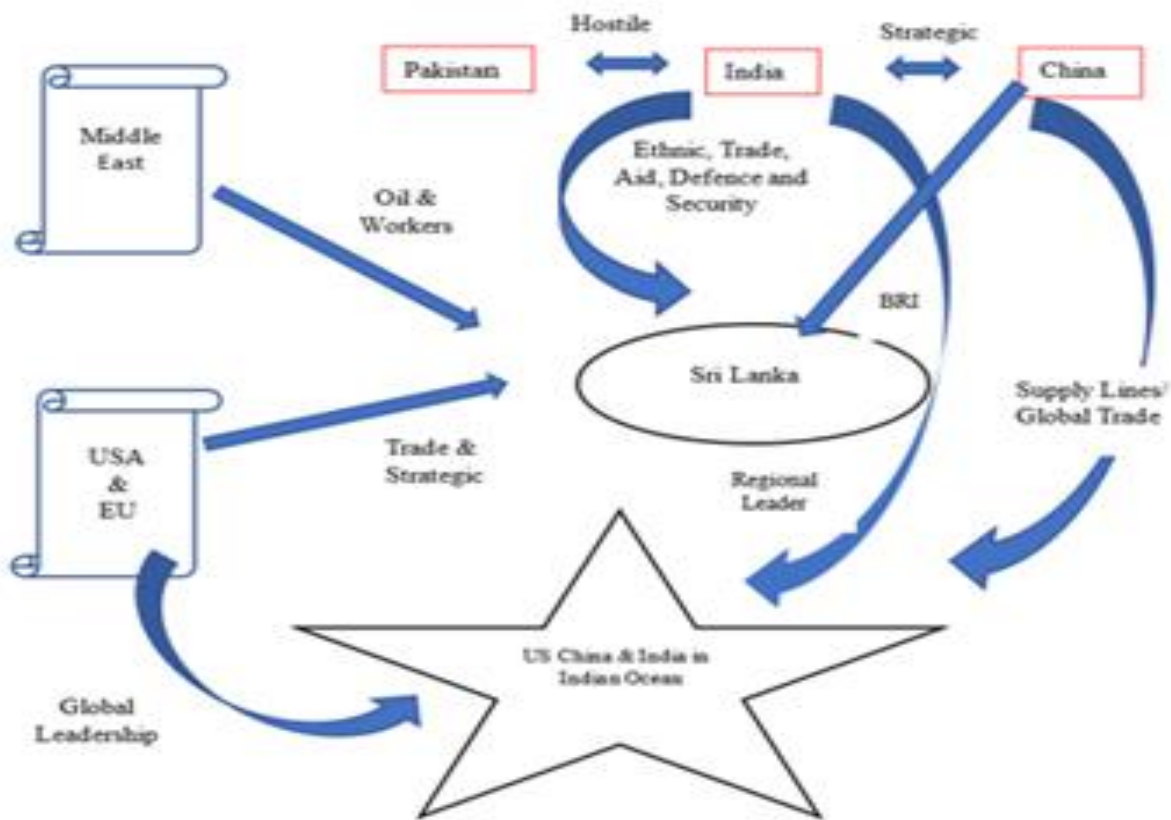
(Kept Intentionally Blank)

Figure 1: Threats to Sri Lanka National Security
Source: Pathfinder National Security Strategy for Sri Lanka 2020

The latest incidents reported on 13 June 2020 are alarming the re-emergence of some fractions related to LTTE in the Jaffna peninsula. Coming on to present security concerns, like most of the other states, Sri Lanka also facing terrorism driven by religious fundamentalism, Muslim extremism, in particular, have become a significant threat (Amresh Gunasingham, 2020). Even though it is considered as Lone-wolf terrorism, it has become a complicated and debatable issue in the counter-terrorism paradigm today (Fadillah, 2020). Recent suicide attacks on 21 April 2019 is the best evidence to consider and look for future scenarios. Impact of post-COVID 19 pandemic to the country's economy had discussed by Sri Lankan scholars (Weerathunga and Samarathunga, 2020) suggested essential aspects as to how the economy should be secured. With the present threat to the country, Economic aspects also become a key concern today.

Another major global terrorism threat is the cybercrimes where Sri Lanka is not an exception. Apart from those threats, illegal immigrants, illegal fishing, arms trafficking, human trafficking, and drug trafficking takes precedence as threats to national security. Moreover, the Pathfinder Foundation indicated three types of threats to national security in Sri Lanka as geopolitical, internally generated threats due to the country's socio-political and religious environment, and contemporary historical threats (Goonetilleke et al, 2019). After looking at the threats to Sri Lanka, researchers listed most imminent threats to consider before deciding on a holistic approach to national security as Re-emergence of LTTE, LTTE diaspora and political threats, Muslim extremism as Lone-Wolf activities and beyond, Cyber Crimes, Illegal immigrants, Illegal fishing, Arms trafficking, Human trafficking, Drug trafficking. Accordingly, those threats have listed against the factors derived as the components of a comprehensive national security approach in table 2 below. At the same time, Figure 2 depicts

the summary of a holistic view of Sri Lankan National Security:

Threats	Components
Re-emergence of LTTE Muslim extremism	Military Security
Illegal immigrants Illegal fishing Arms trafficking Human trafficking Drug trafficking	Citizen Security Social Security Cultural Security Homeland Security
LTTE diaspora and political threats	Sovereignty
Cyber Crimes	Information technology Security
Post COVID 19 economic threats	Economic Security

Table 2: National Security Threats vs Components

(Kept Intentionally Blank)
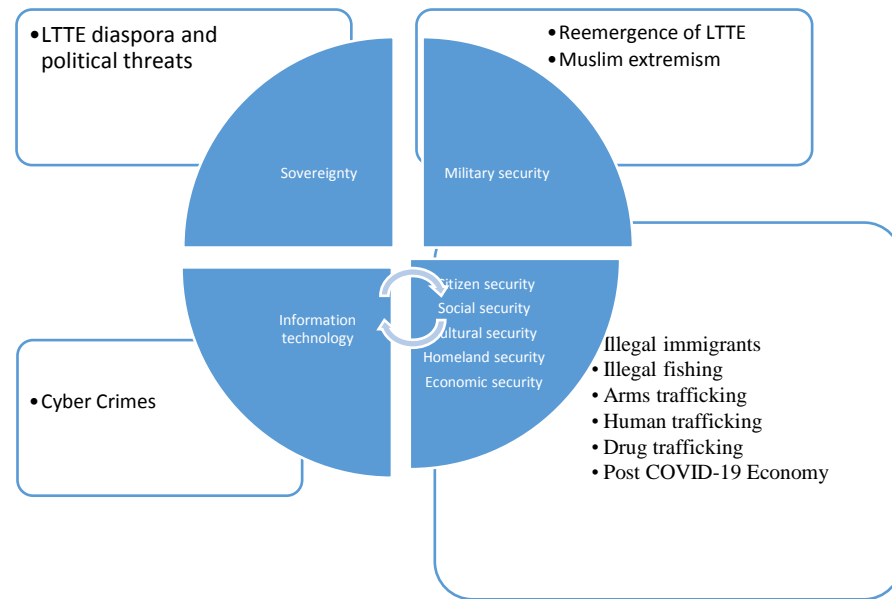
Figure 2: A Holistic View of National Security in Sri Lanka

Source: Authors

Conclusion

Despite having much academic literature to prove that Sri Lanka does not have a national security strategy, authors brought out that Sri Lanka is well organized with a national security strategy that is not published due to the sensitivity of that information. A holistic view to national security was examined with Chinese, Indian, Pakistan, Singapore, US, and UN approaches and derived the components of comprehensive national security strategy as Human security, Sovereignty, Political Security, Economic security, Social security, Cultural security, Military security, International Peace, Homeland security and Information technology. Then the GPI was used to analyze those factors to validate and select the most suited elements to develop a holistic approach to national security. Threats to the national security of Sri Lanka also discussed, and those threats analyzed with the factors selected. Finally, most suited eight components were chosen from the analysis to include in the holistic approach to Sri Lanka national security as Military security, Citizen Security, Social security, Cultural security, Homeland security, Sovereignty, Economic security and Information technology security.

Conflict of Interests

Authors do not have any conflict of interests pertaining to this piece of writing.

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Recruitment Rhetoric: Media Strategies of the Islamic State and Al-Qa`ida

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Abstract-Salafi-Jihadi information operations are designed to manipulate, radicalize, and recruit from the global Muslim population. This paper examines the global outreach operations of prominent Salafi-Jihadi groups, in an effort to outline suitable responses to Islamic extremism in the Sri Lankan context. It draws from in-depth studies of media strategies utilized by the Islamic State and Al- Qa`ida, based on their online presence, media outputs, and captured materials. It also considers information and analyses of primary source materials such as magazines, recruitment guides, and interviews with terrorists and their family members. These are discussed in the context of the broader strategy of al-Qa`ida and the Islamic State. Both organizations seek to exploit 'Islamaphobia' to recruit and radicalize individuals from a target audience on multiple 'impact' levels. Relevant methods are presented to consider the scope and depth of their information operations. Research findings that show propaganda campaigns are designed to have strategic as well as individual impacts to propagate ideology and inspire action are summarized. Recruitment and radicalization approaches based on both sociological studies and data from individual country experiences were then used to frame observable pathways to terrorism. An analytical lens based on risk factors is used to discuss recruitment tactics on structural, social, and individual levels. Recommendations for Sri Lanka to counter the spread of 'Islamaphobia', improve social integration, and counter extremism at a local level are presented for consideration by policymakers*.

Keywords: Recruitment, Terrorist Strategy, Information Operations

Introduction

Terrorists seek to provoke societies and governments into action that benefits their overall strategy. It is therefore fundamentally incumbent upon the security establishment to understand this overall strategy and avoid playing into the underlying motives of terrorist groups. This paper intends to provide an understanding of the global outreach operations of international Salafi-Jihadi groups in an effort to raise the veil of confusion on radicalization into Islamic extremism in Sri Lanka. Groups like Al-Qa`ida and the Islamic State are adept at manipulating this confusion in communities they target. The paper will discuss and introduce recruitment strategies and approaches that subvert Muslim communities around the world.

Methodology

This research considers the global recruitment approach of Al-Qa`ida and the Islamic State. It explores and contrasts the recruitment methodologies and media used by these organizations to manipulate a global audience. In-depth research conducted by research organizations and scholars engaged in security studies were consulted extensively for this purpose. These studies included primary data collected from former and current Salafi-Jihadis. Cumulatively, this research draws from qualitative data collected on or from over 2800 members, defectors, and family members from terrorist groups from around the world. Given the global threat of inspired lone actors and groups, a number of studies analyze the media strategy of these two groups through the in-depth study of media outputs, captured materials, and online presence. Studies included Arabic and other language publications and forums. Peer reviewed publications were also consulted to gain understanding of various recruitment and radicalization theories. Primary data in the form of online Salafi-Jihadi publications were also considered. This includes *Inspire*, *Dabiq*, and *Rumiyah* magazines as well as informal and formal recruitment guides and analyses of the

same. Analyses of terrorist profiles and backgrounds were also consulted. The time period covered in the research extends from 2006 to the present.

Extremist Ideology

At the outset, it is necessary to define who are the Islamic extremists. The Cambridge dictionary defines an extremist as someone who has a belief that is considered unreasonable or unacceptable to most people (Extremism, n.d.). According to the PEW Research Center, there are 1.7 billion people who follow the Islamic faith worldwide (Diamant, 2019). Every Muslim is obliged to follow the teachings of the Prophet and the Quran in practicing Islam. As in any faith, this is done to varying degrees and consists of various sects, sub-cultures, and orientations based on their interpretation of the religion. Within this Muslim population, some have laid exclusive claim to being Salafis, which, in its broader interpretation is a "universal Islamic ideal to follow the teachings of the Prophet and the early pious Muslim community" (Bin Ali, 2018). According to Mohammed Bin Ali "...the difference between the Salafis and non-Salafis is about interpretations, understanding of religious texts, methodology and approach." Salafis are not considered a separate sect or united under a movement or hierarchy but have emerged as the most prominent representatives of the Islamic faith in the world today, due to terrorism. This is due to the sustained activities of the so-called Salafi-Jihadists, who believe in violent action to enforce strict adherence to their interpretation of Islam and proselytize the world. To them, moderate and liberal Muslims are considered bad Muslims, even worse than non-believers of the faith. To date, a large majority of those killed at the behest of Salafi-Jihadist are fellow Muslims, and a large majority of terrorist attacks occur in Muslim countries (Cordesman, 2017). Their violent interpretation of Islam has been propagated with such aggressiveness and effect that all Muslims are judged on the purity of their practice in relation to the tiny minority of self-proclaimed Salafis.

An overwhelming majority of Muslims reject extremism and violence, but the non-Muslim world has been led to believe that the Salafi-Jihadi approach represents all Islam (Cordesman, 2017). The rejection of the Salafi approach can be seen in the data from the country with the largest Muslim population, Indonesia. Results of a 2015 survey conducted by a private company showed that Indonesian public perception of the Islamic State is significantly negative. According to the survey results only 0.3 percent of respondents supported establishment of the Islamic State and importantly, only 0.8 percent "indicated even general support" for the group (Moir, 2017).

In actuality, "*Islamaphobia*" that has swept the world today, plays right into the strategy of the Salafi-Jihadis, bringing to life a fundamental concept of their worldview, that of us versus them (believers vs. non-believers). This perception is the soil that forms the breeding ground for Islamic extremism. This concept must be addressed if the scourge of Islamic extremism is to be addressed with any effectiveness. This writing intends to highlight how this perception is manipulated to recruit and radicalize individuals into violent action, feeding into the strategy of the Salafi-Jihadis.

Despite the different definitions and interpretations of Jihad, what is relevant here, is the violent interpretation that is used by globally oriented Islamic extremist groups. To them, Jihad is considered a "Holy War" and it is the religious duty of every Muslim to contribute towards the effort. Under the umbrella label of Salafi-Jihadism, Al-Qa`ida and the Islamic State compete for the mantle of global representative of the 'true' Islam in pursuit of a violent revolution in the name of Islam. Despite the religious veil, Al-Qa`ida and the Islamic State are both political-military organizations with a global audience and an objective of global governance. They differ in their organizational structure and execution of their objective. However, in order to survive in the face of global security measures, their structure and activities have resembled each other, albeit, at different points in time. Both Al-Qa`ida and the Islamic State operate in a centralized or decentralized manner depending on the activity, local security context, and available support structure.

They differ only in the following aspects; Al-Qa`ida is organized with a core leadership based in the tribal areas of Pakistan and Afghanistan (hereafter Al-Qa`ida Core); affiliated groups such as Al-Qa`ida in the Arabian Peninsula, Jemmah Islamiya in Indonesia, and Al-Qa`ida in the Indian

Sub-Continent; associated groups such as the Taliban in Afghanistan, Lashkar-e-Taiba and Tehrik-e-Taliban in Pakistan; and adherents or inspired individuals and groups scattered throughout the world. The Islamic State is organized as a physical State in territory captured and held for a time in Syria and Iraq, provinces or Wilayats such as the Khorasan province to which parts of South Asia come under, groups that have pledged allegiance to the Islamic State such as Boko Haram, and inspired individuals and groups worldwide or adherents.

Salafi-Jihadi Strategy

The political objective of both Al-Qa`ida and the Islamic State can be considered as claiming lands with majority Muslim populations to be governed according to a traditional interpretation of Sharia or Islamic law. In order to achieve this, their objectives can be summarized as overthrowing the existing governing structure of majority Muslim countries and expelling these countries of Western influence and interference. The Salafi-Jihadi has two enemies, the near enemy who are essentially the Sunni establishment; be they in Government or religious administration form, and the far enemy, who are the non-muslims led by the Western establishment and institutions. It is important to note that Western culture prevalent worldwide as a result of the region's global socio-economic dominance is included within the latter category. In engaging both the near enemy (except in and around areas that are physically controlled by these groups) and the far enemy, Al-Qa`ida and the Islamic State draw from Salafi-Jihadi theologians and strategists throughout history and prominent theoreticians and practitioners of guerrilla warfare (Whiteside, 2016 and Chipman, 2003). The teachings of Mao-Tse Tung, Col. Von Nyugen Giap, and Che Guevara, all advocated terrorism as a tactic within a larger strategy for political revolution. Political objectives of the weak have proven to be achievable to various degrees through the practice of asymmetric warfare. As the Islamic State demonstrated through gruesome public executions of individuals, terrorism is effective in gaining the attention of an international audience with minimal effort.

Terrorist attacks are executed to attain various smaller objectives that support the overall strategy to achieve the aforementioned broader objectives. For example, Al-Qa`ida attacks to provoke are used to draw out its enemy into a resource draining response. The Islamic State seemingly uses terrorist attacks of provocation to influence the enemy into responding in a manner that persecutes Muslims. Either way, the narrative that the West and local power structures are inherently anti-Islamic and intent on subjugating and exploiting Islamic lands and people is fulfilled when they effectively provoke their enemy into repressive acts. Al Qa`ida and the Islamic State compete to establish themselves as the vanguard of Islam, demonstrating that the only solution to the resulting *Islamphobia* is the violent interpretation of Islam, Salafi-Jihadism. Their propaganda campaigns are designed to feed this concept comprehensively (Ingram, 2016).

A. Information Operations
"...we are in a battle, and more than half of this battle is taking place in the battlefield of the media." (Al-Zawahiri, 2005)

While the above statement is true in any conflict, it is more important in relation to terrorism. The asymmetric tactic of terrorism is targeted violence at non-combatants in order to influence a wider audience and impact a political objective. In order to influence a wider audience, terrorist groups need to be conscious of how and to whom it promotes its accomplishments. In impacting a political objective, their message needs to be relevant and rational. Both Al-Qa`ida and the Islamic State have put in a great amount of effort to organize their information operations on multiple 'impact' levels in order reach their target audience effectively.

Despite being acutely aware of the importance of centralized media output, Al-Qa`ida does not have a hierarchical media organization. Instead, its information operations take place in a decentralized manner on multiple levels with some training and assistance from Al-Qa`ida Core (Gambhir, 2016). Al-Qa`ida Core based out of Afghanistan and Pakistan put out statements, letters, videos of battle and training, and speeches to set the ideological, theological and strategic tone of the organization. These are carefully released using multiple methods including respected Western and Middle Eastern media companies. They were careful to select media companies that would provide them with

"detailed reporting and faithful quotations" (Hankiss, 2019). A production company set up by Bin Laden released over 160 videos between 2005 and 2007 (Hankiss, 2019). Al-Qa`ida affiliates also operated production companies that prepared videos and magazines designed to inspire, educate, and influence a global audience. The *Inspire* magazine published by Al-Qa`ida in the Arabian Peninsula is one such example. Both *Inspire* and another online magazine *Camp of the Sword*, provided instructional material for aspiring Salafi-Jihadis. For example, the first edition of *Inspire* included an article authored by "The AQ Chef" titled "How to Make a Bomb in Your Mom's Kitchen" (AQAP, 2010). It also included an article on how to send and receive encrypted messages including through easily available mobile phone apps. Al-Qa`ida members and adherents operate numerous websites and forums to push out instructional materials, theological justification, propaganda videos and articles, and Jihadi magazines that address various related topics. According to Hankiss, "by 2008, Al-Qa`ida was running over 4000 websites". However, these efforts do not appear to be organized or cohesive campaigns (Gambhir, 2016). There are however, networks and relationships that are closely interlinked in the world of jihadi information operations (Kimmage, 2008).

In contrast to Al-Qa`ida, the Islamic State runs a hierarchical media organization to conduct highly cohesive information operations. Taking from Bin Laden's desire to centralize media operations, Al-Qa`ida in Iraq, the predecessor to the Islamic State, created Al Furqan Institute for Media Production in 2006 (Hankiss, 2019). Thereafter, the Islamic State "created a highly structured, well-resourced bureaucracy to support its media operations" (Gambhir, 2016). By centralizing media production and output, the Islamic State information operations are clearly aligned with its military operations through its operational structure. It maintains cohesiveness through written guidance, evaluation and quality control processes, and interaction with its media bureaus (Milton, 2018). It also allocates resources for training as well as encryption and security protocols along multiple levels of engagement (Bloom, 2017).

Islamic State propaganda operations also comprises a decentralized approach. Here, the structure of information sharing is horizontal, and consumers are also issuers of material. "This approach is by nature interactive, decentralized and empowering to the bottom" because every user can be a content creator and user (Ben Arab, 2016). Once they have accessed material from an Islamic State affiliated source, they are able to share information via personal accounts on social media, jihadi forums, and content sharing sites. This leads to a ripple effect that in theory allows unlimited reach for content originating from the media tentacles of the Islamic State. This tactic allows the Islamic State to "crowd source" its content while maintaining a coherent message or narrative. The multi-dimensional approach of Islamic State information operations allows them to have not only coherence, but also an adaptive approach to propaganda.

This is demonstrated in the sequence of professionally produced online magazines that the Islamic state published between 2014 and 2017. *Islamic State News* and the *Islamic State Report* published in June 2014 transitioned to *Dabiq* published from July 2014 to July 2016, which transitioned to *Rumiyah* published from September 2016 to September 2017. Contents of the magazines were used for strategic politico-military propaganda that reflected its physical rise and fall as well as theological arguments and discussion to justify and promote its ideology. They were closely connected to the groups information operations that "generate a self-reinforcing and compounding strategic and psychological impact on target audiences" (Ingram, 2018).

It has employed new technologies and approaches to information operations that clearly distinguished them from other Salafi-Jihadi organizations in cyberspace. Now that the physical Islamic State barely exists, its information operations may very well have become more decentralized. The 'Virtual Caliphate' though, based on the foundations of a highly organized and adaptive media apparatus is likely to continue to be as effective (Gambhir, 2016).

The Islamic State and Al Qa`ida have developed their information operations to propagate their ideology and execute their overall strategy. Thus, their media operations also reflect organizational evolution. In order to understand how inspired

actors are made operational in their name, we need to understand the framework within which recruitment and radicalization takes place.

B. Recruitment and Radicalization
There is no shortage of social science theories and approaches explaining how and why individuals join extremists' groups (Borum, 2011). Despite the amount of evidence showing that both Al-Qa`ida and the Islamic State expend resources to recruit individuals to their organizations on any of its layers, ultimately, it is the decision of the individual to enlist or contribute in some manner. Recruitment is not a top down process but more complex in that the individual too takes an active role and identifies with a group. Despite a substantial amount of research on recruitment and radicalization, constant risk factors or theories of who becomes a terrorist or why they resort to violence could not be identified (See Borum, 2011; Williams et al in Neo, 2016, also Soufan and Schoenfel, 2016). There are, however, observable trends and pathways to terrorism that can be considered. Due to the limitations of space and the applicability in this context, the analytical lens of risk factors as framed by Schils and Verhage is used to discuss recruitment and radicalization (Schils and Verhage, 2017). These are 1. Elements forming the breeding ground, 2. Individual push factors (propensity), and 3. Environmental pull factors (exposure). These risk factors are discussed here in relation to the recruitment tactics of Al-Qa`ida and the Islamic State.

1) Breeding Ground: On the first layer, the breeding ground comprises of the social, political, and economic structures on a global or national level that would be beyond the individual's influence. Within this context, local circumstances precipitated by the above-mentioned influences and perceived as discrimination, marginalization, and unemployment, can lead to dissatisfaction and frustration with existing structures. Individual reactions to this context may differ and existing social mechanisms such as social integration determine how they interpret these situations. Perceived injustice or insecurity to an individual or group affects these reactions. Individuals searching for a sense of identity and social belonging are particularly vulnerable (Schils and Verhage, 2017). Research done on Foreign Terrorist Fighters (FTF) in Tunisia by Ben Arab

demonstrates the approach used by Salafi-Jihadist to exploit local situations for recruitment. It showed that the main message of local recruiters for the Islamic State used the local context of injustice, hardship, and perceptions of oppression to magnify the feeling of an existential threat. Their recruitment message highlighted a sense of obligation to take action to protect the local community of Muslims from the oppression and exploitation by other socio-economically powerful Muslims. The Islamic State is offered as the ideal solution that would give them a sense of belonging, purpose, and justice based on Islamic law (Ben Arab, 2016). Research conducted in Kenya and Somalia on members and family of Al-Shabaab (an Al-Qa`ida affiliate) also correspond with these findings (Botha, 2016).

Islamic State media and recruiters play on this crisis narrative of identity and community and eventually offer themselves as the solution (Ingram, 2016). On one level, it serves to inspire potential Jihadis to take action locally, either through supporting an affiliated Jihadi movement or taking individual action. On another level, it inspired individuals to make their way to the physical Islamic State. The effectiveness of their recruitment is proven with an estimated 38,000 FTF joining extremist groups in Iraq and Syria by March 2016 from around 86 countries (TSG, 2015). Outside of Iraq and Syria, in 2018 alone, they claimed 779 attacks around the world (BBC, 2019).

Al-Qa`ida too "has made efforts to frame local grievances in accordance with its narrative outside of the United States" and "harmonize its propaganda with grievance narratives associated with local and regional Jihadi movements" (Braniff and Moghadam, 2011). Al-Qa`ida leaders Bin Laden and Zawahiri have been observed speaking to regional sensitivities and empathizing with local concerns in their communications (Ciovacco, 2009). Al-Qa`ida and the Islamic State have thus been effective in exploiting structural discrimination of Muslim communities and blaming it on the West or corrupt local governments. Evidence of this is corroborated by the numerous attacks conducted against Western targets by adherents and associated groups.

2) Individual Push Factors: "The prospect of finding identity, purpose, belonging, and

adventure seems to be more of a draw for many ISIS recruits than mere theological motivations" (Soufan and Schoenfel, 2016)

Individual push factors are described as personality traits and emotions of individuals. Personality traits may entail a taste for violence or being a thrill seeker (Schils and Verhage, 2017). In research focused on Al-Qa`ida and Islamic State recruits, Meaghin Alarid posits that "Radicalized men and women alike often feel despair, humiliation, and outrage over injustice and perceive few options for influencing change" (Alarid, 2016). Salafi-Jihadi propaganda cater to a variety of personality traits be they rational, educated individuals holding moderate Islamic ideas or uneducated adventure seekers. Malaysians who joined the Islamic State fell into both categories in addition to those with an extreme religious ideology (Moir, 2017). Islamic State media output has included "videos that appeal to individuals seeking excitement, bloodshed, and personal meaning" as well as positive narratives that accentuated the Islamic State as a stable community governed under Islamic law to appeal to professionals (Bloom, 2017). Media releases and social media accounts of professionals who left their home countries were used to advertise the daily lives of educated professionals to "entice other equally capable Muslim professionals to emigrate to Raqqa" (Bloom, 2017). What becomes apparent in examination of personality traits of extremists is that there are no generalized traits that would indicate an individual is at more risk of becoming radicalized. Despite the thousands of members in online violent extremist communities, very few actually get involved in violent activity (Neo, 2016). However, access to online extremist platforms via suggestion or personal interest does have an impact on the likelihood of further exploring this milieu (Neo, 2016). For individuals seeking adventure or a purpose in life, online extremist platforms provide like-minded communities as well as a plethora of material to explore further. Recruiters too are known to seek out "disillusioned youth and individuals with criminal records" (Soufan and Schoenfel, 2016).

3) Environmental Pull Factors: Environmental pull factors involve significant others, attractiveness of the extremist group, and ideological recognition (Schils and Verhage, 2017). Significant others refer to family or friends

that may provide the initial introduction to an extremist ideology or group. Social media, and mobile communication applications allow direct communication with family members and friends who have already joined an extremist group. They are able to not only encourage significant others to join the group but also provide first-hand accounts of their experiences. Research conducted in 'Jihadist hotbeds' or locales that have supplied the Islamic State with a disproportionate number of recruits, show that "recruits often consist of networks of known associates, friends, and family members, rather than a wider web of strangers" (Soufan and Schoenfel, 2016). Some terrorist groups do prefer to recruit family members to ensure operational security and prevent infiltration from the State's security apparatus (Bloom and Horgan, 2013).

Charismatic leaders, influential preachers, and engaged recruiters have also shown to be highly effective at radicalizing and recruiting in 'Jihadist hotbeds. An example is Hussein Bosnic, who focused his recruitment efforts on small remote villages in Bosnia, "off the radar" of the State. He was reported to have put in considerable time into making personal contact with prospective recruits and vulnerable individuals. The network developed by Bosnic established strong ties between Jihadist sympathizers in Bosnia and the Islamic State (Soufan and Schoenfel, 2016). Analysis of 'Jihadist Hotbeds' in the same report edited by Arturo Varvelli (2016), reveal that communities that are isolated from the rest of society, even within Muslim countries, may serve as breeding grounds for radicalization. Madrassas too may serve as incubators for violent extremism and form insulated communities that are difficult to penetrate (Bloom, 2017).

It has already been mentioned that Islamic State propaganda material is designed to appeal to the local context as well as be accessible to a global audience. The result of propaganda that is accessible and customized to appeal to local grievances is that potential recruits may form an emotional connection to a foreign extremist group (Neo, 2016). According to Gambhir (2016), the Islamic State has custom made magazines based on language and recruitment videos based on nationality. Excessive media output by Islamic State allowed them to reach niche audiences on a global scale. Some of their media output was used as general messaging. For example, the magazine

Rumiyah was translated into eight different languages. Similarly, Al-Qa`ida and affiliates too have highly differentiated media outputs developed by their local media companies. Videos, movies, and literature are translated into multiple languages and disseminated via web forums to be accessible to a global online audience (Braniff and Moghadam, 2011). Once accessed by an individual, they can be shared undetected by authorities via a number of available encrypted communications platforms such as *Telegram*.

Expansion is intrinsic in Salafi-Jihadi ideology and therefore their strategy. Their media-operations clearly reflect this expansionist strategy as well as ideology. As al-Qaida Core came under intense pressure and the Islamic State lost its physical strongholds, they encouraged and supported lone action and small-cell attacks around the world. The Easter Sunday 2019 attacks in Sri Lanka stand out as the largest inspired terrorist attack, carried out by adherents of the Islamic State.

Recommendations in The Sri Lankan Context

Sri Lanka has experienced a number of violent events and incidents of social unrest following the end of the ethnic conflict in 2009. By 2015, hundreds of incidents pertaining to religious intolerance and religiously motivated conflict at various levels of society against Muslims and Christians were well documented (Gunatillake, 2015). The anti-Muslim riots in Kandy and Ampara Districts in 2018 stand out as significant events. More concerning is the growing incorrect usage of 'Muslim' to denote a distinct race or ethnicity. It is an identity that is fundamental to the ideology of Salafi-Jihadi's. The purpose of the mention of these incidents and demographic categorization is not to analyze them but pose them in the context of carrying the traits of a breeding ground for recruitment and radicalization introduced above. This context becomes especially important with the presence of extremists that had either travelled to Syria to join the Islamic State or conducted propaganda dissemination campaigns promoting Salafi-Jihadi ideology. In the context of a national mood of *Islamaphobia,* their ideas would have extra weight and rationale for identifying with the self-proclaimed representatives of global Islam*.*

As the investigation on the Easter Sunday attacks unravels details of those involved, family members of attackers are being implicated. Details of the leader of the attackers, Zaharan Hashim's activities have also been revealed. These details match the environmental pull-factors framework of analysis discussed above. Without personality profiles or adequate information on the personal life of the Easter Sunday bombers, we cannot accurately cast them in the light of the individual push factors framework. Nevertheless, the learning from the many studies examined, and the understanding of the breeding ground and environmental pull-factors, allow gleaning of some relevant considerations for counter-radicalization efforts. Ideally, these would serve as building blocks for framing the Counter Terrorism strategy of Sri Lanka and updating the Prevention of Terrorism Act to address the threat of Islamic terrorism.

A. Counter the spread of Islamaphobia
1) Develop national level narratives that clearly differentiate between secular Islam, non-violent fundamental Islam and violent radical Islamism.
2) Clearly differentiate between the average Sri Lankan Muslim and those with radical violent ideologies in reporting associated events in both national and international news.
3) Prohibit the spread of hate speech that attempts to cast all Muslims as Islamists.
4) Prohibit the spread of ideas that inaccurately frame Muslims as outcasts in their own Country.

B. Government agencies should work closely with local religious organizations and groups
1) Develop a non-discriminatory framework that allows the practice of Islam in any form that is non-violent.
2) Identify dissemination of extremist ideologies within the Muslim community.
3) Act on reports by religious leaders or community leaders of extremist activity without delay and in a manner that does not infringe on individual rights.

C. National level policies should be introduced to improve social integration on a structural level
1) Define Sri Lankan identity through a holistic multi disciplinary process.

2) Discontinue single religion schools or introduce minimum requirements for integration of students of different faiths.
3) Prohibit operation of religious schools that do not conform to the national education system.
4) Promote the multi-religious nature of Sri Lankans at all formal Government events and offices.
5) Establish a multi-disciplinary research center to address the complexities of countering violent extremism.

These recommendations have been introduced based on the learning drawn from analysis of global experiences in Salafi-Jihadi terrorism, and the evolving understanding of the nature and dissemination of Salafi-Jihadi ideology in Sri Lanka. Their strategy is to target and exploit inherent weaknesses in national structures. Therefore, effective recommendations need to impact the Sri Lankan public on a structural level in order to address the Salafi-Jihadi narrative. Salafi-Jihadi information operations to manipulate, radicalize, and recruit from the global Muslim population cannot be curbed or stopped through counter-terrorism operations alone. It requires a change in perceptions at a national level. Sri Lankans are privileged to have inherited a multi-religious and tolerant society given the predominance of Buddhist philosophy in the State and society. As Easter Sunday 2019 and its aftermath demonstrated, it would be disastrous for Sri Lankans to mis-interpret the values that the majority population believes in so strongly, and instead continue the intolerant and divisionary practices institutionalized during the colonial period that ended 72 years ago.

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The Drivers of Islamist Extremism in Sri Lanka

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Abstract – The vicious cycle of violent extremism based on religious and ethnic lines which continuous to plague the world as one of the greatest threats to global security has gained renewed momentum in recent times. The current trend of Islamist extremism rooted on Wahhabi or Salafi ideology has gradually spread its tentacles across the globe, creating a new breed of radical combatants that are significantly redefining the international security landscape. The 4/21 multiple suicide bombings perpetrated by 'National Thowheeth Jamaath' (NTJ) on Easter Sunday, 2019 was the first major terrorist attack conducted in Sri Lanka by a Jihadist group that was inspired by the global Salafi Jihadist ideology advocated by ISIS. The Easter Sunday attacks entail multiple national security implications including the fact that such an attack has the potential to inspire others to conduct similar acts of terror and increase support for the Jihadist cause. Salafi Jihadist groups have maintained resilience and has grown in large numbers despite global counterterrorism efforts. This is primarily due to the fact that security strategists and policy makers have failed to address the drivers of Islamist extremism, misunderstood the enemy and misinterpreted their understanding of the global Jihadist ideology. Therefore, in order to effectively prevent and counter Islamist Extremism, it is imperative to identify and understand the drivers of Salafi Jihadist groups which vary across cultures and regions. Even though there are many forms of extremism which is prevalent in the local context, this paper will provide an in-depth analysis on the murky world of Islamist extremism and its evolution in Sri Lanka. This paper which focuses on identifying the drivers of Islamist Extremism in Sri Lanka includes both academic and policy implications.

Keywords: *Violent Extremism, Counterterrorism, ISIS, NTJ, LTTE, Salafi Jihad, Radicalisation, PCVE*

Introduction

Violent extremist groups that enforce radical ethno-religious and ethno-nationalist ideologies are changing the face of warfare across the world. Even though religious ideology has been an empowering force, the individual, contextual and structural drivers of radicalization leading to violent extremism play a significant role in strengthening homegrown and transnational religious extremist groups.

Sri Lanka has experienced a gradual rise in Sinhala Buddhist ultra nationalist extremism and Islamist extremism following the end of three decades of protracted conflict in 2009 against the Liberation Tigers of Tamil Eelam (LTTE) separatist terror group. The 4/21 Easter Sunday attacks which was committed by a homegrown Jihadist network which was inspired by the global Salafi Jihadist movement advocated by ISIS is a testament to the national security implications which stem from not comprehensively addressing violent extremist ideology and the drivers of radicalization.

Much controversy and misconceptions revolve around the subject of Islamist extremism in Sri Lanka and the factors that fuel this social phenomenon. Jihadist ideology in Sri Lanka has evolved over time with the drivers of joining such groups changing periodically. Several contextual and structural factors arising from local, geopolitical, economic, historic and cultural fault lines have created a conducive environment for individuals to be susceptible to the process of radicalization, making way for Islamist extremism to breed in the country. Formulating policy without a clear understanding of the root causes and the drivers of Islamist extremism in Sri Lanka can potentially create a precedent which would lead to communities being

polarized, stigmatized and individuals being pushed towards radicalization, which in turn will lead to a vicious cycle of violent extremism and internal conflict.

Methodology

This research has taken a qualitative approach which draws on insights from first-hand accounts and existing literature in order to provide an empirical analysis on the drivers of Islamist extremism in Sri Lankan. This paper is not intended to offer generalized conclusions, but instead outlines a framework for future analysis and to help inform policy deliberations. This paper is published at a time when the world is facing all forms of ethnic and religious violent extremism and aims to identify the past and contemporary drivers of Islamist Extremism in Sri Lanka.

Analysis

A. Overemphasis on the ideological driver

The religious ideological driver of violent extremism has often been hyped and politicized leading to the psychological, contextual and structural drivers being eluded by policy makers and security strategists. Apart from Islamist extremism which gained global prominence following the 9/11 terror attacks, many countries are facing their own security challenges from violent extremist groups stemming from almost all major religions across the world.

A factor which remains certain about groups such as ISIS, Al-Qaida, Taliban, Boko Haram or even the National Thowheeth Jama'ath is that these groups commonly adhere to the ideology of Wahhabism which is the conceptual foundation of Salafi Jihad groups. Wahhabism is a puritanically radical and distorted form of Islam which originated in Najd province of modern-day Saudi Arabia during the early 18th century (Commins, 2006). A majority of Islamic scholars have denounced Wahhabism due to its radical and intolerant practices. Islam which includes several denominations and sects around the world is adhered in many different forms. There are many militant groups that follow the Islamic faith that are engaged in primarily local conflicts which is more aligned to a political ideology which is in contrast to the radical ideology of Salafi Jihadists.

Salafi Jihadist groups which remains decentralised to some extent can be categorised as; Islamic State and its provinces, Al-Qaeda and its affiliates, Other Groups (independent Salafi Jihadist organizations such as Ahrar al-Sham, Afghan Taliban, Tehreek-e-Taliban, Lashkar-e-Taiba, Tehreek-e-Taliban Pakistan) and Inspired networks and individuals (CSIS, 2018). Even though these groups follow the same Jihadist ideology, the factors that lead to an individual joining these groups will differ.

Despite ideology and the search for either a religious or ethnic identity being the key driving force of all ethnic and religious violent extremist groups, they are certainly not the primary and only factors that drives radicalisation which in turn leads to violent extremism. Many Jihadist groups have strong political goals and these groups use religion as a tactic designed to conceal their political objectives and to boost popular support. Since the end of the Cold War, religion and ethnic identities being used as the justification to commit acts of terrorism have become a prevailing global security challenge (Hoffman, 1999). Some scholars have asserted that religious violent extremism is often influenced by geopolitical factors (Rogers, 2007; Juergensmeyer, 2004).

Lydia Wilson, a research fellow at the Centre for the Resolution of Intractable Conflict, University of Oxford, in her interviews with captured ISIS combatants asserted that a majority of Jihadists were 'woefully ignorant about Islam and have difficulty answering questions about Sharia law, militant jihad, and the caliphate' (The Nation, 2015). Counterterrorism expert, Dr. Bruce Hoffman argues that religion is used as a means of communication in contemporary terrorism (Religioscope, 2002).

These finding by experts and scholars in the field of violent extremism debunk the longstanding myth that ideology is the primary and only factor driving religious violent extremist groups.

B. The catalyst
The factors that influence an individual to join the Salafi Jihadist movement back in the 1980s differed greatly to those joining groups such as Al-Qaida in the wake of 9/11 or ISIS in recent times. In the same manner the impetus for an individual from the U.S. or a Western state to join ISIS would greatly differ from an individual who lives in the theatre of conflict in Iraq, Syria or Afghanistan. The rise and growth of violent

extremist groups have often been defined by catalyst or trigger events which creates a space for individuals to turn towards violence. The experience of a 'catalyst event' along with a broad socialization process and exposure to propaganda which can motivate an individual to join a terrorist organization is a key stage in the evolution of a suicide bomber (Gill, 2007).

During the Soviet Invasion of Afghanistan in the 1980s, Cold War geopolitics culminated with Iran emerging as a theocratic Shia state following its revolution were catalysts that empowered the Wahhabi ideology of the Mujahideen combatants and their foreign fighters. The U.S. was viewed as a key ally that provided arms, training and funding to the Mujahideen, while the Soviet Union and communism was viewed as the enemy of Islam. Factors related to the U.S. influence in the Middle East and their close alliance with Israel in the region along with local grievances in the Arab states helped turn the ideological tide of Al-Qaeda who later focused on targeting the U.S. and their allies.

Similarly, the Iraqi invasion which led to the overthrow of Saddam Hussain's secular Ba'athist government, insurgency against the Shia Muslims in Iraq, the Arab spring and the Syrian conflict can be viewed as catalysts or trigger events which helped spawn and grow ISIS.

The LTTE ambush on the Sri Lanka Army patrol unit Four Four Bravo which led to the death of 13 soldiers which was eventually followed by the 1983 Black July riots was a catalyst that strengthened the cause advocated by the LTTE which emerged as one of the most sophisticated terrorist groups in modern times. The 1983 riots were a defining moment for the LTTE to recruit thousands of Tamil civilians by amplifying the grievances of the Tamil community and justifying armed violence and terror in the name of liberation.

When a state is faced with deeply existential contextual and structural issues, social and political trigger events act as catalysts which can strengthen the resolve of violent extremist groups to justify their reasons to use violence and recruit combatants for their cause. Many of these events often emerge from internal conflict, political upheavals, social injustices and marginalization of communities. These events have played into the hands of violent extremist groups which seek to take advantage of such catalysts to transcend into a more dominant position which would enable these groups to boost their support and recruitment drive.

B. Radicalization is a process

There is no single profile common for a violent extremist as those who are radicalised come from diverse social backgrounds, education backgrounds, socio-economic classes, genders and age categories.

When examining the 4/21 Easter Sunday bombings, some of the perpetrators were from affluent backgrounds and have received higher education at reputed universities overseas while the others were from a war battered region that was under the grip of extremism, which proves the fact that there is no common profile to identify a violent extremist suicide bomber. Individuals who join Salafi Jihadist or any form of religious violent extremist group have gone through the process of radicalisation.

Radicalisation is a process which occurs based on what is identified as 'push' and 'pull' factors. Push factors are the conditions conducive for violent extremism to breed and the structural context from which it emerges. The pull factors are the individual motivations and processes, which transforms ideas and grievances into violent extremist action.

Push factors	Pull factors
Alienation, isolation and identity question	To have a sense of belonging within a particular group
Feeling your "in group/ community" is under attack	Belief that it's a spiritual or sanctified purpose; creating a utopia
Feeling that larger powers are not doing much to stop discrimination and attacks	Empowerment: adventure, humanitarian cause, die a martyr
Polarization, discrimination and lack of integration among communities	The desire to change the status quo
Social and political injustice	

Radicalization leading to violence may take diverse forms depending on the context and time

period, and it will be associated with different causes or ideologies. Identity and religion are often intertwined in the ideology of violent extremist groups and the perceived threat to an identity is a key aspect in religious extremism due to religion having the unique ability to serve identity needs (Seul, 1999). The fundamental facets embedded in non-Western religious extremist groups is that such groups project the feeling that the growing influence of globalisation, secularisation, and Westernisation are undermining traditional non-Western values and ways of life (Moghadam, 2005). The identifiable precursors of home-grown radicalisation are: socio-political alienation, religiosity and globalisation, and the reaction to foreign policy (Wilner and Dubouloz 2010).

B.   D. Dilemma of the War on Terror
 The U.S. has spent 5.9 trillion U.S. dollars on the global counter terrorism campaigns since 9/11 (Watson Institute, 2018). In 2015, ISIS, Boko Haram, the Taliban and Al-Qaeda which are the top four Salafi Jihad terror groups were responsible for 74% of all terrorism related deaths across the globe (Global Terrorism Index, 2016) and consists of over 230,000 Salafi Jihadist combatants that are spread across 70 countries (Centre for Strategic and International Studies, 2018). These facts clearly indicate that the U.S. is facing major setbacks and strategic challenges in its War on Terror campaign.

Despite military setbacks and loss of territory, Salafi Jihadist groups such as ISIS and Al-Qaida are still capable of influencing their target audience through the use of strategic communication campaigns (NATO StratCom COE, 2015) and are able to inspire individuals and independent networks to join their cause.

Two fundamental factors which led to the failure in the War on Terror was because the U.S. policy makers had inflated assessments of the terror threat, which led to an expansive counterterrorism campaign and the adoption of an aggressive military intervention strategy which did not focus on addressing the root causes (Thrall and Goepner, 2017).

The U.S. counterterrorism strategy have also led to Islamophobia and hate crimes against the Muslim community, which is a significant driver towards homegrown radicalisation, giving rise to lone wolf terrorists and inspired networks. The

current trend of violent extremism has led to many states realigning its counter extremism strategy to win the hearts and minds of communities affected by violent extremism in order to combat the factors that lead to radicalization.

E. The evolution of Jihadists in Sri Lanka

The formation of Jihadist militant groups in Sri Lanka can be viewed as a byproduct of three decades of conflict with the LTTE which evolved during several timeframes. As Salafi Jihadist terrorism was taking shape around the globe, in 1990 the LTTE commenced a campaign of terror against the Muslim population in Sri Lanka's north and east. The continuous attacks on the Muslim community in the region by the LTTE led to the formation of these militant groups (Sunday Times, 2009).

The LTTE perceived the Muslims living in the region as collaborators with the state and a hindrance to their objective of establishing a mono-ethnic Tamil homeland. Many analysts and scholars have viewed the atrocities committed by the LTTE against the Muslim community in the north and east as acts of ethnic cleansing.

In August, 1990, the LTTE massacre of 147 civilians including children that had gathered for congregational prayers in four mosques in the Eastern town of Kattankudy (Amnesty International,1991) was the first catalyst which laid the foundation for armed Muslim militancy in the East. The LTTE went on to commit atrocities in predominant Muslim villages in Batticaloa, Mulliyankadu, Ampara, Eravur, Vavuniya, Palliyagodella and Punani.

The second event which acts as a catalyst for the rise of Jihadist militancy in the island was the overnight expulsion of approximately 72,000 Muslims in the North by the LTTE which took place in October 1990. The ramifications of the atrocities committed by the LTTE consequently led to the government establishing the homeguards with some of the Muslim homeguards in the East deserting their posts and forming into small militant groups (Hoole, 2019).

The political landscape also played a significant role in fomenting militant sentiments among the communities. Eventually, many Islamic preachers who had been influenced by Wahhabism in the Middle East upon returning to Kattankudy and

parts of the Eastern Province, commenced a drive to provide the conflict a religious dimension, which gave birth to more radicalised Jihadist militants. Many of these Jihadist groups were receiving funding from Middle Eastern organisations through their Wahhabi preachers and local political sponsors (Sunday Times, 2009).

Even though the global Salafi Jihadist movement was gaining prominence following the 9/11 attacks, the Jihadist militant groups in the East identified as Mujahideen, Knox Group, Osama Group, Jihad Group and Muttur Jetty Group C. viewed the LTTE and secular Muslims in the region that followed other Islamic sects as a greater threat to them than the U.S. and its coalition partners that were fighting against Al-Qaida and other Salafi Jihadist groups across the world. The fact that local Jihadist groups were initially being fueled by local drivers and not the global anti-Western Jihadist drivers is clearly established in a confidential U.S. diplomatic cable disseminated on July 17, 2003 by a senior diplomatic official who revealed that the Muslims in the east have formed 'anti-Tamil Tiger armed groups' and the very limited Islamist feeling that there is in Sri Lanka flows from the Muslim community's fear of the LTTE and not from the anti-U.S., anti-Israel theme which is widespread in the Middle East (Colombo Telegraph, 2013; Wikileaks, 2013).

Groups such as the Sri Lanka Thowheeth Jama'ath (SLTJ) which maintains close affiliation to the Tamil Nadu Thowheeth Jama'ath were actively engaged in promoting Wahhabism in the eastern province (Dharmawardhane, 2015). Zahran Cassim's NTJ was a breakaway group of SLTJ. By 2009, Zahran Cassim who was the propaganda secretary for the Thowheeth group confessed in an interview that he had a base of over 2,000 followers who are part of his congregation, which serves as the ideal platform for radicalisation and recruitment (Sunday Times, 2009).

During the final years of Sri Lanka's war and during the immediate post-war period, the ensuing internal divisions which were intensified by the influence of Wahhabism frequently led to sectarian violence with the Jihadist groups perpetrating attacks on the Muslims who refused to adhered to their ideology. On several occasion the Jihadists backed by the Thowheeth Jama'ath preachers conducted attacks on moderate

Muslims in Kattankudy which led to the destruction of Sufi mosques, Sufi meditation centers and property which belonged to followers of other Islamic sects in the East resulting in many being displaced and forced out of the region (Fuard, 2006a; Fuard, 2006b; Kamalendran and Fuard, 2009). Following the sequence of events related to extremist violence perpetrated by the Jihadist militants in 2009, the government issued an amnesty for Jihad militants in the East to surrender their weapons to a Mosque in Kattankudy (Sunday Times, 2009).

F. The emergence of transnational Jihad

Globalization, advancements in technology, communication and transportation has helped expand the influence, scope and range of terrorist ideologies and their narratives, thus giving rise to transnational terror groups such as ISIS and Al-Qaeda which operates beyond borders. The advancement in information technology and the ability for ISIS to exploit social media led the extremist group to gain a large following, gain support from local militant groups and inspired networks that pledge their allegiance to ISIS leader at the time, Abu Bakr al- Bagdhadi.

Zahran Cassim and his followers from NTJ is a classic example of a group that had been inspired by the ISIS ideology of establishing a Caliphate. Many of those who have been radicalised, recruited or inspired to become a Jihadist extremist perceive that Islam is under threat from the U.S. and its allies and believe that it is their divine duty to join ISIS in their fight against their enemies in order to establish a pan-Islamist theocratic state governed by Sharia law interpreted by Wahhabism.

With the rapid advancement in information communication technology, many of these local Jihadist militants and Thowheeth preachers such as Zahran Cassim began to have easier access and a steady flow of information on Salafi Jihad across the globe. Concurrently, they were able to create a large gathering of followers by propagating the ISIS ideology and their brand of extremism which eventually led to the emergence of Sri Lankan nationals joining ISIS either as foreign fighters or as inspired homegrown violent extremists.

According to the ISIS propaganda magazine – Dabiq, several Sri Lankans had joined ISIS to fight in Syria and it was also reported that a Sri Lankan national from Kurunegala had been killed in an

air strike while fighting for the Islamic State (Asian Mirror, 2015; Daily Mirror, 2015). In 2015, it transpired that ISIS was on a drive to radicalize and recruit youths from India, Bangladesh and Sri Lanka, which further validates the 2016 U.S. Country Report on Terrorism which indicated that intelligence agencies were on full alert against the possibility of ISIS or its affiliates emerging in the island.

Following the conclusion of the war in 2009, the emergence of radical Sinhala Buddhist Ultranationalist extremist groups such as Bodu Bala Sena (BBS), Sinha Le, Sihala Ravaya, Mahason Balakaya and Ravana Balakaya that were gaining momentum began to create ethnic tension by actively engaging in hate speeches and attacks on the Muslim community while inciting violence against other ethnic and religious groups.

The 2014, BBS attack on the Muslim community in Aluthgama and Dharga Town following a racially charged hate speech was a key trigger event which set the precedence for a sequence of anti-Muslim violence leading to polarization of communities. The actions of

groups such as BBS, Sinha Le and Mahason Balakaya paved a path for secular Muslims to be more easily approached by Islamist extremist groups such as NTJ that were able to project these events to their advantage.

The 2018 anti-Muslim riots which led to widespread attacks on the Muslim community in Kandy and Ampara which was orchestrated by the Sinhala ultranationalist extremist group, Mahason Balakaya was a key trigger event which acts as a catalyst which created an environment for extremism to breed and also for Sri Lanka to become influenced by transnational Jihadist extremism which was sweeping across the globe. The riots presented itself as an opportunity for Salafi Jihadist advocates in the country to gain a support base by projecting the image of widescale persecution of Muslims. The Buddha statues in Mawanella which was vandalized in 2018 by Thowheeth extremists was a result of the anti-Muslim riots which created further tension amongst communities.

Several months after the vandalizing of the Buddha statues, on Easter Sunday, April 21, 2019, Zahran Cassim and his outfit from NTJ detonated multiple suicide bombs in hotels and churches in

the island which resulted in the death of 269 people. In the wake of the 4/21 attacks, the lack of a proper state response, lack of accountability and identity politics created an environment which led to further attacks on the Muslim community.

Islamic State which has achieved fluidity and absorbed followers from around the globe, is a model of the new face of terrorism that can operate outside of any centralizing force or command structure (Vidanage, 2019). With the reach and influence ISIS currently possess, the structural and contextual drivers of Islamist extremism will further reinforce Salafi Jihadist thinking within any polarized group that is susceptible to radicalisation.

Conclusion

The mindset of perceived injustice, discrimination and oppression is what motivates violent extremists to take up arms and conduct asymmetric attacks primarily on soft targets. Once a violent extremist evolves into a fully-fledged terrorist, they view themselves as freedom fighters or holy warriors who are fighting a just war. Any form of brutal crackdown that leads to polarization, social stigma or political repression of the broader community will ignite violent extremist sentiments.

The drivers of Salafi Jihadist extremism in Sri Lanka can be framed within two distinct periods that reshaped and redefined Jihadist militancy and terrorism in the island. The timeframes in which Islamist extremism evolved in the island which emerged in two separate waves can be categorised as;

a). Local Sectarian Jihadist Wave (1990- 2010)

b). Transnational Jihadist Wave (2014 to date)

The Local Sectarian Jihadist Wave emerged following the ethnic cleansing of Muslims by the LTTE in 1990 and lasted up until 2010 in which many of the Jihadist militants were disarmed and demobilized. The main drivers of the local Jihadist groups operating in the east under the direction of Thowheeth preachers were: (*a*). the threat to the Muslim community in the region posed by the LTTE (*b*). ethnocentric political influence in the region (*c.* the goal of maintaining ideological dominance over other Islamic sects (*d.* religious factionalism (*e.* sectarian violence (*f*). political repression during the period of

conflict with the LTTE. The socio-economic drivers similarly played a crucial role in fueling extremism during this period since many who were financially affected by war were vulnerable to radicalisation.

The Transnational Jihadist Wave emerged following the end of the war in 2009 and was reshaped as a result of the actions of groups such as BBS and the rise of ISIS. Post-war Sri Lanka was experiencing an escalation in the forms of acute, chronic and entrenched religious violence perpetrated by ultranationalist religious extremists that were primarily targeting the Muslim and Christian communities in the island (Gunatilleke, 2015; Gunatilleke, 2018). The 2014 anti-Muslim riots in Beruwala and Aluthgama was the starting point of the evolution of Jihadist sentiments in Sri Lanka with groups such as BBS propagating an Islamophobic narrative. The 2018 anti-Muslim riots which erupted in Ampara and Kandy was the primary catalyst which led to a renewed momentum of Salafi Jihadism in the island.

The rise in Sinhala Buddhist extremist sentiments against the Sri Lankan Muslim community coincide with the ISIS expansion in Iraq and Syria, which fueled a global Islamophobic discourse (Gunasingham, 2019; Fernando, 2018). Sri Lanka is experiencing a part of the global development of transnational Salafi Jihadist terrorism which has evolved from its previous local militant roots with individuals and networks being inspired by the transnational Jihadist discourse. The main drivers of the Transnational Jihadist Wave are: (*a*). the escalation in identity politics (*b*). aggressive grassroot propaganda campaigns conducted by Thowheeth extremists and Sinhala Buddhist ultranationalist extremist groups such as BBS (*c*). renewed ethnocentric and ultranationalist fervor following the end of the war in 2009 (*d*). the state's failure to prevent communal riots and protect the minority religious communities within the country (*e*). polarization amongst communities as a result of growing Islamophobia promoted by rightwing ultranationalist extremist groups (*f*). the rise of ISIS and the call for a global caliphate (*g*). the regional political influence of former jihadist militants (*h*). the influence of events taking place in the Salafi Jihadist realm in the global context. Social media and advancements in information technology has been a significant driver in fueling violent extremist groups that have exploited communication platforms to conduct hate speeches and to disseminate misinformation campaigns.

The construction of group perceptions stemming from perceived collective cultural threats and perceived threats to ethnic identity would lead to increased ethnocentrisms in turn leading to conflict and tension amongst communities. There is an urgent need to understand the global security landscape, win the war of narratives and to invest on intelligence and technology which will effectively help counter the threat of transnational extremist terrorism, since Sri Lanka has become a victim to the polarization of narratives coming from both Islamist extremists and Sinhala Buddhist extremists (Vidanage, 2019). In Sri Lanka, disinformation campaigns and perceived threats to ethnic and cultural identities have impeded the nation's ability to build reconciliation, cohesion and national unity. The threat perceptions have often been amplified by both Sinhala extremist and Islamist extremist elements within the country and these perceptions need to be addressed by more moderate and secular voices.

The government, political parties, civil society, media, NGOs and moderate religious leaders need to confront the drivers of the current wave of violent extremism by winning the hearts and minds of the all communities in the island through a unified national narrative. In confronting the threat, the government should not mishandle the issue, adding impetus to radicalisation which could lead to Sinhala Buddhist extremist groups such as BBS or politicians from exploiting a volatile situation to advance their political agendas (Jayasuriya, 2015).

Military interventions and legal sanctions have certain limitations when facing violent extremist groups that incite or perpetrate acts of violence. A solely military response to address the drivers of violent extremism have proven to be ineffective and counterproductive in neutralizing the threat posed by Salafi Jihadists in the strategic domain. In order to win the war against Islamist extremism, it is fundamentally essential to counter these groups within the ideological and online battle spaces (Fuard, 2018) while addressing the drivers which lead to radicalisation.

Therefore, a strategy aimed at Preventing and Countering Violent Extremism (PCVE) should emphasise more on why people are joining violent extremist groups? and how they are being radicalised? In order to neutralize the threat in the local context, the drivers of Jihadist extremism should not be viewed from merely a Western liberal perspective, but should be viewed from a Sri Lankan perspective based on past and contemporary issues which shaped Jihadist militancy and terrorism in the island.

If the drivers of violent extremism are not addressed, Sri Lanka could face the same strategic failures in curtailing all forms of ethnic and religious extremism which many powerful nations have faced. The absence of an inclusive framework to prevent and counter violent extremism have been a major contributory factor which have led to many nation states being ineffective in addressing extremist ideology, narratives and radicalisation.

Racism, hate, bigotry and intolerance towards communities which are the main elements that fuel violent extremist groups is now being propagated to a much larger global audience than ever before. Fake news and disinformation campaigns disseminated by violent extremist organizations are changing the global security landscape. The French Philosopher and writer, Voltaire who once wrote, "Those who can make you believe absurdities, can make you commit atrocities," are words which resonate even today. Social media has enabled extremist groups to disseminate conspiracy theories, fake news and misinformation campaigns which have sowed the seeds of division amongst communities and are fueling the flames of hatred and bigotry, which has become one of the greatest global and national security threats of our time. Sri Lanka needs to adopt a multidimensional and integrated PCVE approach which would counter violent extremism in the ideological, psychological, social and online domains. As nation states are challenged by hybrid warfare waged by both state and non-state actors, it is important to keep in mind that you cannot defeat tomorrow's violent extremist by applying yesterday's strategies.

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Re-thinking the Sri Lankan Approach of Countering Islamist Violent Extremism

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Abstract- With the rise of Islamic State (IS), South Asian terrorist groups have been vehemently influenced since many of the terror groups such as Tanẓim Ansar al-Tawheed fi Bilad al-Hind, Tehreek-e-Khilafat, Jundullah etc. have pledged allegiance (bayath) to IS in 2014 and 2015. Also, in 2015 Islamic State Khorasan Province (IS-K) was established in the Afghan-Pak border to enhance the tentacles of IS. Besides, many of the South Asian individuals have been stimulated to join as foreign fighters in Syria and Iraq or to conduct home-grown attacks influenced by IS ideology. After the demise of the IS in Iraq and Syria in 2019, IS has focused on the Indian Subcontinent due to the continuation of violence in the region which assist to foster new dimension of terrorist threats in the region. In such context, the nature of the Islamist extremism in Sri Lanka could be defined as a problem which has occurred in the 'periphery' (international) but relates to the 'core' (domestic) due to the created fault lines in the local context. Within such context, this research intends to highlight four aspects in dealing with Islamist extremism in Sri Lanka: 1) Importance of understanding the changing nature of Islamist extremism in the periphery 2) The influence of Islamist extremism in the core 3) Mutually exclusiveness of the growing Islamist extremism with the counter approach implemented in Sri Lanka 4) Reasons for such mismatch in counter approach and the problem of countering Islamist extremism in Sri Lanka. Finally, it has been highlighted in this research that, in order to counter the threat of Islamist extremism in Sri Lanka, there should be a mix approach of enemy-centric strategies and population centric strategic due to the volatile nature of center of gravity in Islamist extremism.

Keywords: Islamist Extremism, Counter Violent Extremism (CVE), Enemy/Population Centric Approach, Reciprocal Radicalization, Cumulative Extremism

Introduction

Voice of Al Hind – Issue 3 of Ansar ul Khilafah in Hind emphasize the fact that Islamic State (IS) is trying to provide the necessary ideological support to gather the scattered Islamist extremists to function through regional cooperation under specific regional coordination and

leadership in South Asia. Within such context, IS is in the position of developing regional cooperation in South Asia due to common culture, belief, values and sects among the Muslim population in this region. One of the reasons for the failure of IS was that, they tried to recruit individuals from different geographical locations and compressed them in to one particular territorial space and controlled them through brutality and fear, which affected governance of the so called 'Caliphate'. Learning from past experiences, it is evident that they have changed their modus operandi to articulate 'regional hubs' while making the Islamist extremists mutually inclusive through continuous propaganda and recruitment in these regions, especially focusing on capitalizing the tensed political environments in South Asian countries.

Therefore, with the focus of IS in South Asia, this reach questions the approach of countering Islamist violent extremism in Sri Lanka, highlighting that threat of Islamist extremism and the response from the Sri Lankan security apparatus are mutually exclusive without any correspondence to each other. Hence, this research aims to highlight the importance of a possibly integrated Counter Violent Extremism (CVE) approach combining 'enemy-centric' and 'population-centric' strategies to deal with Islamist extremism, while comprehending the repercussions mounting from this threat to multi-cultural and multi-religious societies in Sri Lanka.

Problem Statement

The Sri Lankan government approach to countering Islamist violent extremism before and after the Easter Sunday Attack has not been adequate to deal with the growing Islamist violent extremism in the country.

Sri Lankan CVE approach lack in identifying the influence of global and regional Islamist extremist climate and its applications to Sri Lanka and, therefore limited to only monitoring the local Islamist extremists, instead linking them with the international phenomena. Mostly the, CVE strategies have been incorporated with the counter terrorism tactics which were used in defeating the Liberation Tigers of Tamil Eelam (LTTE), whereas the problem of Islamist extremism is different in nature to the issue of ethnic separatism. Mostly, the problem of Islamist extremism is treated as a domestic issue separating it from the regional and global developments. Therefore, the problem, the repercussions and the solutions have been miscalculated since the problamatization of the issue has occurred inversely. Therefore, there is a mismatch between the growing influence of Islamist extremism in Sri Lanka and the approaches of CVE implemented by the Sri Lankan government to contain the threat.

Growing Islamist Violent Extremism In The Periphary

The threat of Islamist violent extremism is flouting and has become more globalized due to universalization of the concept of 'caliphate' by different jihadi groups, mainly by IS. Since, the downfall of IS in Syria and Iraq, IS has narrated its ideology to instigate lone-wolves and thereby make the threat of jihad more 'fluid' than ever. While, liquefied jihadi structure is encouraging lone-wolves to perform, IS physical influence in Sahel (Islamic State of Greater Sahara) has increased, depicting a shift of its militant capability and frail counter terrorism strategies implemented in the terrain of Mali by French led allied forces. Also, IS aligned cyber groups are intensely sharing posts against the Sri Lankan deployment to Mali which post a threat to the Sri Lankans residing inside and outside of Sri Lanka, mainly the security personnel.

On the other hand, it can be assumed that IS is reverting its basics by trying to reorganize its longstanding wilayaths which have become malfunctioned for some time. By doing so IS is trying to depict that it is still active and intact even after the death of Baghdadi. From an analytical perception, open call for jihadists to join the ongoing battle fields will bring negative impact to all the conflict zones which are fighting against jihadist, not only territories with the threat of IS. This is an indication where jihad is becoming globalized rather than confined to one particular organization or group of individuals. Under such circumstances likeminded jihadi individuals who have the urge to fight and die for Allah will join any group which serves that purpose around the world. Therefore, it will be difficult for the security and intelligence community personnel to track the jihadists and to maintain the security status quo which will be much fragile since there is a long list of jihadi organizations around the world functioning and fighting for a common cause. Also, containment of IS will be difficult in a fluid jihadi structure with promotion of unusual innovative attacking styles.

Complexity of Islamist Extremism in South Asia

The complexity of the Afghan security due to the presence of Taliban, Al – Qaida (AQ) and Islamic State of Khorasan (IS-K), is directly influencing the security landscape of South Asia including Sri Lanka. The presence of foreign terrorist fighters in Afghanistan might cross borders within the South Asian region and as mentioned in the 26th Report of the Analytical Support and Sanctions Monitoring Team Concerning ISIS, Al – Qaida and Associated Individuals and Entities, these fighters can infiltrate into the territories in South Asia through illegal channels and plan terrorist activities, which has also occurred in the past. However, such terrorists only being part and parcel of a violent group is queried since, 'jihadi' elements in South Asia are always manipulated by state actors such as India and Pakistan to fulfil their political agendas.

However, many individuals claim that Islamic State of Khorasan Province (IS-K) has cripples due the surrender of some of its fighters to the Afghan security forces in late 2019, yet, it has not become a reason for the demise of the IS-K. Proving this, 26th Report of the Analytical Support

and Sanctions Monitoring Team Concerning ISIS, Al – Qaida and Associated Individuals and Entities claims there are nearly 2,200 individuals remaining in the said terrorist outfit while the influence of IS has encroached vehemently to Kerala and Karnataka, India.

The anticipated cripple of IS-K was due to the re-organization of Taliban and their determination to turning Afghanistan in to an Islamic Emirate. With such development, Taliban will eventually gain momentum to rule while USA troops withdraw from Afghanistan. This will automatically give rise to jihadi organizations in the region particularly AQ and its affiliates. Also, other likeminded jihadists who claim for a caliphate will be attracted to Afghanistan or to the jihadi organizations breeding from this ground. Eventually, Afghanistan being the center of gravity of modern jihadism, will become a ground of concentration of jihadi ideology under the patronage of Taliban, AQ and IS-K. Hence, predicted fall of IS-K will not sweep away the threat of jihadism in Afghanistan. In fact, it will transform to a full-fledged Jihadi territory under the banner of Taliban which will support many other jihadi organizations in the Indian Subcontinent including AQ and the affiliates. Therefore, the threat of jihadism remains constant while it can even increase in the Indian Subcontinent when Afghanistan falls into the hand of Taliban.

On the other hand, it is not yet depicted that AQ, Taliban and IS-K will enter into a 'marriage of convenience', due to constant attacks launched by Taliban in areas of IS-K in Afghanistan. In fact, IS-K has portrayed their dislike in linking with Taliban and AQ, stating that both are 'agents' 'puppets' of the enemies of Allah (USA). However, Taliban will continue to link with AQ due to the longstanding relationship between the two groups. Hence, IS-K will remain as a distinct jihadi element while Taliban and AQ share a common bond mainly due to shared financing capabilities and safe-haven inside Afghanistan.

Volatility of Islamist Extremism In Sri Lanka

There is a significant change in the method and scale of attacks mainly encouraging the lone wolves in South Asia to utilize knives, vehicles, petrol bombs etc through social media platforms such as Telegram, WhatsApp, Rocket. Chat etc.

These attacking methods are commonly used by IS, yet what makes the South Asian region including Sri Lanka vigilant is that the constant emphasis on such attacks in South Asia by the IS, can be heard by the domestic/ regional extremists who can apparently transform into lone wolves and, such activities can be turned into a common trend within South Asia. Hence, the lucrative propaganda utilized and disseminated in social media encourage small scale and low intensity attacks by IS militants or any other individual, making the terrorist think about attacks more innovatively. These individuals need not to be a part of a hierarchically governed terrorist outfit, making the threat of Islamist extremism more fluid than ever.

Also, the problem of returning Foreign Terrorist Fighter (FTFs) to the South Asian region, have posted a threat to peace and security of the countries in this region. The problem of FTFs is that, it is difficult to identify them, if the relevant departments do not have information of these individuals. However, returning fighters could engage in 'Lone Wolf' activities or form networked cells of like-minded individuals while systematically penetrating the radicalization to the Muslim society. This was depicted by how Sadiq Abdul Haq, a trained returnee from Syria has influenced some individuals from the Islamic Student Movement of Jammat –e – Islami (JI) to get engage in an extreme activity in Sri Lanka in December 2018. Such returnees are capable of revitalizing moribund jihadist groups by joining them and bringing new skills. They can also vent their rage against societies they perceive to have failed them or participated in 'oppressing' Muslims.

Within such context, various Sunni groups such as JI, Ceylon Tawheed Jammat (CTJ), Sri Lanka Tawheed Jammat (SLTJ) etc. and various individuals who do not align to any such organization, promote violent extremism through the 'divide and rule concept'. Due to segregation within Islamic population itself, there is high amount of conversions being promoted especially by the Shia Muslims within Islam. In this context, due to the ideological differences, sectarian clashes can be a reality within the Sri Lankan territory while this issue can be promoted by Sunni terrorist organization like IS

and its supporters in the South Asian region to recruit more individuals to their organizations.

Within the post Easter Sunday security atmosphere, the individuals who aligned with Tawheed ideology can be more vulnerable due to physical and mental marginalization in the community. Also, they can be exposed to online-silent radicalization. Therefore, such a dynamic milieu has the potential of creating a movement of like-minded people overtly or covertly which will disrupt the prevailing security set up in Sri Lanka.

Besides, with the growing Islamist extremism in Maldives, Sri Lanka can be utilized as a 'transit hub' by external extremists, while Southeast Asian terrorists who belong to organizations such as Jammat Ansarut Daulah (JAD) will utilize Sri Lanka as a 'transit point' to reach Syria, Iraq or Afghanistan.

Also, the most of the Madarasas functioning in Sri Lanka are not properly registered and covered by a legal framework/mechanism. Besides, mostly the curriculums of these Madarasas are obscure and the presence of outsiders are limited and unsolicited by the Madarasa authorities. Therefore, the activities are not depicted or exposed to the outside world. In such circumstances, there is a risk of the individuals in these Madarasas been exposed to radicalization due to unauthorized curriculum and individual ideologies penetrated into the minds of the students by the so-called teachers or clerics.

Besides, Muslim women adhering into radicalization has become a reality in the Sri Lankan context when it was exposed that women have also participated the training sessions of Zaharan Bin Hashim, who is allegedly known as the Easter Sunday mastermind in 2019. Therefore, women focusing on jihadi ideology need to be considered as a threat due to their nature of strong persuasion in ideology in any given circumstance and the method that they can influence the children to become 'jihadi cubs' and their husbands to become 'mujahideens'. One the other hand, the services that they can render to the jihadi world are massive, since they can certainly be propagators or fundraisers or professionals catering specific services and expertise. Most importantly, they can be utilized as suicide members.

Within such a volatile situation, it is questionable whether it is possible to counter the influence of Islamist extremism in Sri Lanka with the existing strategies and tactics.

Variation of Center of Gravity in Islamist Extremism and Disparity of the Counter Approach

According to Lucía Martínez Ordóñez enemy-centric tactics are opposite of population-centric approaches in counterinsurgency. She further explains that "the enemy-centric approach states that it is the insurgents' defeat that will cause their collapse" while population-centric approach focuses on "strategies to win the 'hearts and minds' of the population". While learning from the failing enemy-centric approaches in Iraq, in 2009 US General Stanley McChrystal stated that he intends to win the Iraqi insurgency by convincing the population rather than killing the enemy. Yet, the success of the population-centric counter insurgency strategies implemented in Iraq is highly debatable following the current context. However, winning hearts and minds of the population should not be undermined when analysing the success of British in winning the Malayan insurgency. However, it is time-consuming than the enemy-centric approach but with a smaller number of casualties.

Extracting from these two approaches, Sri Lanka's experience in counter terrorism has been more of 'enemy centric' than 'population centric' especially during the time of the Eelam War IV with the LTTE. Therefore, the threat of Islamist extremism which replaced the menace of LTTE after 2009, was treated in the same manner, rather than identifying the actual center/centers of gravity in dealing with this newly emerged problem of Islamist extremism within the country.

Daniel J. Smith, Kelley Jeter, and Odin Westgaard argue that Eikmeier's application of center of gravity has recognized the leadership of IS as the "strategic center of gravity". In the contrary, even if Abdullah Orokzai a.k.a Aslam Farooqi, the local IS leader in Afghanistan was arrested on 5th April 2020 and Baghdadi was killed in October 2019, the threat of jihadism has not halted with the execution of terrorist leaders leaving a question whether actually the 'leadership' is the only significant 'center of gravity' in jihadism. If it was

the actual 'center of gravity' then by killing Bin Laden, Baghdadi and arresting of Abdullah Orokzai should have made a difference in the landscape of 'modern terrorism'. Yet, it is not the situation. That means there should be a different 'center of gravity' or multiple centers of gravity' which transform potential individuals to become extremists. Hence, 'ideology' becomes the other important 'center of gravity' besides 'leadership' which drives the vulnerable Muslims to become martyrs and mujahideens under the banner of Islam.

It is evident that there is a misconception of identifying the actual 'centers of gravity' in fighting modern terrorism deriving from Islamist extremism. While the centers of gravity in modern terrorism appear as 'ideology' and 'leadership' hand-in-hand, national security forces are only hunting the heads of the leaders. Therefore, enemy centric approach in addressing Islamist extremism has not achieved its goal of limiting the expansion of the threat due to negligence of addressing the 'ideology' which speaks to the 'hearts and minds' of the people. This depicts that, while the terrorists are utilizing a mix approach of paralysing the enemy and winning the confidence of the Muslim population, the national security forces are only focusing on killing the opponent while leaving them to take patronage among their sympathizers. Therefore, the approach of the enemy and CVE approach of the security forces do not connect in equilibrium since both are driving in opposite directions. This is a universal problem and therefore, also applicable to Sri Lanka as well.

In this context, the Select Committee of Parliament to look into and Report to Parliament on the Terrorist Attacks that took place in different places in Sri Lanka on 21 April 2019, highlights the loop holes of intelligence collection mechanism. As a result, it asserts the incompetency of enemy-centric approach in dealing with the threat of Islamist extremism in Sri Lanka:

"It must be questioned as to why the Directorate of Military Intelligence (DMI) who had a strong network on the ground was unable to or chose not to inform the necessary parties of possible unrest on the ground and of the activities of Zahran and his allies including Army Mohideen"

Select Committee of Parliament to look into and Report to Parliament on the Terrorist Attacks that took place in different places in Sri Lanka on

21 April 2019 also recognize the fact that the intelligence mechanism of the country was unable to identify the dynamics of local and international environment thus lead to one of the major intelligence failure which killed 269 innocent people.

Discussion

Instead of introducing a systematic approach to countering Islamist extremism with the combination of 'enemy centric' and 'population centric' methods, government has considered on developing ad hoc activities to address this threat. For an example, Office of National Action Plan for Countering and Preventing Radicalization, Violent Extremism, and Terrorism under the Defence Ministry was established in 2019. Yet a systematic approach in understanding radicalization in Sri Lanka is yet to be implemented. Also, still there has not been a viable CVE strategy to de-radicalize the detainees of Easter Sunday attack and disengage the vulnerable Muslim individuals who can embrace Islamist extremism. Without understanding the root causes of radicalization and, try to balance the approach of CVE between enemy-centric and population-centric procedures, such above mentioned government mechanisms will be inefficient in dealing with rising threat of extremism and possibly may later seize to exist.

On the other hand, before and after the Easter Sunday attack, Government's approach in incorporating 'population centric' strategies in CVE mechanism was laborious due to the time-consuming manner of those procedures. The results of these soft approaches of 'winning the hearts and minds' of the population are reaped after extensive time and could not be therefore, utilized for political reasons. As a result, these approaches were provided with less consideration and implementation for political motives. However, in order to win the hearts and minds of the population; one should understand what makes the individuals become isolated within a political system. Absence of violence in post conflict states does not mean that they have full-fledged peace in replace. Rather contrary, the society will go through a 'competition for violence' by different elements and the vacuum will be filled by another violent group under the same banner or under a different categorization. Consequently, Sri Lanka is now experiencing a

similar phenomenon. The vacuum of violence created by the LTTE is now been replaced by the clash between Buddhist nationalism and Islamist extremism. As a matter of fact, "extremist groups fuel one another's rhetoric and/or actions, including violence" and the way in which one form of extremism can feed off and magnify other forms" in multi-cultural and multi-religious society like Sri Lanka, need to be analysed in detail. This process is known as 'reciprocal radicalization' by Professor Kim Knott, Dr Ben Lee and Simon Copeland. As professor Abbas explains, far right extremist groups are interested in claiming again for their country while Islamic extremist groups align with "global identity politics". The current context of Islamic phobia by the Buddhist nationals (majority) relates to the 'cycle of resistance' (Figure 1), occurring through escalation of fundamentalism both in majority Sinhala Buddhists and minority Muslims in Sri Lanka. The Sinhala Buddhist majority claims for the restoration of Sinhala Buddhist land and practices of the Sinhala culture while Islamic extremist relates to the exclusion/marginalization of the Islamic communities in democratic societies which relate to the global phenomenon.
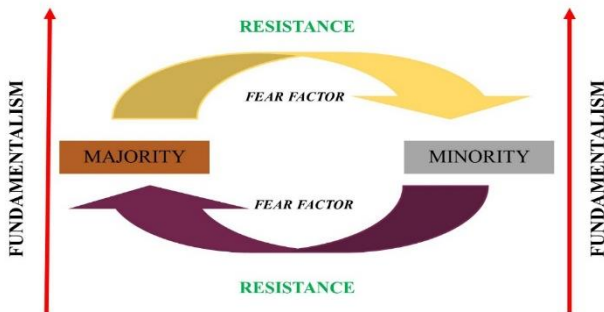

Figure 1. The Cycle of Resistance
Source: author

Even though Professor Kim Knott, Dr Ben Lee and Simon Copeland explain the meaning of reciprocal radicalization, they have not highlighted how this phenomenon is applicable in a multi-cultural and multi-religious society which has been exposed to violence for a period of time. Yet, while appreciating the definition provided by these scholars for reciprocal radicalization, this research emphasizes that, in the practice of unusual fundamental principles/practices which have not been previously highlighted by the Muslims in Sri Lanka, has provoked certain amount of 'fear' in the majority. Reciprocally this affects in increasing the fundamental rhetoric and practices by the Sinhala Buddhist against the

Minority. As a result, rhetoric or practices of one group feeds the extremist ideologies of the other group while resisting each other. Therefore, both the groups have engrossed in the process of radicalization through violent extremism while feeding one another. However, in order to solve this problem, the 'fear factor' needs to be address through strengthening the 'social contract' between the ruler/government and citizens. The above diagram explains 'the cycle of resistance' introduces as a model in this research to understand the reason for 'reciprocal radicalization' in the Sri Lankan society as a mean to counter the influence of rising Islamist extremism in Sri Lanka.

It is now evident that only by 'winning hearts and minds' of the Islamic population would not decrease extremism in the Sri Lankan society, instead issues related to Muslims and 'religious/ethnic others' need to be considered at the same time. Therefore, implementation of population-centric approaches should target multiple communities simultaneously.

Conclusion

With the changing landscape of Islamist extremism in the periphery, its influence has infiltrated in to the 'core' and the counter approaches to the threat is shaped accordingly. However, the problem of Islamist extremism and the counter approach to that problem are mutually exclusive in Sri Lanka. Hence, it is important to re-evaluate the approaches of countering Islamist violent extremism and establishing a systematic approach to CVE in Sri Lanka is needed to contain the Islamist extremism while considering the nature of extremism and application of enemy-centric and population-centric approaches to the security context in Sri Lanka.

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Metamorphosing Sri Lankan Old School Military Thoughts by Incorporating Artificial Intelligence to Face the New Normalities

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Abstract - The ongoing wave of 4th Industrial Revolution (4IR) marks the dawn of a new age for every aspect of our modern society, including the military. While the 4IR is set to disrupt our society, it also provides vast opportunities for militaries to sharpen their operational edge. The second-generation military forces in Sri Lanka are highly regarded in the whole world as we were the first to win hybrid warfare. Yet Sri Lanka has not always leveraged technology as a key force multiplier. Beyond its generation transformation, the Sri Lanka Military forces must ride the wave of 4IR and exploit game changing technologies and concepts, such as Internet of Things (IoT), System of Systems (SoS), Augmented Reality (AR), Artificial Intelligence (AI) and 3D printing. To this end, the Sri Lankan Military Forces must also recognize the key challenges of adapting to this ongoing wave of 4IR. The Sri Lankan Military Forces must ensure that its organisational structure, processes, operating concepts, and workforce are best positioned to ride the wave of 4IR by keeping the Air Force at the leading edge.

Keywords: Internet of Things (IoT), System of Systems (SoS), Augmented Reality (AR), Artificial Intelligence (AI), 3D printing, 4IR

Introduction

It is indeed evident that the rapid advancements in technology have shaped the nature of military operations and weapon system capabilities, moreover, will continue to happen. Presently, developments in the realm of information and cyber technologies are unleashing the proliferation of non-conventional warfare and capabilities. Low cost non-kinetic means, such as cyberwarfare have proven to be effective alternative in achieving military objectives. Such non-traditional capabilities have low barrier-to-entry and are attractive solutions for both state and non-state organizations, particularly those with little resources. These non-conventional capabilities are effective solutions to "leveling the playing field" without requiring large investment. Such disruptive phenomenon threatens the stranglehold of established conventional militaries. Conventional militaries will have to adopt fundamentally different capability development strategies and incorporate innovative solutions to confront the evolving technological and security landscapes.

The technological breakthroughs that are being witnessed are primarily driven by the ongoing wave of 4th Industrial Revolution (4IR). The 4IR marks the dawn of a new age for the modern society, including the military. Technological advancements driven by the 4IR will increasingly blur the lines of physical, digital, and biological spheres (Klaus 2016). While the 4IR creates disruptive forces for every aspect of society, it also provides vast opportunities to be capitalized upon. Technological breakthroughs pushed forth by 4IR offer militaries the opportunities to enhance the effectiveness and efficiency of their operations, training, and support of weapon systems. The 2nd Generation Sri Lankan Military Forces are not technologically advanced but yet highly regarded military might in the world. But other developed countries and 3rd Generation or higher military forces have always regarded and utilized the State-of-the-Art Technology as its key force multiplier. To this end, the Sri Lankan Military Forces must embrace and ride upon this wave of 4IR in it's beyond its Generation transformation. The forces must adapt accordingly and adopt the technological opportunities to maintain a qualitative capability edge over its potential adversaries.

The Central Idea

The 4IR is set to disrupt all aspects of the society, including military. However, disruptive technological advances pushed forth by 4IR also provide vast opportunities for militaries to sharpen its operational edge. This reserach will first identify the key developments of 4IR, and study how the Sri Lankan Military Forces can ride the 4IR wave in its future transformation. Specifically, this research will identify the technological opportunities to enhance the Sri Lankan Military's operations, engineering, logistics, and training. The research will also discuss the key challenges, and how the Sri Lankan Military Forces can position itself to capitalize the opportunities provided by the 4IR in its future transformation. If integrated correctly this will definitely substantiate the military readiness and military might of the Sri Lankan forces and indirectly a main contributor to the National Security

Technology as a Force Multiplier

Sri Lanka is a small nation with a massive variation of unharnessed natural resources. However, we have not taken any measure in utilizing these things or utilizing the geographical advantage for whatsoever. Its limitations and immutable challenges are the lack of strategic depth and knowledgeable labor resources. Given Sri Lanka's limitations and constraints, the use of technology as a force multiplier is critical in giving the Sri Lankan Armed Forces a qualitied edge. To this end, the Sri Lankan military Forces have been innovatively adopting technologies to overcome Sri Lanka's limitations and constraints by doing "more with less". Technology has been and will continue to be a critical force multiplier for small armed forces like the Sri Lanka Air Force. Moving forward, as its potential adversaries adopt new and even non-conventional capabilities, the Sri Lankan Military Forces must continue to adopt game-changing technologies and new fighting concepts.

Ensuring cost sustainability of its fighting capability is a key focus of the Government of Sri Lanka. This is of paramount importance in view of the need to ensure sustainable defence spending vis-à-vis the increasing cost of sustaining advanced weapon systems. To this end, the Sri Lankan Armed Forces must leverage technological means to do more with its resources, to ensure sustainable defence spending without compromising its military's operational qualitied edge.

Methodology Followed

Researcher gathered primary data during the stay at Peoples Republic of China in 2018 to 2019 by observing the real time technology application in various military stratagems. Researcher also partook in several applications such as war gaming and big data handling. The secondary data was acquired from various readings of technology and new epochs that countries have taken in mitigating risks and solving problems, the models were observed and conceptualized before embark on this research especially the Singaporean military models, South Korean, Saudi Arabia and Chinese models. The logical framework was developed beforehand, and several attributes were tested in simulations during the collection of primary data. Deductive and post positivist approach was followed as positivists emphasizes independence between the researcher and here the researcher argues that theories, hypotheses, background knowledge and values of the researcher can influence what is observed.

4IR (Forth Industrial Revolution)

Professor Klaus Schwab first coined the 4IR. In his book entitled "The Fourth Industrial Revolution" Professor Klaus Schwab describes how the Fourth Revolution is fundamentally different from the previous three, which were characterized mainly by advances in technology (Klaus 2016). The First Industrial Revolution was characterised by mechanisation of production process, while the Second and Third Revolutions were characterised by mass production and automation respectively. In this Fourth Revolution, the world faces a range of new technologies that combine the physical, digital and biological spheres.
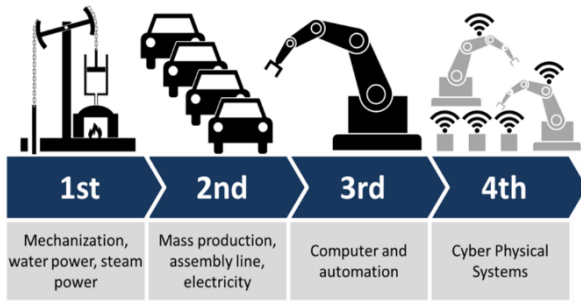
Figure1: The 4 Industrial revolution

These new technologies will challenge fundamental ideas about what it means to be human. The lines between man and machine, real world and virtual reality are no longer as clearly defined. The innovations and changes brought about by the 4IR will create waves of disruption affecting existing society structures, including military structures and reshape military concept of operations.

Among the various disruptive technological advances and new concepts driven by 4IR— Internet of Things, 3D printing, System of Systems, Augmented Reality, Artificial Intelligence possess the greatest promise to enhance, and also fundamentally change the force's concept of operations. Innovative adaption and adoption of these disruptive technologies and concepts will keep the Sri Lankan Military Forces at the leading edge in operations, training, engineering, and logistics.

4ir – Prospects

Internet of Things (IoT) – Optimizing Logistics and Maintenance.

Figure2: Biggest Security Issues IoT Devices Face (by Anastasia Stefanuk at internetofthingswiki.com)

IoT is the concept of connecting any device with an on and off switch to the Internet (and/or to each other) (Morgan 2014). This includes everything from office appliances, home appliances, personal wearable devices and almost anything else that can be connected to the internet. As mobile and broadband network technologies continue to mature and progress, IoT will correspondingly

Continue to grow and intertwine every possible aspect of our society at an exponential rate. With the proliferation of IoT, the human interaction with devices will be fundamentally altered. The interaction will shift away from a "human decide, human command, device execute" relationship. Future devices will be able to partake, influence the decisions, and command phases. Relating this to the military context, IoT will have potential to drive resource optimisation, particularly in the logistics and maintenance domains for the air force. For the Sri Lankan military, IoT can be adopted to strengthen its military power generation capability by enhancing supply chain efficiency. IoT will allow demands for spares and munitions to readily transmit to supply chain nodes, allowing logistics and supply plans to be optimized. IoT will allow technical malfunction and munition consumption details to be relayed to the supply chain nodes with the equipment is still at combat, allowing spares and munitions to be pre-positioned even before the equipment comes to the servicing or refuelling bay. This shortens the turnaround time especially for aircraft in preparing the aircraft for the next sortie.

3D Printing – Enhancing Supply Responsiveness: The emergence of 3D printing is a significant breakthrough for the engineering domain. 3D printing has provided a cost-effective means to meet supply demand expeditiously. For the Sri Lankan military, 3D printing is a viable and attractive means to manufacture non-critical equipment components on an on-demand basis. This will not only reduce demand lead-time, but also significantly enhance the equipment availability and drive down supply related costs, such as cost of maintaining stockpile.

System of Systems (SoS) – Enhance Air Force / Army/ Navy Operations: SoS is a collection of task-oriented or dedicated systems that pool their resources and capabilities together to create a new, more complex system, which offers more functionality and performance than simply the sum of the constituent systems (Dersin 2015). The promises of SoS are of great potential for military applications. An area where SoS could be

applied is the development of collaborative autonomous unmanned aerial system (UAS) operations, or swarming. In a typical swarming Operational scenario, the swarm of UAS will carry out the assigned mission in a self-reconfiguring manner, such that if one UAS is destroyed, the remaining UAS will autonomously re-configure to complete the mission. Such an operating concept utilising SoS concept, enable air operations to be conducted at a significantly lower cost. This is particularly attractive considering the increasing cost of modern air platforms. To illustrate, the cost of an F-4E was approximately US$16 million, while an F-15E costs approximately six times more at US$100 million (Bender 2014). UAS swarming concept will provide a cheaper alternative to manned platforms in fulfilling less complex surveillance and strike tasks.

Augmented Reality (AR): Overcoming Training Limitations and Constraints.

In the 4IR, multiple parallel developments are unprecedented, largely attributed and driven by the immense computing power available today. AR and Artificial Intelligence (AI) are some of the 4IR developments that will blur the lines between the physical, digital, and biological spheres. AR is the technology that superimposes a computer-generated image on a user's view of the real world, thus providing a composite view. In the military domain, AR is probably most useful in the training domain, delivering more realistic training for especially for military pilots and other high-risk training. AR will enable the replication of realistic conditions, allowing contingency training to be carried out in a safe and realistic environment. For the SLAF, AR can help to realise the vision of Live, Virtual, and Constructive (LVC) elements operating and fighting within the same space, overcoming the limitations and constraints of live flights. LVC will allow live assets to be replaced virtually by operator-controlled simulator systems and AI controlled constructive elements. Such an innovative approach allows the SLAF to evaluate strategies and tactics in a complex, large scale environment at a lower cost, while overcoming constraint of training space. In addition, the adoption of AR and AI technologies enable the training duration required for Sri Lankan military combat personnel, such as pilot to be shortened. For example, large force employment scenarios can be easily created using LVC technology to train operational pilots at a much lower cost.

Artificial Intelligence – Enabling Information Superiority: Beyond advances in technology, the breakthroughs brought about by 4IR could a game changer for air force operations would be AI. AI has the ability to learn from past experiences and evolve in the process to enhance the decision process while concomitantly enabling it to learn new things at a much faster rate than the human brain (Anderson 2017). In the context of air force operations, AI could be applied to enhance the processing of 'big data' for the SLAF. The adoption of automation and AI will enhance the Orient and Decide phases in the Observe, Orient, Decide, and Act (OODA) decision process. During the Orient phase, AI can be applied to process 'big data' and derive accurate conclusions, and thereafter recommend the best course of actions to maximize operational advantage to the man in the loop for execution. This shortens the OODA cycle by enabling information superiority for air operations.

Chalenges in 4IR

Cyber Threats: While the 4IR delivers technological advances and many new possibilities, it increases the reliance on computer systems and networks. This phenomenon presents and exposes the society, including military to cyberattacks. Given the increasing reliance on computer systems and networks, it is of paramount importance that the Sri Lankan Military Forces ensures that capabilities are not compromised due cyber vulnerabilities. Cyber defence and operational capabilities at the national level must be strengthened to safeguard the Sri Lankan Military's capabilities.

Re-profiling of Manpower Resources: The disruptive forces induced by the 4IR do not just affect operations, but also the profile and nature of workforce required. To fully capitalize on the opportunities provided by the 4IR, 'up-skilling' and reprofiling of workforce will be required. The World Economic Forum has forecasted that 65% of the world's children entering primary school today will ultimately end up working in completely new jobs that do not yet exist (World Economic Forum 2016). As the Sri Lankan military seek to embrace the 4IR as part of it's beyond new Generation transformation, the military forces must 'up-skill' and reprofile its

workforce accordingly. The re-profiling and training of the air force workforce is necessary to support the emerging roles and demands of new capabilities and operations.

Air Space Management: Proliferation of UAS has opened up a new dimension of challenge in the area of airspace governance to ensure aviation safety. Unregulated use of civilian UAS poses safety challenges to the SLAF given that its airbases are located near populace. To this end, the SLAF must work closely with relevant aviation authorities to enforce strict governance to regulate the use of UAS in the civil domain to safeguard against disruptions to the air force's operations and training.

Embracing a Culture of Innovation: Creativity and innovation are not often associated with military organisations, such as the Sri Lankan Military. However, presently Sri Lanka Army and Sri Lanka Navy has been focusing on imbuing work culture and instituting organisational processes to encourage bold thinking and actions from its workforce. To be able to innovatively adopt technologies and operating concepts allow the forces to achieve operational effectiveness and resource efficiency. Today, efforts in the area of strengthening the culture of innovation are aimed to support and create innovations that harness the latest technologies like data analytics, artificial intelligence, 3D printing and more. The Sri Lankan Military must embrace the culture of innovation to optimise the opportunities presented by 4IR. To this end, top down and bottom up initiatives will be required to take full advantage of the 4IR technologies. Some examples of Sri Lankan Military's bottom up initiatives include computer programmes developed by air force personnel to enhance administrative and maintenance tasks and the e-Learning (LMS-Learning Management System) at Junior Command School China bay in 2020

Strengthen Collaboration with the Defence Technology Community (DTC): Sri Lankan DTC is a critical enabler in the Sri Lanka's military transformation into an advanced 3rd Generation armed force. The DTC comprises of local defence research and development agencies, defence procurement agencies, and departments within the ministry of defence. The DTC is responsible for Sri Lanka's defence research & development, acquisition, and sustainment. Given the nature of

the technologies driven by the 4IR, extensive customizations and indigenous developments will be required to develop capabilities unique to the Sri Lankan operating requirements in its future transformation. At the leading edge, the Sri Lankan Military can no longer rely on acquiring off the shelf systems to meet its unique operational needs. The military forces must strengthen collaboration with the DTC to develop game changing technological solutions as the Sri Lankan forces seeks it is beyond 3rd Generation transformation.

Conclusion

The 4IR will bring about the fusion of the physical, digital and biological domains. 4IR will disrupt the way humankind conducts everyday life and views the world. While this new phenomenon will bring new challenges, the 4IR also create new opportunities that the modern society must capitalise. The Sri Lankan Military has always innovatively adopted technologies to sharpen its operational edge and to overcome its constraints. The Sri Lankan Forces must orient itself to this wave of 4IR and adapt to capitalise on the provided opportunities to maintain its qualitied edge. To this end, the Sri Lankan military must remain cognisant of the impact and disruptions brought by the 4IR, while seek to foster a strong culture of innovation and strengthen cooperation within the DTC community. This will ensure that the force's organisational structure, processes, operating concepts, and workforce are best positioned to ride the wave of 4IR, keeping the Sri Lankan Military at the leading edge.

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Acknowledgment

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Emerging CBRNE Threat from Industrial and Medical Fields to the National Security of Sri Lanka

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Abstract— Number of manufacturing industries and medical institutions in Sri Lanka are using variety of CBRNE agents that could cause severe damage if those agents are released to the environment due to behavioural patterns such as negligence, unawareness and lack of supervision. Inadequate care on CBRNE agents will cost lives and if the same agents are fallen in to wrong hands those could be used as Weapons of Mass Destruction. On the other hand, whether the government has adequately laid down the rules and regulations to protect the national security from the emerging threat is another area to be investigated. Therefore, a research gap has been identified in the area of CBRNE agents and their industrial usage as to whether the parties involved in CBRNE related production are caring about the national security aspect along with the revenue aspect to conduct a research.

Keywords: *CBRNE, WMD, National Security*

Introduction

The rapid development in science and technology during 20th century resulted numbers of inventions followed by the induction of various industries. Therefore, the massive use of CBRNE agents in the manufacturing industries and the medical field were significant and closely tied with the modern economic development. On the other hand, having analysed the modern modus of operendi of transnational terrorist organizations it is clearly evident that they have a tendency to cause severe damage to the nation states by using various methods in which security forces are marginally ready to counter. As such Chemical, Biological, Radiological, Nuclear and High yield Explosive (CBRNE) generally known as the Weapons of Mass Destruction (WMD) can be expected at any time with massive numbers of casualties. Apart from that, the same devastating impact could happen due to accidental or deliberate releasing of CBRNE agents from economic centred entities such as industries and medical firms due to negligence.

Several nations have adopted various measures to nullify the emerging CBRNE threats, some of them are monitoring the illicit transporting of nuclear and radioactive materials, toxic industrial chemicals, movements of infected personnel for the pandemics through the sea and airports, Systematic disposal of radioactive and medical waste and activation of an integrated national response plan for CBRNE emergencies.

However, disparate from other countries in the world it is a question that Sri Lanka has paid adequate courtesy for
the emerging CBRNE threat due to inadequate knowledge on massive consequences followed by CBRNE emergency or attack. Apart from that awareness among the general public about the CBRNE emergencies are also seems to be limited thus making the issue further aggravating.

Further to above, CBRNE agents are used for peaceful purposes such as food processing, agriculture and medical industry by sevarl stakeholders in Sri Lanka, most frequently, Pesticides, Toxic Industrial Chemicals, and high radioactive materials with potential radiation hazard. Hence, this research is to expect that to study the issues emerging from the said context.

Potential dangers with relevant to Chemical, Biological, Radiological, Nuclear and Explosive (CBRNE) appear to be argued in security agendas of non-nuclear states. It is obvious that numbers of industries have been using numbers of toxic industrial chemicals such as Pottasium Nitrate, Calcium Nitrate, Methanol, Caustic Soda and Ammonia in their production line while medical institutions have been using several radioactive materials such as Cobolt 60, Caesium 137, Iodine 131 for their treatment process accordingly. As

per the rules and regulations particular organizations are obliged to adhere to numerous standards when using CBRNE agents.

Though the accepted procedure as such, numbers of incidents were recorded due to negligence and mishandling of CBRNE agents which resulted loss of numbers of lives around the world. Chernobyl nuclear disaster in 1981, Bhopal gas disaster in 1984, Goiania incident in 1987 and Fukushima Daiichi nuclear disaster in 2011 are some of the classic examples in this context. Further, leakage of chemical into the environment through a detergent manufacturer in 2013, a Thinner pipeline explosion in a paint manufacturing factory in 2015, Outflows of H2S gas from a septic tank in a rubber manufacturing factory in 2018, are some of the significant incidents happened recently in Sri Lanka (NBRO, 2019).

In addition to that, if those CBRNE agents are fallen into wrong hands such as extremist and terrorist groups they can create massive damage by using those as WMD. Sarin gas attack in Matsumoto in June 1994 as well as in Tokyo in March 1995, Anthrax attack in 2001, killing of North Korean leader Kim Jong Un's half-brother, Kim Jong Nam by using nerve agent IVX) at the Kuala Lumpur International Airport in Malaysia in 2017, Novichok agent attack in Salisbury, the United Kingdom in 2018 and Ester Sunday attack in April 2019 are some of the examples for such events.

Objectives

The study contains main and specific objectives, the main objective of the research is to study, the emerging CBRNE threats to the National Security from Medical Institutions and Industries in Sri Lanka. Further, specific objectives are,

A.   To identify the types of CBRNE agents used in Sri Lanka for medical institutions and industries.

B.   To identify the possible ways of local CBRNE proliferation.

C.   To recommend a suitable framework in order to halt possible proliferation.

Methodology

A.   *Study area*
The study was mainly focused on the chemical related manufacturing industries at Free Trade Zone ai Katunayake, Sri Lanka Gamma Centre at Free Trade Zone Biyagama, dangerous Cargo section at BIA Katynayake and Apeksha Hospital at Maharagama.

B.   *Methodology*
The information required for the study was obtained through published reports of regulatory commissions, media archives, interviewing key characters in the field. The statistical data required for analysis of the information were obtained from the statistical reports issued by the government institutions of Sri Lanka. Further, to conduct the study with more generalisability couple of international CBRNE experts were also interviewed representing continents of Africa, America, Europe, and Asia.

C.   *Definitions used in the analysis*
CBRNE Hazard-   a potential source of harm or adverse health effect om something or someone which has direct or indirect involvement of CBRNE agents.

Risk-   the likelihood that a person may be harmed or suffers adverse health effects if posed to a hazard.

CBRNE accident-   the unintentional release of one or more hazardous CBRNE substances that could harm human health or the environment.
CBRNE Disaster-   the result of one or more consecutive CBRNE accidents which causes severe damage to something or someone.

For ethical and legal considerations much of the details regarding the CBRNE events were not recorded intentionally, maximum effort was made to present information within the ethical and legal framework to emphasize the aspects of the existing CBRNE disaster management framework which is under the consideration.

Results and Discussion

The study reveals that threats connected to use of CBRNE agents evolving rapidly together with deviations in the political environment as well as the developments in technology. The never-ending use of CBRNE agents in several magnitudes throughout worldwide armed

conflict has, in particular, highlighted that the insubstantial nature of existing world's arm control treaties.

A. Varieties of CBRNE agents

Sri Lanka is one the country use range of CBRNE agents in the medical and indusrial field.

i. Toxic industrial Chemicals- Toxic industrial chemicals are listed as scheduled chemicals in the Chemical Weapons Convention (CWC). Due to the duel use of chemicals, there is a possibility of using readily available materials such as pesticides, toxin as chemical weapons (OPCW,2020).

ii. Biological Warfare Agents (BWA) – Those are complex systems that disseminate disease-causing organisms or toxins to harm or kill humans, animals or plants. Those weapons comprise weaponized living disease causing agents such as bacteria and viruses or non-living agents such as toxins which are derived from bacterial pathogens

iii. Radiological Weapons - Radiological weapons that disperse radioactive agents to inflict injury or cause contamination or damage. A dirty bomb using a conventional explosion to disperse radioactive contaminants is one such type of weapon. Cesium-137, Iridium-192 and Cobalt-60 are common radioactive agents. The exposure to alpha and beta particles and gamma rays leads to incapacitating and lethal effects. This could also encompass other ways to disperse nuclear contaminates, such as through a food or water source.

iv. Nuclear weapon - a device designed to release energy in an explosive manner as a result of nuclear fission, nuclear fusion, or a combination of the two processes. Highly enriched Uuranium-235 and Plutonium-239 are commonly used in nuclear war heads.

A. Trends and Threats of CBRNE use

CBRNE terrorism poses a clear threat to public health and safety, national security and economic and political stability on a global level. Accordingly, the prevention of such incidents is of the highest priority.

Bioterrorism refers to the intentional release of biological agents or toxins for the purpose of harming or killing humans, animals or plants with the intent to intimidate or coerce a government or civilian population to further political or social objectives The threat from bioterrorism is real, with current reports indicating that individuals, terrorist groups and criminals have both the capability and intention to use biological agents to cause harm to society.

Chemical and explosive threat, the use of explosive materials by criminals and terrorist groups poses a significant threat in every country. Attacks using explosives and chemicals endanger public safety on a large-scale and can severely impact the economic and political stability of countries. Threats in the future Chemical attacks are becoming increasingly easier to carry out because the knowledge barrier is low and equipment and materials are readily accessible. There is also a fear that dual-use chemicals, such as pesticides could also be used as weapons. Increasing evidence suggests that terrorists can access chemical weapons stockpiles in unstable states such as Syria. Mustard gas and chlorineare considered to pose the biggest threat because of their free availability and ease of use. Novichok attack in Salisbury (UK) on 4 March 2018 known to be part of a Russian chemical weapons programme, poses a new threat given that these are supposedly highly controlled substances.

Radiological and nuclear threat, Nuclear and other radiological materials have benefited society in areas of medicine, agriculture, industry and the provision of energy. There is a risk, however, that nuclear or other radiological materials could be used in terrorism or other criminal acts. The detonation of an improvised nuclear device (IND), radiological dispersal device (RDD), or the placing of a radiological exposure device (RED) would lead to serious consequences. Such incidents would damage human health and the environment, create panic, and affect economic and political stability.

CBRNE Accidents and Emergencies, since under wrong environmental conditions and poor handling, CBRNE agents can trigger deadly emergencies crossing over the spatial boundaries of an industry. The most significant chemical accident in recorded history was the 1984 Bhopal disaster in India, in which more than 3,000 people were killed after a highly toxic vapour was released at a Union Carbide pesticides factory.

This tragedy was happening mainly due to human error. The Chernobyl nuclear power plant explosion on 26 April 1986 resulted in an unprecedented release of radioactive material from a nuclear reactor and adverse consequences for the public and the environment. The resulting contamination of the environment with radioactive material caused the evacuation of more than 100 000 people from the affected region.

Industrial accidents over past decades in Sri Lanka reveals that there is increasing trend of chemical disaster events. While many industrial accidents which occur inside an industry or a facility reportedly managed within the factory safety frame work, it appears that several chemical accidents have propagated beyond the factory safety management protocols leading to chemical disasters associated with release of one or more hazardous chemical substances to the environment triggered by fire.

Review of the chemical deserter events in Sri Lanka suggested that most of these chemical disasters event have occurred mainly due to lack of knowledge, poor maintenance and supervision, and bad industrial practices despite that actual case is undisclosed most of the time. Further, when disaster strike, often the situation has gone out of control of the industrial management as well as the local incident management capability resulting delayed emergency operations while exposing community at an uncertain vulnerability. In addition to that lack of sound Chemical Disaster Management Fame Work as a major concern and that has propagated many industrial accidents to a state of chemical disaster incident.

Import of clinical waste form the European countries possess high hazard in the biological perspective. Some of the leading companies in Sri Lanka importing these clinical wastes as highly lucrative business by covering in to weak rules and regulations in the country. It was evident that 111 containers filled with chemical waste including human remains were imported by the end of 2019.

Conclusion

It was reveled that the industries and medical institutes that uses CBRNE agents in production

line by giving special emphasis to the previous incidents which has direct bearing to the national security concern. The survey revealed that there are number of possible security threats that can emerge in those entities. Due to the high hazardous level of CBRNE agents, these threats are to be promptly dealt and needed to be immediately addressed by the relevant authorities before serious consequences occur in the society.

Threats related to CBRNE use are evolving rapidly alongside changes in the political environment and developments in technology. The endless use of chemical weapons (CW) throughout global armed conflict has, in particular, highlighted that the fragile nature of existing world's arm control treaties. Further, recent CBRNE attacks took place in Europe and Asian region using nerve agents and radioactive materials suggest that a new concern on state sponsored assassination or attempted assassination must now be incorporated into national security perspective. Such confirmed use of CBRNE materials by both state and non-state actors in these contexts highlights substantial challenges that the world is facing. As such, it is imperative to identify the threats posed by the use of CBRNE and to understand the obstacles that impede cooperation at both the regional and international levels.

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Acknowledgment

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Big Data Analytics: Best Practices from Singapore in the Context of Sri Lanka's Digital Defence Requirements

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Abstract— The information age has resulted in massive amounts of data being shared online and data being created over multiple platforms including smart devices. Such amounts of data create big data that can be used to understand usage patterns and internet behaviour. Many companies and countries collate such information to provide a better service to its customers or to guard its citizens. It is especially important for governments to collate, utilize, and analyse such big data to protect its borders. Analysing the chatter on the cyber space can help avert terror attacks and safeguard citizens from unscrupulous people. Sri Lankan defence has traditionally left the cyber domain vulnerable although maintaining extremely efficient protection mechanisms for traditional boundaries. It has faced many cyber threats over the past few decades. Thus, it is imperative that the country invest heavily in technology and big data. Singapore has consistently proven itself to be capable of safeguarding its borders and economy through use of technology and continues to innovate and invest in technology such as AI and big data. This paper provides a practical model for use by the Sri Lankan government based on best practices from Singapore that will help the island nation increase its security for its virtual borders. This will help it stave off security threats and economic threats.

Keywords: *Big Data, Cyber Terrorism, Data Sets*

Introduction

The growth of data that we create, and share has increased exponentially over the years. This growth is most prominent in the two decades starting from 2000 and 2010. In 2011, the data warehouse of Yahoo! was storing a total of 170 petabytes up from eBay's 8 petabytes just two years before (IMDA Gov). This is due to the amount of information we share with each other. Over the years, we have gone from storing only governmental, defence-related, or commercial information to sharing personal information online on social media, from Facebook to Instagram. According to Milenkovic (2020), "People are generating 2.5 quintillion bytes of data each day" (Lynkova, 2019) and "Nearly 90% of all data has been created in the last two years" (Lynkova, 2019).

A. What is big data?

Big data means any set of data whose size is larger than the database software tools can handle (IBM, 2020; Lynkova, 2019). Handling such data includes extracting (from), "storing, managing, and analysing" (IMDA Gov, p. 2) these datasets. If the dataset exceeds the processing capacity of conventional database systems," it is called big data (IMDA Gov, p. 2). Technology that manages such big data is a "new generation of technologies" that are specifically "designed to extract value economically from very large volumes of a wide variety of data by enabling high velocity capture, discovery and analysis" (IMDA Gov, p. 2).

Any company or large entity could have big data, where they store all the information that the entity generates. This could be a customer's personal data (name and email address), financial data (customer financial data includes their

spending patterns and payment preferences while company financial data includes expenditure, income, and sales information of the company), or operational data. To store such types of information, the company would need a warehouse or system that can handle petabytes or exabytes of information. This information comes from a variety of sources including sensors and smart devices, and can be unstructured, semi-structured or structured information (IMDA Gov).

B. Why is big data important?

In a commercial enterprise, big data becomes important because of the interconnectedness of business verticals (IMDA Gov). In the defence activities of a country, big data merges a larger data set: it will collate such information as network information (network usage), personal information, and usage data (information that is searched for and what sites are visited frequently).

The effective use of big data helps with proactive national defence policies that focus on identifying anti-nationalist activities such as the Easter attacks of 2019 where terrorist activities could have been picked up through chatter on social media and digital platforms if it had been available and used at the time. The Indian government's NIST alerted the Sri Lankan government of chatter in India and had the information been acted upon, the attacks might have been averted.

C. Global Statistics and situation report from various industries

Big data can be a boon to any economy. According to Milenkovic (2020), "By 2023, the big data industry will be worth an estimated $77 billion." According to hostingtribunal.com (2020), "big data has created 8 million jobs in the US alone and 6 million more worldwide." It can help navigate a country to safety. Terrorist attacks can be prevented with the use of big data and economies can be pushed in the right direction with the use of the correct information. Additionally, big data can help a country maintain its digital health. Countries can collate information (such as which organizations have been hacked, where the attacks have come from, and where the vulnerabilities lie in the system) to understand the risks that it might be facing as a country. This is a significant and important consideration to

any nation: cyber threats can negatively affect the economic security of a country as with Bangladesh Bank attack in 2016 (Amarasinghe and Ranmuthugala, 2020) or its national security as happened in Sri Lanka with the attacks carried out by the Liberation Tigers of Tamil Eelam (LTTE) (Amarasinghe and Ranmuthugala, 2020). Big data is not only useful in one sphere. It pervades every area that matters to any nation and using information generated through daily use of technologies can help countries formulate better plans of defence or attack as the need may be.

Since the pandemic of 2020, cyber-attacks on commercial and development-sector organizations have increased (Cincinnati Business Courier, 2020). Some of the major agencies of the world have reported increases in attacks on their networks and companies. The World Health Organization (WHO) reports a "five-fold increase" of cyber-attacks (WHO, 2020) on its staff with 450 email addresses being leaked online. This could have resulted in scam mail reaching the public purporting to be from the WHO. These emails are not merely irritating in content. It can be phishing or hacking emails and can be criminally intended.

According to Vanguard (2020), Robert Rizika (Head of North American Operations - Naval Dome) says that, "in 2017 there were 50 significant OT hacks reported, increasing to 120 in 2018 and more than 310 last years." He warns that in 2020, it will rise to "more than 500 major cyber security breaches, with substantially more going unreported" (Vanguard, 2020). This is an unprecedented increase and is cause for concern.

The global pandemic resulted in staff members working from home, which led to significantly increased vulnerabilities. Enterprise Times (2020) reports that "attack numbers are up with 94% of organisations admitting to a data breach in the last year" and "80% of respondent say attacks are more sophisticated, while 18% say they are significantly more advanced." Forbes (2020) says that, "Microsoft alone is observing around 12 million attacks every day. That's an increase of roughly 20% over February of this year."

It is as important for a country to protect its virtual borders as its physical borders. Such

cyber-attacks can create havoc in a country because scams attack the citizens of a country as well as the economic institutions of a country, allowing for the siphoning of hard-earned cash to other countries and unscrupulous and criminal persons. Thus, it is important that countries invest heavily in safeguarding its virtual border. To do so, countries require a practical model or framework that takes into consideration any local issues that may affect its effective use. To propose such a framework, the authors have analysed the best practices of Singapore, given its stellar track record and innovative approaches in cyber security (Amarasinghe and Ranmuthugala, 2020).

Methodology

This paper uses desk research, addressing the best practices of Singapore in terms of usage of big data. The paper will then draw from these best practices to propose possible models and approaches for the government of Sri Lanka that will help better use the big data generated on a daily basis. The research primarily aims to provide relevant examples of best practices from the region for use by concerned governments and secondly to highlight the need for effective collection and use of big data by governments. The paper answers the following research questions: What factors drive Singapore's national cyber security policy? What are the key regional risks within Asia? What is Sri Lanka's cyber security policy and how can data analytics be used for national defence?

Limitations
The paper is limited to desk research because of the nature of the research that calls for information from a foreign government. To see the larger picture, it is important to analyse available desk research.

Results

Singapore has shown itself to be extremely capable in defending its virtual borders against cyber-attacks (Amarasinghe and Ranmuthugala, 2020). It has also integrated big data into the Singapore Armed Forces. The integration of data is expected to give it a competitive advantage in war and minimise the loss of citizen lives (En, 2016). The requirement is "intelligence that is accurate, geographically-precise and real-time"

(En, 2016). The government invests heavily into all aspects of defence including "Intelligence/Command, Control, Communications, Computers and Intelligence (C4I) structures, capabilities and human resources" (En, 2016, p. 52).

However, analysis of the information that is collated is difficult due to limited human resources that will take long to produce more and better intelligence. Thus, the Singapore government uses specialised data management and data analytics from labs run by National University of Singapore and associated tech hubs at NTU. The Singapore model uses a centralised data aggregation mechanism where the armed forces work with the Ministry of Defence in collaboration with the state technological services to focus on monitoring and identifying attacks on the Singaporean government ad related entities. The attacks on the Singaporean agencies over the past two years and the responses of the government that arise from the information provided by the cyber security operations centre and cyber threat identification, management and resolution mechanism showcase Singapore's efficiency as a country that can identify potential risks and carry out effective action. This efficiency arises from analyses based on the digital platforms that have been integrated to the country's national defence networks. The Ministry of Defence has also focused on creating a specialised cyber task force and cyber warrior division to protect the digital boundaries of Singapore against cyber terrorism and organisation attacks.

The model used by the Singaporean government acts as a benchmark for regional governments highlighting the integration of public/private cooperation coupled with a systematic integration of national agencies to ensure that the country is protected from cyber hacks and to ensure that the country continues operations unhindered by cyber warfare/terrorism.

Discussion

Based on the highlighted Singapore case study, an opportunity exists for Sri Lanka to utilise its focused digital transformation efforts to set up a centralised data analytics platform. This type of platform would be placed at a centralised data aggregation/processing level where the platform

would be capable of receiving information/data sets from various highlighted authorities. A national data analytics platform of this nature can provide valuable insights across multiple areas of focus such as national defence, governance, cyber security, and global threat identification.

This is relevant and necessary for a country of Sri Lanka's nature, size, and history, because of the threats it has already faced and the potential threats that it can face in the future. Such a platform can collate and analyse information such as health risks (i.e.: predict COVID-19 hotspots and potential risk areas), terrorist activities (predict and avert any terrorist action that can compromise the safety of the country's citizens), and financial risks (spam, scams, and phishing and hacking mail).

In the following model, the created/appointed coordinating government agency would feed numerous data sets and provide management platforms to present the information collected in a visually comprehendible structure utilising analytics tool. A primary focus of the platform would be a user-friendly search engine enabling quick queries and customised searches across various data sets. Machine readable data injections is crucial to ensure cross device/service integration.

Another key area would be the Standard Operating Procedures (SOPs) that are essential in creating a document-driven structural guideline for the usage, maintenance, and engagement with the centralised data analytics platform. This also ensures that the data is updated regularly through operating protocol and that the collectors and inputs from the agencies are regular.

A central steering committee for project management, reporting, and decision-making is required as there will be several inputs from external consultants such as SL CERT, security companies (both private and public) and regional cooperating bodies as many countries use cyber security and data sharing as a platform for government-to-government based discussions. This ensures access to information that is non-confidential in nature and it assists government agencies in identifying potential regional risks due to terrorist, virus or other cyber-based risks.

D. Proposed Model/Process
The following highlights key areas of focus in creating a national data analytics platform to ensure national security and economic growth.
- Platform establishment

The platform will focus on two aspects of premise-based physical infrastructure and a cloud-based backup/system mirror. The reason for this is that all governments advocate for national security but data integrity is compromised when hosting on third party global platforms such as Microsoft Azure or Amazon AWS. Although the management of the platform is simplified by the use of cloud hosting, the data resides outside the physical boundaries of Sri Lanka, thus creating a risk in case of unexpected sanctions/war. The platform will be based on industry-leading hardware with failover protocols to ensure near 100% operational efficiency.

- Products/Services Selection

The platform carries two major focuses; namely, the selection of products and brands to set up the security operations centre and data analytics network as well as the services of third-party security integrators, national advisers, and security/compliance experts. These two aspects ensure a holistic approach to platform security and availability. The usage of external security experts ensures that the Sri Lankan government receives industry relevant insight and security consultation both during the initial set up and during the execution/training phases.

- SOP Creation

Standard Operating Procedures ensure that a user-friendly guideline is created to instruct and train platform users on how the system can be optimised, how to generate reports, and also the escalation process if emergency threats/risks are detected. This also ensures that an audit trail exists in case of an unlikely system/platform compromise. This provides the government with valuable insight into fine tuning operations and ensuring the integrity of the system.

Identification of Cluster Agencies
This is used to identify national agencies that are considered on a three-tier basis: Essential,

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Medium Risk and Low Risk. These three categories are used to focus on the various government agencies and entities based on their importance to national development. Thereafter, the three categories are documented as clusters for phase-based engagement and data collection.

- Data collection mechanism

The data collection mechanism is based on collectors that are set in each agency/institution. A mini centralised server is established in each agency and the various networking and security devices are pointed towards this server. Data is pulled/gathered on a regular basis from these devices into a central repository. The central repository is thereafter connected to the national platform and information is processed. This ensures that if a collection point/agency server becomes inactive, easy identification/rectification of that inactivity is possible. The availability and continuity of data and information systems is a crucial factor in making the national platform a success.

- Analytics Platform

A combined platform for data analytics is recommended utilising data processing, visual reporting, and data analytics tools. A cross product/service method ensures that false positives are avoided, and false negatives are detected. The approach to platform integration would be based on the sector-specific application of the various tools with the sharing of results/processing amongst different tools. This ensures that several reports are created using the same data sets and by applying intelligent algorithms to detect anomalies.

- Reporting/Escalation

A dedicated national security team should be in place based on tier 1, tier 2, and critical tier 3 escalations. The categories are to be defined in the SOPs. This ensures that national-level threats detected based on regional data sets or other methods that have been fed in are identified. This has two benefits to the Sri Lankan national security apparatus; firstly, a competent set of skilled security experts/data scientists are created who can then train the next generation of platform specialists. Secondly, a national-level cyber security response protocol is created taking into account the tri forces, various defence agencies, and coordinating entities. This creates

an actionable platform to support national security and cybersecurity development.

- Future Expansions

Once the national platform is created, future expansions can focus on regional information sharing, international platform creation, and regional security partnerships. This ensures that governments within the region use cyber security and data analytics as tools for diplomatic and trade agreements where physical resources, scripts, and information are shared to ensure that the region is secure against unexpected cyber-crimes, financial fraud or digital malpractices. The platform can serve as a tool to strengthen regional ties and create an inclusive cyber security defence mechanism.

Conclusion

Based on the research carried out on the Singapore model and the security provided across the cyber domain against terrorism, fraud, and hacks, the proposed Sri Lankan data analytics model can create a stronger platform, which can integrate digital channels and ensure that the government (in collaboration with defense agencies) ensures the continuous protection of the country's cyber domain.

The recommended model takes into consideration the changing Sri Lankan landscape along with regional influences to create a sustainable digital model that can be expanded to other areas such as healthcare, governance, and digitization/automation of government services. The data analytics component will provide the Sri Lankan government and its associated agencies with actionable intelligence in the form of data-driven trend analysis, identification of potential risks, and mitigation strategies based on the intelligent scripts written.

The overall landscape of Sri Lankan defense has traditionally left the cyber domain vulnerable whilst maintaining extremely efficient protection mechanisms for traditional boundaries. The cyber domain has become a key area of attack globally with hackers continuously testing the security measures utilised by governments in the hope of penetrating national defenses and securing nation critical information of holding different government/essential agencies to ransom by encrypting confidential data. The

model recommended takes into consideration the various agencies and the integration required to ensure that the model receives relevant information efficiently. The model also covers a comprehensive approach for the identification, categorization and protection of key agencies and government establishments. The data analytics platform coupled with a strong cyber security operations platform will ensure the security, reliability, and availability of information. It is also recommended by the authors that the data analytics platform be hosted within the boundaries of Sri Lanka to ensure that any future sanctions or threats from war or other unforeseen issues will not affect the security of the nation. Information hosted and indexed onsite on physical servers with locally available backups will ensure that the systems continuously run smoothly and provide the government with a clear perspective of Sri Lankan security operations, information that can be used to create changes within the Sri Lankan governance and defense industries and to most importantly ensure that the data analytics platform brings positive change to all agencies that have been granted access. The platform will create the change required within the nation to achieve long-term sustainability through a focused effort on strengthening national security and the utilisation of data analytics for nation building purposes.

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External Compulsions that Fashioned Sri Lanka's Historical Mosaic

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Abstract-The subject matter of this research spans from the earliest times since independence. The Merriam Webster Dictionary defines that History is often perceived as a mosaic of discrete occurrences. Sri Lanka's historical mosaic has evolved as a result of internal and external events that have taken place over the years. As an island, Sri Lanka's relationship with the global community in land and by sea domains has been particularly important in the evolution of Sri Lanka's historical narrative. On the other hand, a key turning points such as King Vijaya's arrival in Sri Lanka has mainly taken place due to Sri Lanka's close proximity to India. Therefore, the factor -strategic location and the close proximity to Indian sub-continent- played a significant role in shaping Sri Lanka's historical record. Historically Mahawamsa portrays Vijaya as the first king to establish civilized rule in Sri Lanka. Then rule of King Dewanampiyatissa stands out due to advent of Buddhism during his reign. These events took place due to the fact that India is separated only by a narrow strait. Sri Lanka has been invaded by South Indians at various times due to the same fact. It is almost the same as the French regularly invading England and vice versa. Invasions -whether for trade or for territory- have also changed the political, economic and social environment in Sri Lanka. Due to the favourable geographic location -being situated in the hub of sea lanes in Indian Ocean- later in 1505, the Portuguese landed in Sri Lanka purely by chance. Subsequently Dutch and the British followed the Portuguese. This paper is an attempt at interpreting Sri Lanka's major historical events through the lens of international relations.

Keywords: Sri Lanka, International Relations, Proximity, Strategic Location

Introduction

The history of Sri Lanka is intertwined with the history of the wider Indian subcontinent and surrounding areas, including South Asia, Southeast Asia and the Indian Ocean. Sri Lanka, being an island located in the Indian Ocean, has been influenced by several alien encounters. The authors intend to discuss the main theme under the following areas to argue that Sri Lanka's history is significantly impacted by the international relations.

- ❖ Arrival of Prince Vijaya
- ❖ Advent of Buddhism
- ❖ South Indian Invasions
- ❖ Shifting of Kingdoms
- ❖ Colonial Encounters

A. The Early Period

Sri Lanka's relations with the external world around it -both by land and by sea- has been particularly important in the historical evolution. The way in which historians have looked at what we may call these 'external factors' raises important issues of approach, orientation and perspective in historical studies. The geography of the country too bears an impact on the history of the country. This factor is often proved in the history of the island state. The external factors which influenced early history of Sri Lanka could be discussed under three areas.

1. Sri Lanka's proximity to India.
2. Sri Lanka's strategic location in the sea trade route.

According to chronicles and legends, king Vijaya is considered the first king of Sri Lanka. The earliest record of the Vijaya's legend is found in the Dipawamsa, written around the fourth or the fifth century. Vijaya and seven hundred of his followers were put on a ship and banished from Lata Rata, North India. They embarked from the

port of Supparak and landed in Lanka on the day of the Buddha's demise. After ruling for several years since King Vijaya had no heir to the throne, he was told to call his brother, Price Sumitta, to succeed him at the throne before his death. But at that time Price Sumitta was ruling Sinhapura. Because of that the youngest son of price Sumitta, prince Panduwasadewa was despatched to Sri Lanka to fulfill the task. As the third wave of immigrants, Princess Bhaddakachchayana was brought from India after some time to be married to prince Panduwasadewa.

The Mahawamsa narrative portrays the arrival of Vijaya as the landmark of civilizing early Sri Lankan society. However, the modern historians argue that civilizing of a society could not have taken place overnight. According to Somadeva (2018) the development of the society and culture of Sri Lanka was a gradual phenomenon rather than an accelerated process. However, the important point to highlight here is that the arrival of Vijaya made a notable impact on the ongoing social, economic and cultural continuity of Sri Lanka. This event was merely a result of the close proximity of Sri Lanka to the Indian subcontinent.

Advent of Buddhism

According to Mahawamsa the advent of Buddhism in Sri Lanka is the most important event that had taken place in Sri Lankan history. The main reasons for introducing Buddhism to Sri Lanka was also the close proximity. As a result of that, Sri Lanka was under hegemonic pressure from India. The history of Buddhism in Sri Lanka begins in the third century BCE during the reign of King Devanampiyatissa. One of the main reasons for introducing Buddhism to Sri Lanka was the friendly relationship between King Devanampiyatissa and Emperor Ashoka. There is no conclusive evidence to declare that Buddhism existed in Sri Lanka before the advent of Arahath Mahinda and the entourage. However, according to folk lore Lord Buddha is said to have visited Sri Lanka three times. That shows even before the Mahawamsa period, there existed some relationships with the Subcontinent.

It is recorded in Mahawamsa that a minister named Arittha was despatched to Emperor Ashoka to obtain the guidance of female disciples to enable the women of Lanka to obtain ordination. For that Sangamitta, the sister of Mahinda Thera who had entered the order and had received ordination, was sent out to Lanka at the request of the king and the people and on the recommendation of Mahinda Thera. Emperor Ashoka decided to send a sapling of the southern branch of the Maha Bodhi to Sri Lanka along with Theri Sangamittha. King Devanampiyatissa created the Mahameuna garden to plant the Bodhi Plant and he also commenced the construction of the Pathamaka Chethiya, The Jambukola Vihara and the Hattahallaka – Vihara – and the refectory.

If Sri Lanka was located far away from India, Sri Lanka would not have been an Island heavily influenced by Buddhism. It is a fact that Buddhism plays a pivotal role in all Societal, Economic and political spheres in Sri Lanka. Therefore, living next door to India has drastically shaped the identity of Sri Lanka as an island nation.

As a result of Sri Lanka's proximity to India, Sri Lanka was subjected to Indian hegemonic influences whenever the political power of Sri Lanka declined. Sri Lankan kings have also made matrimonial alliances for the purpose of securing political stability. Prince Vijaya fetched a princess from Madurapura while King Vijayabahu I, queen Lilavati, and King Parakramabahu II also brought virgins to their sons from Jampudveepa or present-day India. Some kings employed Indian officials for administrative services. It is recorded in the chronicles that under queen Anula, an ancestor named Niliya and a city carpenter named Vatuka worked. The Artshastra written by Indian strategist Kautilya was used by the Sri Lankan kings.

South Indian Invasions

Sena and Guttika, the earliest South Indians who occupied the throne of Anuradhapura in the third century B.C, were sons of a horse dealer and it is likely that they were supported by commercial communities in South India. It is also possible that Elara who ruled Anuradhapura a few decades later would have had commercial interests. South Indian literary works refer to a

naval pilot named Elela Singham who belonged to a royal family. It may be that Elara of the Sinhala chronicles is the same person as Elela Singham of the South Indian tradition.

The relationship between south India and Sri Lanka has existed from ancient times. During the period of the imperial Cholas, the influence of south India was felt in Sri Lanka. When the chola dynasty formed an empire, Sri Lankan kings had maintained contacts with Cheras and Pandyans against Cholas.

Sri Lanka had close contacts with Tamil Nadu, than with the other parts of the South India because Tamil Nadu is situated near Sri Lanka. According to the recorded history, during the past 2500 years, Sri Lanka was invaded seventeen times by Tamil speaking Dravidians from Southern India. These brutal Tamil armies and the merciless mercenaries disrupted the continuity of Sinhala kingdom. As a result, the traditional kingdom of Rajarata was shifted to the South West with the passage of time.

From time to time, Tamil invaders held sway over the Island for 170 years. The threat of Tamil invasions was especially critical during the 5th and 6th centuries AD. This was the time when Tamil ethnic and religious domain was consolidating in Southern India. Three Hindu or the southern empires from dynasties known as "Pandaya, Pallava and Chola" were becoming bold and confident to pose a threat to Sri Lanka. To make matters worse for our country, the influence of Buddhism in India has faded away at this period since Buddhism was repressed by the Hindu monarchs. The above kingdoms -Chola, Pandaya and Pallava- carried out repeated invasions and posed a grave threat to Sri Lanka. Although some of these South Indian kings were able to usurp the seat of Sinhalese power only for a limited period, eventually they were ousted, and the country was unified under the rule of Sinhala Buddhist monarchy again.

According to the recorded history, frequent threats by powerful South Indian states to the stability and to the security of our country, continued over during the past 2500 years. The first reported account of south Indian Tamil and rule in Sri Lanka was during the period of 237 –

215 BC by two brothers named Sena and Guththika, who were horse dealers. They have been killed by the Sinhala king Asela who ruled the Anuradhapura kingdom. Then again, after 10 years a well known Chola invader called "Elara" ousted the king Asela and ruled Rajarata for forty-four years. The king Elara was defeated by the great Buddhist warrior, king "Dutugamunu" and ruled the country in peaceful manner.

During the time of King Valagamba (89-77 BC) South Indians invaded Sri Lanka with Seven Tamil warriors and king Valagambahu was banished from his kingdom. The seven invaders were Pulahatta, Bahiya, Panaya Mara, Pilayamara, Dathika. Subsequent to this event Sri Lankan kings seem to have sought the assistance of Pandyans in order to expell Chola invaders from Sri Lanka.

Holding sway over the Sinhala kingdom, the Pandayan's invaded then island in 833 BC to rule the country for twenty-four years. After the invasion of Pandayan's, Chola, invaders tried to become stronger and more effective. From this point onwards both Cholas and Pandayans developed an interest over the royal seat in Sri Lanka.

King Parantaka I of the Chola Empire led an invasion and conquered with his allies. When King Paranthaka conquered Madurai, the defeated ruler took the royal ammunition of Madurai and handed it over to King Dappula IV, who ruled Lakdiva. As a result, King Parantaka I invaded Lanka to take over the Maduravi kings and took away the royal goods. It was the first invasion of Ceylon by the Cholas. King I Raja invaded Anuradhapura in the nineteenth century BC. At that time Raja was the fifth Mihindu king. King Mahinda had fled to Malaya during the invasion and King I had plundered the Lakdiva resources and returned to India. Later, in 1017 AD, Rajendra Chola I, son of King Raja I, invaded Nka and captured Rajarata. They called Rajarata Mummudichola Mandalam. Later, in the year 1070 AD, King Vijayabahu I liberated the country from the Cholas and united Lanka.

During the reign of Queen Leelawathi, who was the window of king Parakramabahu the first, Polonnaruwa was invaded by a Pandayan Tamil invader. He was responsible in deposing her and

ruled for three years. This was the first invasion popped up in the Polonnaruwa kingdom, but the most crucial invasion was carried out by ruthless Kalinga Maga who landed in Karainagar in 1215 AD, at the head of a army of 24,000 along with Kerala and Tamil warriors. They straight away marched towards Polonnaruwa and defeated the king Parakrmabahu the 2nd and ruled for 21 years. The blood thirstiness and the atrocities of invaders were unprecedented in the living memory of the country.

Kalinga Magha dominated over the inhabitants of Raja Rata and extended his invasion to the south of the country but was compelled to retreat. Being beaten by the forces of Vijayabahu the 3rd of "Maya Rata', Maga was killed by the Sinhalese while he was retreating to India. This insecurity brought about by the invaders was a main reason for the relocation of capitals in a latter satge of Sri Lankan history.

During the invasion of Magha, the country was ravaged, plundered of its wealth and much destruction was caused to sacred monuments of the country. The 700-year-old Sinhala royal place in the citadel of Anuradhapura was burnt down. Relic chambers of stupas were ripped open and valuables including gold images in shrines were carted away. Often after plundering the treasure, they razed to the ground, these historic structures for good.

Strategic Location

Sri Lanka is connected by sea routes with ports in the southern, western and north- eastern regions of India. It was conveniently linked with the sub-continent as well as with ports in the Arabian sea, the South East Asian kingdoms and China. Several Sri Lankan ports played a crucial role in maritime trade that flourished through these sea-routes but the degree of importance of some of these ports varies from time to time. Prior to the thirteenth century, Mahatittha or the great port, opposite Mannar on the north western coast facing the Arabian sea was rated the key trading port of the Island. Mahatittha, located at the mouth of the Malvatu river, offeredd easy access to the capital -Anuradhapura- which was located along the banks of the same river. However, with the increased emphasis on the

south-east Asian Sri Vijaya Kingdom as the main center, the significance of Mahatittha had diminished to some extent. However, Mahatittha did not entirely lose its prominence in the period between the seventh and the twelfth centuries and it prospered as a bustling emporium where South Indian merchants flourished. In addition to ancient temple of Tiruketisvaram at Mahatittha, a temple named Rajarajavarattu Mahadeva was constructed near the port in the eleventh century by the Chola conqueror Rajaraja I in order to facilitate the religious observances of the trading communities and soldiers stationed there.

In the Jaffna Peninsula, existed two notable ports namely Jambukolapattana and Uraturai. Jambukolapattana which could be identified with modern Sambiliturai is not recorded as a port of maritime commerce but was widely used as a port of embarkation and landing in Anuradhapura period. Its importance is testified to by the fact that there was a connecting high road from Jambukolapattana to the capital Anuradhapura. Although ports in the south are not mentioned such as those in the northern, north - western and eastern parts of the island in the early period of the Anuradhapura kingdom, one exception is the port of Godapavata (Godavaya) in the Hambantota district. In an inscription of Gajabahu I (114 – 136 A.D.) at Godavaya near the mouth of the Walawe Ganga, it is stated that customs duty charged at the port were dedicated to the Godapavata Vihara. The recent excavations suggest that Godavaya was a semi-urban center endowed with an important port in international trade. These excavations disprove Nicholas's view that Godavaya was an unimportant port.

As a notable harbour in the south, Galle had gained prominence at least by the middle of the fourteenth century. Ibn Batuta states that he journeyed from Dondra (Dinavur) to Galle (Quali) and that he was treated there by a resident Muslim named captain Ibrahim. The Chinese vessels that sailed through the Straits of Malacca victualled at Galle on the way to Malabare or the African Coast. The Galle Trilingual inscription dating back to the first few decades of the fifteenth century, written in Chinese, Persian and Tamil indicates that Chinese, Muslim and South

Indian Hindu and Jain traders frequented the port. The fact that Galle had been a well-established commercial center by the fifteenth century is also attested to by the Sandesa poems. It was a town with wide streets along which were located shops of all kinds.

The port of Valigama, had come into prominence at least from the twelfth century A.D. onwards. It is first mentioned as a port where affluent merchants dwelt during the reign of Parakramabahu I. The Kalyani inscriptions state that a ship sent by the Ramanna king to Sri Lanka arrived at Valigama. The Tisara, Parevi and Kokila "Sandesas" indicate that Valigama had become an important and prosperous port about the fifteenth century. It was predominantly settled by Muslims whose background and interests were entirely commercial. They spoke Tamil and sang Tamil songs.

With the shift of political centers to the south west and the development of the south- western parts of the island, several other ports such as Beruvala, Bentota, Vattala, Chilaw turned out to be of significance in channeling the island's foreign trade. According to Parevi, Gira and Kahakurulu "Sandesas", clusters of sailing ships could be observed regularly from vantage points of the western coast. In the fourteenth century, John De Marignolli arrived by the ship at the port of Perivills in Sri Lanka on his way to China[9]. According to Henrey Yule, Perivills could be deduced being the port of Beruvala. Marignolli states that the administrator at Perivills was Coya Jahn, apparently the name of a Muslim chief. The "Sandesa" poems indicate the Beruvala was a Muslim trading center in the fifteenth century with many beautiful mansions and large shops.

Although an exact period cannot be determined, the Sinhalese established themselves in the island from about the first millennium B.C. There is absolutely no proof to substantiate the claim that the northern and eastern regions of the island were inhabited by Tamils from early stages of history. On the contrary, Jambukola Pattana - modern Sambiliturai- was an important port of the Sinhala kingdom and the Jaffna peninsula was within the territory of the Sinhala kings up to the thirteenth century A.D. except for very brief period. Besides Jambukola Pattana, Mahatittha

opposite present Mannar in the north – west of the Dry Zone and Gokanna, modern Trincomalee in the east coast were among the principal ports of the Sinhala kingdom.

Colonial Era

In the middle of the 13th century several European countries commenced navigation far beyond their shores and to explore new lands. For these pioneering explorers, even royal patronage was made available. When sailing in to uncharted waters, these resolute sailors were immensely relieved to depend on the compass and the sextant. By plotting with these coupled with luck, the navigators were able to achieve their goals with the minimum loss of life.

Portuguese

In the beginning of 16th century, in Sri Lanka there were three native centers of political power, the two Sinhalese kingdoms of Kotte and Kandy and the Tamil kingdom at Jaffna, Kotte being the principal seat of Sinhalese power. Kotte kingdom wielded the lion's share of power in Sri Lanka at that time but none of these three kingdoms was endowed with the political and military clout to reunify the island.

In 1505 Don Lourenco de Almeida, son of Francisco de Almeida's, was sailing to lure Moorish ships in south west cost of Sri Lanka. But suddenly they had the misfortune to face an unexpected situation as they were struck by a violent storm. Because of that storm, the fleet sought refuge at the Galle harbor. And that time king Parakramabahu the 8th (1484-1508) was ruling the Kotte kingdom. King Parakramabahu the 8th builds up a friendly relationship with Portuguese and he gifted cinnamon and elephants for to Portuguese to take home. The king also granted them a concession to build a trading post in Colombo. But the Portuguese nurtured a different plan, while they were controlling the trade, they were plotting to wrest the control of whole country. The scenario was exactly what the British repeated in India-initially "trade not territory" but as they gained a foothold pursing a policy consolidating "trade and territory".

During 15th and 16thcenturies Arabian trader's and seafarer's dominance was patently evident across commercial sea lanes as well as along overland caravan routes. Because of their supremacy, the Portuguese were compelled to face another problem since they always wanted to retain the monopoly of trade routes and commerce. In the meanwhile, Portuguese realized that the ideal location of Sri Lanka was crucial, if they wanted to attain the mastery of the Indian Ocean. This location was conducive to all their future plans as I have explained above. Their main trading base was India and they wanted to protect their trade centers. So they made use of Sri Lanka's natural harbors such Mannar, Galle, Colombo and Trincomalee to protect their main trade center from other competitors and attackers. Not only that, they found that Sri Lanka was rich in natural resources that they wanted. Being prompted mainly by these two reasons, they were keen to bring under their rule at least the maritime provinces of Sri Lanka.

As mentioned above, the division of Kotte kingdom resulted in a future division of an already divided island. Because of this fragmentation, the unity of people too suffered. Portuguese used those events to gain the control of Sri Lanka mainly by stratagem, with the minimum of bloodshed at initial stages.

Portuguese wanted to enjoy the fruits in trading across Asia and to spread their religion - Catholicism- and the commercial empire across the globe. They used Sri Lanka also to fulfill their needs. The division of Kotte kingdom prompted the Portuguese to interfere decisively in internal politics in Sri Lanka.

In order to repulse King Mayadunne, the monarch of Kotte sought the help of Portuguese. As a result of this move, Portuguese army became the security provider of the Kotte kingdom. Afterwards they openly engaged in politics and gradually spread their tentacles in other fields too. This was a windfall to consolidate their foothold and to display their clout among the populace.

Yapanaya (Jaffna) Kingdom

After the drifting of Rajarata civilization, Jaffna kingdom had risen up. Jaffna kingdom was ruled by Arya Chakrawarthi dynasty, and the kind Pararayasekaram. They ruled Jaffna at the time when the Portuguese held sway in southern parts of Sri Lanka. In 1543 Jaffna king battled against Portuguese rule, but this ended up with the king submitting and agreeing to pay tribute. Both parties agreed that they should offer assistance to spread the gospel of Jesus Christ in and around the kingdom, thus converting its inhabitants.

In 1560 Portuguese again invaded the Jaffna kingdom and after it the Jaffna king Sankili went out from the kingdom. It was a victorious moment for the Portuguese of having captured the kingdom of Jaffna and they had the opportunity to exercise power at port of Mannar too. Basically, a large territory in north belonged to them and they had the chance to control the peripheral politics in both South and the North.

Again in 1638, under the Portuguese captain Diego de Mello the Portuguese attempted to invade the heartland of the Sinhala kingdom. But as usual all their efforts did not bear fruit against the strong Sinhalese battalions under the Sinhala kings. This was the last effort or the invasion to capture the Kandyan kingdom.

Dutch In Sri Lanka

The Dutch are the natives of Holland. After the discovery of maritime routes to Asia by Portuguese, the Dutch navigators too tried out to reach the Asian destinations. In 1602, amalgamating some Dutch merchant groups they formed a commercial entity called "Dutch East Asian Company" which is commonly known as "VOC". From the beginning onwards their trade was transacted by "VOC" and their motive was "profit". From the above statement, and the evidence, we can figure out that the Hollander's main idea was to reap profits by trading through the Asian countries.

The Dutch, as soon as they reached south Asia were based in "Batavia" from there they controlled the trade in east Asian countries. They found out that in Sri Lanka produced high quality pepper and cinnamon. Being tempted by spices, they formed a relationship with Sri Lanka driven by trade. This was the time that the country was facing a harsh rule under the Portuguese. Sri Lankan Sinhala kings wanted to build up a fruitful

relationship with Dutch in order to oust the Portuguese from the maritime provinces. This suggestion was an ideal opportunity for the Dutch to be actively involved in the internal affairs of Sri Lanka.

In 1602, a Dutch ambassador named "Joris Van Splibergen" journeyed to Kandy and consulted the king Wimaladarmasuriya. After him a few embassies followed, one of whom was "Siebel de Vart". But the discussions were not successful in 1658 AD. After the ascension of king Raja Singha, the 2nd, he wanted to cement the bonds with Dutch's in order to expel the Portuguese from Sri Lanka and to reunite the country without being subdued by foreigners. From this conversation, they drew up with an agreement. This included:

- ❖ They agreed to help out Sinhala kings to drive out Portuguese from Sri Lanka.
- ❖ Military expenses should be set off by providing cinnamon, pepper, and other commodities.
- ❖ Export elephants. Dutch to retain the authority to decide the trade in Kandyan kingdom.
- ❖ Dutch enjoy the privilege to occupy the Portuguese forts if the king would agree to such a move.

From the year of 1638, the Sinhala kings spent nearly 20 years to oust Portuguese even if we gained their Batticaloa fortress earliler. During this period Sinhalese and Dutch joint forces succeeded in capturing Portuguese fortresses such as Trincomalee, Negombo, Galle, Kaluthara, Colombo, Mannar and Jaffna.

After capturing these fortresses, Dutch were not readily evacuating from these vantage points as was agreed upon by the pact. After these bitter incidents the relationship with kings and Dutch was strained since Dutch did not honour some vital terms.

As I mentioned above, the Raja Singha II's expectations of seeking the help of the Dutch were:

- ❖ Oust Portuguese from Sri Lanka.
- ❖ Reunite the country, by holding the areas which were ruled by Portuguese and proclaim the land again as a single country.

The king managed to fulfil his first aim, but bitterly disappointed with the second wish since Dutch tend to occupy the Portuguese fortresses. In between the time period of 1665 to 1668, Dutch tend to attack the Kandyan territory and over run some places in Kandy.

Salient features of policies between Kandyan kingdom and Dutch

- ❖ Initially Dutch avoided punitive expeditions against the Kandyan kingdom because they realized that they simply couldn't win those battles. They followed a policy of peaceful coexistence with Kandyans because VOC wanted rake in high profits in the long run.
- ❖ To maintain a cordial relationship with the Kandyan kings, they sometimes dispatched delegations that were bearing exotic gifts European rarities. The ulterior motive was to achieve monopoly in cinnamon trade in Sri Lanka.
- ❖ Dutch sponsorships for Buddhist revival and ordinations by providing ships.

British Power Establishing in Sri Lanka

Since 1607, British wanted to gain a foothold in the Indian subcontinent. They succeeded after about 10 years. Then they stationed factors and established several trading posts in East India. Their initial maxim was "Trade not territory" which was soon conveniently amended to "Trade and territory". The ultimate result was the inevitable "Territory and territory" which lasted until 1947. The British realized the importance in Sri Lanka along with her strategic location, as it was very close to India and in the midst of silk route. They foresaw that gaining the control of Sri Lanka would ensure their complete control i.e. free trading and unhindered navigation. Also, they sought a safe haven to repair and victual their ships which have faced enemy attacks or the ravages of high seas.

And also, one of their main reasons to come up to Sri Lanka was the Trincomalee, as it was a massive natural harbor which afforded

anchorage even to several fleets of ships. We could assume the other reasons as the rich natural sources of Sri Lanka such as cinnamon, pepper, gems and tusks etc. which were heavy demand in Europe. Being prompted by these reasons, soon they were eyeing the tempting fruits of the monopoly in Sri Lanka.

Establishing British Power

In 1796 "British East Asia Company" established their power in certain coastal areas in Sri Lanka. By February 1796, they have successfully conquered the Colombo, Galle, fortresses. These victories were followed seizing all the fortresses and territory which were under the Dutch. Anyway, Dutch were smoothly relieved of their hold Sri Lanka as British were operating under certain developments and agreements that were emanating from the Holland. In 1802, coastal areas under British East Asia Company were duly transferred to the British sovereign and the thereafter treated as a crown colony. The British mostly by employing intrigue and stratagem deposed the King Sri Wikrama Rajasinghe in 1815, thus gaining the control of the Kandyan kingdom too. They elevated themselves to become the rulers of the entire island within two decades of landing in this island.

From October 1798 onwards there were some changes made in ruling the coastal areas of Sri Lanka by British. This positive move was to appoint a governor who is loyal to the British crown. The first governor they appointed was Frederick North in order to regularize to the management and politics. From 1798 to 1802, the county was operating under the "dual control" system. Since this concept failed to bring about the desired result, the Company handed over the coastal areas of Sri Lanka to British government in 1802.

Kandyan Convention – 1815

Kandyan Convention is a very important official document which signifies that the Kandyan kingdom was officially ceded to the British Crown. Under this convention it was agreed upon to ensure that:

- ❖ The Kandyan kingdom no longer belongs to King Sri Wikrama Raja Singha or successors
- ❖ The Kandyan kingdom officially belongs to the British Crown.
- ❖ To protect cultural values and rights and responsibilities of aristocrats.
- ❖ To protect the main religion Buddhism, priests and their temples. Also, to developed and maintain its.

After signing this Convention, the country which flourished for more than 2,000 years purely as an independent state, was ruled under the tyrannous yoke of an alien power whose seat of government was located more than 8000 miles away.

Conclusion

All of the above facts could show how Sri Lanka co-existed with other countries and how Sri Lanka's strategic location tempted other countries. It is clear that European powers were drawn to seize Sri Lanka due to her optimum geographical location and the abundant natural resources. At other times the growth of the political, economic and social spheres in the country too contributed. At the same time, it is clear that Sri Lanka has at times been more influential and at times less influential to other countries over the decades. Here we have learned much about Sri Lanka's international relations with other countries, using my essentials from the monarchy to the current political scenario.

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The First War of Unification in Sri Lanka: A Critical Analysis

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Abstract- The war fought between King Duttagamini and King Elara in the 1st Century BC was commonly known as the first war of unification in Sri Lanka. Until then, the country has not been referred to by the historians as a single sovereign administrative unit. There were many power pockets operating from various parts of Sri Lanka. However, Mahavamsa -the chronical which was written a few centuries after the war of unification- attaches favorable prominence to the victory of Duttagamini against Elara. This historical episode has been interpreted by several historians for diverse objectives in the passage of Sri Lankan history. Moreover, this war of unification has been mis-construed by many as an ethnic conflict which escalated between the Sinhala and Tamil races. After a thorough perusal of facts and figures relating to this research, it is evident that this military offensive was solely prosecuted with the motive of unifying this island. The aim of this compilation is to justify the fact that this venture was to be treated as war of unification and not as an ethnic conflict while critically analyzing each stage of the Elara-Duttagamini war. This paper is compiled with employing secondary data. Books, research papers, journal articles and e-articles are used as secondary data.

Keywords— *Duttagamini, Elara, Unification*

Introduction

Sri Lanka became a much more civilized nation after the advent of Buddhism during the reign of King Dewanampiyathissa. This signal event saw the introduction of many novel cultural aspects paving the path towards a developed state. Starting up with a ruling system with much more positive backgrounds together with social and cultural areas from side to side. Sinhala Kings started ruling, focusing mainly on the interior of the country until invasions from different nations -especially invasions from the South India- usurped the peace.

According to the ancient Sinhalese chronicle Mahavamsa, Sri Lanka was not ruled by a single King or governed under one main district. Yet it was ruled under several sub regions where there were chieftains and rulers to each minor or major human settlement within Sri Lanka. The central power that a state should have wielded was devolved and subjected to vicissitudes due to the impact of several decisive factors.

Beginning from King Pandukabaya to down King Elara, Sri Lanka was not rated a unified land until King Duttagamini shouldered the initiative for unification. This was against King Elara who was branded an invader. Before the unification we are encouraged to note the fair and firm rule of the South Indian Invader. King Duttagamini and his efforts to unify Sri Lanka are the earliest campaigns of territorialism portrayed in the Mahavamsa. He was the first king to unite the entire land and to hold sway over as a single ruler and to recapture from hordes of Indian migrants. His campaign of unification went through a series of engagements during which he killed 32 generals (confirmed by both Mahavamsa and Depavamsa, although only the Mahavamsa states that they were Tamil kings) before arriving at Vijithapura to face his archrival - King Elara.

Starting up with two "Damilas" or Tamils, Sena and Guttika -sons of a freighter who brought

horses hither- spearheading a great army overthrew the Sinhala king Sooratissa and ruled Sri Lanka together for twenty-two years. But when Asela - the son of Mutasiva, being the ninth among his brothers and born of the same mother- had vanquished them, he ruled for ten years at Anuradhapura. This is the closest history for the start-up of King Elara's just rule despite him being rated a Tamil invader.

At this period there were branches of the royal family established at Kelaniya as well as at Magama in the present Hambantota District. The queen of Devanampiyathissa tried to poison her brother-in-law, the sub-king Mahanaga, who thereupon fled towards Ruhuna. On the way his wife gave birth to a son, Tissa, at the Yattala Vihara and while proceeding to Ruhuna, he established himself at Magama. The site of Tissa's birthplace usually is identified with a temple near Thissmaharama.

During the reign of King Asela 185 BC, a Damila (Tamil) named Elara from the Chola country landed at Malwathu Oya with a contingent of nearly 100,000 men at the mouth of the river Mahaweli on the east coast of Lanka. From there the army marched to Anuradhapura. King Asela was killed and the Kingdom was seized. Having overcome all opposition Elara established 32 military camps and appointed 20 great giants. An account of these camps is found in the NikayaSangrahaya.

He ruled Mother Lanka forty-four years and his administration of justice and enforcement of fair rule commanded the respect of his Sinhala subjects. Though he was a Hindu, he tolerated all religions and persecuted none. Mahavamsa relates that the king had fixed a bell with a rope attached at the head of his bed, so that all who sought redress might ring it. Among other instances of the royal justice the chronicle relates how a calf was killed accidently by the chariot wheel of the king's son, and how, when the mother cow was ringing the bell, the father had the prince's head struck off by the same wheel. The story is also repeated in Tamil literature of the Chola king Manu. Elara is a favoured figure in the history of Sri Lanka and one with a particular resonance, given the ongoing strife in the country. Although he was an invader, he is often regarded as one of Sri Lanka's wisest and just kings, as highlighted in Mahavamsa.

Elara's reign has been ascertained to be from 205 BC to 161 BC – a cumulative period of 44 years. Assuming that he had to be at least 20 years of age at the time of capturing Anuradhapura kingdom, then one can fix his year of birth to be around 225 BC. Thus, Elara's life span can be tentatively fixed at 61 years. He died in a duel (fought while riding his elephant) against the young prince Duttagamini in 161 BC.

King Elara- The Noble Ruler

King Elara is depicted in the Mahavamsa as "A Tamil of noble descent . . . from the Chola-country". Little is known of his early life. Around 205 BC, King Elara led an invasion to capture the Rajarata which is based around Anuradhapura in northern Sri Lanka. He routed the forces of king Asela of Anuradhapura, thus establishing himself as sole ruler of Rajarata. His name is recorded in Silappatikaram and Periya Puranam and since then it has been used as a metaphor for fairness and justice in Tamil literature.

According to Professor W.I. Siriweera in his "History of Sri Lanka" Elara could never have remained in power for a long period such as 44 years had he lacked the support of the locals. Professor Siriweera adds that *"most foreigners who succeeded in wresting the throne and ruling the country for any considerable length of time have had some indigenous support or had been backed by foreign power."*

It is evident that King Elara was a just king to such an extent that he executed his own son as a punishment for killing a calf. The Mahavamsa itself repeats that King Elara was a pious and a just ruler. Another outstanding feature was that even though he wasn't a Buddhist himself, he liberally patronized Buddhism.

Throwing light into the most reliable source of Sri Lankan history, which is the Mahavamsa, it is evident that King Elara and King Dutugemunu were engaged in a more of a feudal power game and not in a racial conflict between the Tamils and Sinhalese given the fact that King Elara had formed a deep reverence to Buddhism. For instance, it is stated that when Elara was on his way to the Cetiya mountain in a chariot to invite Bhikkhus, the nub of the yoke of his chariot struck a dagoba and caused damage to the monument. During this mishap Elara's ministers are said to have exclaimed "Oh King! Our thupa has been damaged by you" This proves the fact that Elara had employed Sinhalese ministers too as they claimed the thupa to be theirs. It is evident that King Elara has given prominence to the locals and entrusted them with administration during his regime. Moreover, king Elara is said to have invited Buddhist Bhikkhus of the Cetiya mountain for religious rites or to seek advice.

King Kavan Tissa

KavanTissa, also known as Kakavantissa, was the ruler of the Kingdom of Ruhuna in the southern part of Sri Lanka. He ruled Ruhuna, at the same time as Kelani Tissa of Maya rata and the usurping Tamil king of Anuradhapura, who happened to be Elara, expanding the city. Also, he was consolidating the clout of his Rajarata region across the length and breadth of Sri Lanka. KavanTissa was a great-grandson of King Devanampiyatissa's youngest brother Mahanaga, and also the father of King Dutugemunu.

It is clear that the Mahavamsa author has attached great importance to King Duttagamini. He not only tried to glorify the achievements of King Dutugemunu by elaborating on his religious-nationalist character, he also downgrades King Kaavantissa (his father) and his brother King Saddhatissa as cowardly leaders who weren't in favour of conflict. In the saga of King Duttagamini, the Mahavamsa author extols the young prince Gamini as an upcoming, powerful religious-nationalist leader. Folk lore has it that when Prince Gamini was just 12 years old, King Kaavantissa made three lumps of rice which he made Prince Gamini and Prince Tissa to eat while making three promises. One was to never go into

war with the Tamils, which Prince Gamini refused at once. It also states that the enraged and frustrated prince was lying crouched on the bed and when his mother questioned him of the reason, he has compared his bed to the island and retorted that, " Over there beyond the river are the Tamils; here on this side is the sea; how can I lie with outstretched limbs" The Mahavamsa chronicler Mahanama Thera further elaborates that Prince Gemunu's attempt to wage war against the Tamils was thwarted by King Kaavantissa three times. As a result, the enraged Prince has sent a set of women's' ornaments to his father and he self-exiled himself to the central hills (believed to be Malaya Rata) and earned the sobriquet "Duttagamini". Professor W.I. Siriweera has remarked that, it is evident that the relationship between King Kaavantissa and Prince Gamini was strained during the latter part of the prince's youth.

However, it is clear that King Dutugemunu may have surely lost the battle against Elara and the Tamils if not for his father's foresight and meticulous planning. It is evident that King Kaavantissa laid the solid foundation to enable King Dutugemunu to galvanise the populace into action with Elara without jeopardising the economy, agriculture and other routine affairs. Therefore, it is a misconception to portray King Kakavantissa as a vacillating leader just for refusing to embark on an unplanned and hastily drawn up combat with a powerful enemy who successfully managed to rule the country for more than 4 decades.

It is evident that King Dutugemunu had to bring 32 kingdoms and kinglets under a single royal standard before launching the final unification war with King Elara. The initiative was taken by King Kavantissa during his regime. He amalgamated the various kinglets of Rohana to form one formidable unit. He brought the Kelani Kingdom too under his suzerainty by giving his sister Somadevi in marriage to Prince Abhaya of Kelaniya. Furthermore, he managed to bring the kinglets Seru and Soma under his influence of Rohana by using tactful measures.

Professor Senarath Paranavithana has pointed out that King Kaavantissa managed to build and train an army in a very successful manner. He established a number of workshops to manufacture the required weaponry for combat. The recruiting of 10 warriors with superhuman powers is one of the most salient features of King Kaavantissa's strategic planning. By names they were known as Nandimitra, Theruputtabhaya, Suranimala, Mahasona, Gotaimbara, Bharana,Velusumana,Kanchadeva, Phussadeva and Labhiyavasabha. The king assigned the responsibility of expanding and training the army to these 10 warriors. Hence, they managed to raise an army of 11,100 soldiers. Prince Dutugemunu too contributed in training the army in combat before the grand finale. King Kaavantissa had garrisons posted at strategic points along the Mahaweli river and also managed to station spies in the kingdom of Anuradhapura. Moreover, he sent his son Dighabhaya (from a secondary wife, other than Vihara Mahadevi) to guard the frontier against possible inroads from the Rajarata ruler. King Kaavantissa's foresight can be rated as prodigious considering the fact that he predicted of a possible conflict between his sons Prince Gamini and Prince Tissa. Therefore, he made the warriors and monks take oath to keep away from such a clash between the siblings. In addition to King Kaavantissa's foresight in developing war strategies, he realized the fact that a war can't be prosecuted successfully if the economy of the land was in ruin. Therefore, he detailed his younger son Prince Tissa to proceed to Dighavapi to accelerate the development and to personally oversee the progress in agricultural and irrigation sectors.

As discussed above, it is evident that the unification war wouldn't have been an easy for King Duttagamini if not for King Kaavantissa's farsighted planning. Ironically, he hasn't been bestowed on the due credit that he deserves. Unfortunately, he is portrayed as a cowardly leader who refused to wage war against the Tamils who were ruling the capital city of the island, Anuradhapura.

Due to this feat and the support offered, the Mahavamsa constitutes the major source on Dutugemunu's reign and dedicates eleven chapters out of 37 to his narrative. Hence, the Mahawamsa itself is called the epic of Duttagamini by certain historians. In chapter 22 he is depicted being descended from the ancient royal family of Rajarata through Devanampiyatissa's brother Mahanaga. At the time of his birth, Dutugemunu's father was Kavantissa, the king of Ruhuna. This was a small kingdom in south-east Sri Lanka beyond the influence of Rajarata in the north : the border between the two kingdoms was the Mahaganga, or 'Great River', possibly the modern Menik Ganga.The Dipavamsa, which is the earliest historical record of Sri Lanka, referred to Sena and Guttika, the earliest invaders of Sri Lanka as the Damilas but not Elara. It merely states that the Kshatriya prince Elara, having routed Asela, ruled righteously for forty-four years.

W I Siriweera records in his book, "History of Sri Lanka" that "neither at the time of writing of the Dipawamsa" nor during the two centuries prior to its writing, did Sri Lanka experience South Indian invasions while the Sinhala and the Tamil communities inhabiting the island had co-existed as best as they could, sans any conflict.

Dutugemunu's mother was Vihara Mahadevi, daughter of Tissa, King of Kalyani. Legend has it that as retribution for Tissa slaying a Buddhist monk, Kalyani had been subject to a series of deluges from the sea. To placate the deities, Tissa placed his daughter Devi in a golden boat with the words 'A King's Daughter' inscribed on the hull and set her out to sea. Miraculously the princess was washed ashore, safe and sound, in Ruhuna, and married Kavantissa. During her pregnancy while expecting Dutugemunu, Vihara Mahadevi made it known that she harboured a series of peculiar cravings, including the urge to sleep on a pillow made of honeycombs. In particular, she longed to drink the water used to

wash a sword that had slashed the head of a warrior of Elara, whilst standing on that same head. These fired the interest of the soothsayers at the court, who predicted that 'The queen's son, after he had vanquished the Damilas and built up a United Kingdom, will make the doctrine to shine forth brightly'. Vihara Mahadevi gave birth to a son named GamaniAbhaya and after that to another child, a boy named Tissa. Around the time of Gamani's birth, 'an elephant of the six-tusked race brought his young one thither and left him here and went his way'. This pachyderm named Kandula, grew up to become Gamani's mount and accompanied him through much of the prince's adventures. By the age of sixteen Gamani was 'vigorous, renowned, intelligent and a hero in majesty and might' and somewhat wayward. Determined to expel the invading King of Rajarata, Gamani raised an army from around Rohana and declared his intention to regain the north for his father. The King forbade this venture remarking that 'the land on this side of the river is enough'. The resulting a verbal exchange between father and son saw Gamani being dubbed 'Duttha Gamani', his friends fleeing to Malaya, and he himself being incarcerated in a royal prison.

Kavantissa is known as a brilliant strategist who realized well in advance that he needed to make his kingdom powerful as well as prosperous before waging a war against the invaders. He galvanized armies of farmers and herdsmen to make his kingdom overflowing with "milk and honey". This meant that the populace reaped an abundant yield which would come handy during a period of strife. The legendary ten giants– who were endowed with Herculean strength – were absorbed into the army by this time. Kavantissa repeatedly makes Dutugemunu and Tissa vow that they would never fight one another and that they would always respect and heed the advice of the priests. He also makes the ten giants pledge never to pick sides in a clash between the two brothers.

Upon Kavantissa's death, Dutugemunu found himself having to defend his crown against his younger brother Tissa, who had seized possession of not only the elephant Kandula, but the dowager queen Vihara Mahadevi as well. The battle between the two began with a defeat for Dutugemunu at Culanganiyapitthi, where 'many thousands of the king's (Dutugemunu's) men' perished. Dutugemunu was forced to flee back to Mahagama where he levied another army and engaged Tissa in yet another battle in the vicinity of the city. Legend has it that Tissa, engaged his brother riding the royal elephant "Kandula" while Dutugemunu was seated on a mare. Dutugemunu at one point made the mare jump over the elephant causing the elephant to recognize its master and in turn it attempted to kill Tissa who hastily dismounts by hanging on to a tree. Dutugemunu emerged victorious and Tissa was smuggled off the battlefield disguised as the corpse of a monk. It is said that Dutugemunu got wise to the ruse and called out to his brother "Are you not ashamed to be carried on the back of these priests?" However, sometime later, Dutugemunu and Tissa were reconciled through the efforts of Vihara Mahadevi and the monks with Tissa becoming one of the king's foremost generals.

Having secured his position, Dutugemunu then planned his operations to regain the north, which included not only Rajarata but numerous small semi-independent polities. The king's army consisted of 'chariots, troops and beasts for riders', soldiers and a number of war elephants, as well as a group of monks (to advise the King) and a relic placed in his spear for luck and blessings. Other than these, he was accompanied by the fabled Ten Giant Warriors who had been recruited from all over the island by his father Kavantissa.

Historians believe that the two generals Gamini and Dighabaya of Elara's army have to be Sinhala Buddhist names. Elara's sister's son, Nandimitta was appointed one of Duttagamini's ten commanders.

King Dutugemunu's Campaign Against Elara

The campaign saw Dutugemunu subduing a number of usurping rulers in the north (as many as 32, according to the Mahavamsa). Of particular interest is the four-month siege of Vijitanagara, where the defending Tamil troops are said to have used 'red-hot iron and molten pitch to cause panic and mayhem among Dutugemunu's elephants. During this time, he also married Ran Etana, the daughter of a chieftain who continued to pay homage to Elara of Anuradhapura. On at least two occasions victory is attributed to the king's 'cunning' and the bravery of Kandhula. The campaign reached a climax at the eastern gate of Anuradhapura, where Dutugemunu, riding Kandhula, finally confronted the aged Elara, mounted on his own elephant Mahäpabbata, and slew him with a spear; the encounter is one of the most glorified accounts in Sri Lankan history.

Dutugemunu's victory at Anuradhapura placed him in the unprecedented stature of ruling nearly the entire island of Sri Lanka. Despite this exalted rank however his troubles were far from over. There may have been a few pockets of resistance that needed to be stamped out. Elara, despite being an invader from the Chola empire of south India, was hailed having been a just and righteous ruler. Dutugemunu went out of his way to ensure that the memory of the old king was revered and perpetuated as he cremated Elara befitting the departed warrior's stature. Dutugemunu also built a tomb to deposit the ashes and further decreed that all travellers should get off from whatever vehicle in order to pay their respects at tomb of the vanquished warrior. Furthermore, reflecting on his glorious victory, notable though it was, he knew no joy, being remorseful that thereby he annihilated thousands of enemies and also caused the deaths of his own soldiers. This is attested to by a number of religious sites attributed to him by the chronicles (between 68 and 99), which include magnificent stupas, monasteries, and shrines.

Conclusion

Considering all these facts it is evident that King Elara wouldn't have had even a remote chance to rule for such a long period if he was an unpopular and autocratic ruler. By considering the facts as mentioned in the Mahavamsa, it is clear that the social and political structure during the Elara regime was favourable to the citizens and he has afforded prominence to the Sinhalese and Buddhism. This setting can make us conclude that the conflict between Elara and Dutugemunu was nothing but a war of unification and never a racial conflict between the Sinhalese and the Tamils.

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Human Resource Functions of the Tank Culture in Sri Lanka

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Abstract- The human resource which evolved with the functionalities of the ancient tank culture of Sri Lanka is the research focus of this paper. According to Mahawamsa, paddy cultivation was the lifeline of the Sri Lankan economy from the ancient past. The hydroculture of the island is a legacy that is attributed to the Aryans who migrated to the country from north India in the 6th Century B.C. The initial Aryan settlements took place in the dry zone in Sri Lanka which has low rainfall and therefore, the farmers needed considerable storage of water to support agriculture. Since the Aryans possessed the expertise of hydraulic engineering and tank building, they took steps to address the demand for water by erecting the tanks in almost every part of the dry zone. These tanks were not isolated projects. They were well placed in a holistic socio-economic system that resulted in the prosperity peace and security of the Island for many centuries. In this backdrop still tank culture is an integral component of the lives of Sri Lankan farmers. The functionalities affiliated to the tank culture was one of the top employment providers for the Sri Lankan rural peasant as well. The authors argue that some of the core practices in this context could even be useful in strengthening the modern-day human resource practices of other fields. The context is analyzed by employing concepts belonged to the theories of oriental despotism and human resource management. It is empirical research conducted by using primary and secondary data. The researchers have found how ancient human resource practices tally with modern-day practices.

***Keywords:** Holistic Socio-economic system, Human Resource, Tank Culture*

Introduction

From ancient days main occupation of Sri Lankans was paddy cultivation. According to Mahawamsa paddy cultivation of the country was given more prominence as the life line of the economy after the arrival of Aryans who migrated to Sri Lanka from India in the 6th B.C. Aryans settled in the dry zone in Sri Lanka which has a low rainfall therefore the land needed a considerable storage of water for paddy cultivation. Since the Aryans possessed the expertise of hydraulic engineering, they took septs to address the demand for water by erecting the tanks in almost every part of the dry zone. In this backdrop reservoirs or tanks become the base of the agricultural development of Sri Lanka. In the passage of time Sri Lanka's water civilization gradually evolved with the development of the tanks and its associated cultural traits (Basnayake, 1997). A significant component of the tank culture was the human activities of the village (Senevirathne, 2002). This paper discusses the importance of human resource of the tank culture in providing human security of the island.

The very 1st evidence that could be found about tanks is in mahawamsa which was written in 4th century B.C. According to that first tank which was in recorded history is primitive tank built by Anuradha in Anuradha gama in 6th B.C (Mahanama, 1912). King Pandukabhaya era was a very important era in Sri Lankan history. In tank culture point of view, he is the very 1st king who built the tanks. According to the mahawamsa, he built 3 tanks such as, Jaya wapi, Abhaya wapi[22] and Gamini wapi. Among those Abhaya wapi is the oldest tank that was certified up to today. It is in Anuradhapura as Basawakkulama tank.

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[22] *Vapi* ; Meaning reservior

After that tank culture spreqaded over centuries in Sri Lanka. In the the first two eras in Sri Lankan history (Anuradhapura and Polonnaruwa) we can observe that there were lots of tanks built with the patronage of kings. Chroicles such as Mahawamsa, Rajawaliya and stone inscriptions like Padawiya (Brohier, 2001) provide stronce evidences to support this fact.

There is a strong bond in between lives of people and tanks in dry zone. This fact can be proven by observing some villages names such as, Kon wewa, Galen biduna wewa, Walas wewa and etc. Names of the large tanks used to name large areas also. The area covered by Nuwara wewa, Kala wewa and Padawiya wewa known as the Nuwara Kalawiya by combining the names of above-mentioned names of the great tanks (Swarnasinghe, 2005).

There is a social system developed around the tanks. When developing that social system around the tanks, managing manpower was a significant factor. This social system provides evidences for how our ancestors managed their human resources successfully.

In ancient era manpower was the main resource used for constructions. This fuchtion should have been a complex one. Contemporary human Resource Management is a prominent aspect of a countrie economy. Sri Lanka is also practising Human Resource Management which was inherited form the west. The author argues that most of the ancient cultural practices, functions and habits draw parallels with the modern-day Human Resource practices. Specifically, old tank culture that was existed from Anuradhapura era was an important area to study due to prevalence of said similar characteristics. There was not enough exploratory research carried out to look at the similarities and comparisons of both ancient and modern human resource parctices. Therefore, the author intends to study the said parallels between Human Resource concepts and ancient HR concepts and practices followed by the tank culture.

Rationale

The author selected this topic specifically on tank culture for a few reasons. One of those can elaborate as this. Private sector in Sri Lanka is implementing modern Human Resource Management practises in their organizations. Though there is Human Resource Management in practice, rate of filing of annual court cases about the industrial disputes are increasing. Table 1.1: Annual rate of labour disputes in Sri Lanka

Year	Annual Disputes
2009	126,532
2010	111,433
2011	80,474
2012	153,628
2013	212,684

Source: 2009-2013: Dispute and Settlement, Ministry of Justice (Justice, 2013)

The researcher is of the view that studying the ancient human resource practices and provide data to udeertand the inherent mindset of the working community of the country.

The coure of the Sri Lankan village culture could be easily summarised to a culture that was grown around the tanks by using the water provided by the tanks. Tank water in other words was the live wire of the ancient self-sufficient economy which lasted for nearly fourteen centuries in Anuradhapura period. The author also has a personal interest on the subject and there is a lacuna of research studies on the subject matter.

Problem Statement

Human Resource of a country is significant since it is the only out of other resources resource which possesses the creative element. Humans have used the potential of creativity to smooth run the production process throughout the past. Despite the growth of the discipline, there were many good HR practices continued by the communities even prior to twentieth century. Sri Lanka had one of the world's best irrigation cultures and poses a rich human resource management tradition entwined with it. However, those good human resource management practices, production strategies and traditions related to past have not been subjected to specific research. The problem remains that

these cultural elements may be forgotten by the future generations. Losing such indigenous knowledge in future may adversely affect the paddy industry in future. On the other hand, the academic community may find valuable resources to support and develop the existing paddy and inland fishing culture in future.

The Objective

The General objective is to find the human resource functions that can be found in the in old tank cultue in Sri Lanka.

The Method

Anurdhapura was selected as the geographical area to collect the sample for below reasons
1.   Anuradhapura was selected as the geographical area since it is the centre of Rajarata Civilisation
2.   Still one can observe there remnants of ancient cultural practices
3.   The author has easy access to the communities since author has close links with the same geographic area.
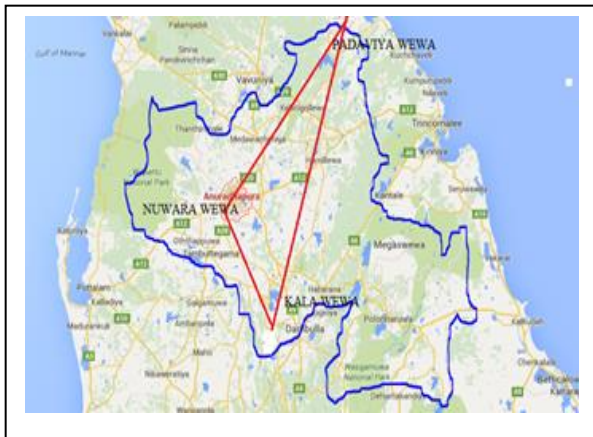
Map – North Central Province

Above map shows the part of Sri Lanka. In that map the area highlighted in blue colour shows the north central province. In that blue border, can observe red coloured triangle. It is ancient Nuwarakalawiya. Author collected data from the villages that were in nuwara kalawiya. Some of those villages are Kallanchiya, Eliyadiwulwewa, Thalgaswewa, Athawetunawewa and etc.

Human Resource Management guidelines could be found in various functions and activities that were carried out by the villagers who live around the areas called 'Tank Villages'.

Figure– Tank village   (Source – Water in culture,1992)

The under-mentioned activities could be categorised as main functions of village life that were settle-downed around tanks. ,

1. *Mulumas ellima(*traditional way of fishing in dry season)

2. *Bethma* method (traditional way of dividing land for paddy cultivation in dry season)

3. *Wariga Sabhawa* (a social group designed to solve conflicts in the village)

4*. Katti kepima* (maintenance in tanks)

5. Aththam method (manpower distribution)

6. *Functions* (tree types of functions like festivals that is inherent in tank culture)

The author tries to draw a nexus between the collected data and   the activities that has chosen as human resources enablers

Mulumas Ellima

Ancient villagers, who used to live in tank villages, considered month of August as one of the driest months in the year. According to Sinhala month system this month is called *Nikini*. Normally in month August average temperature in tank villages' is around 200 C- 360C (Paul Wisely, n.d.) Due to this dry weather water volume of some of the small tanks starts to reduce

rapidly. Sometimes there is a possible risk of droughts affecting to large scale tanks as well.
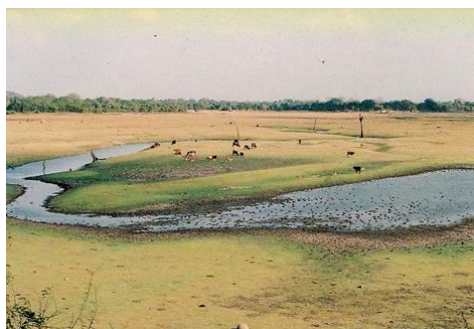

Figure – Tank Thisa in dry seson
Source: K.M.I.Sawarnasinghe, 2004

Figure - Ana bola
Source: K.M.I.Sawarnasinghe, 2004

During the dry seasons tank water will remain only in the deepest areas of the tanks. In such condition fish in tanks are gathered in deep waterlogs. Fish such as, *thiththaya, dandiya, kawaiya, pethiya, theppiliya, hirikanaya, lula, ada, theliya* and etc could be caught in abundance. However, in Sri Lankan ancient tank culture even though all of the fish in the tanks gathered in a small area, it is prohibited fish as fishermen wish. There are two main reasons to have such a self implied regulation.

1. If few of the villagers do fishing as they wish, majority of the village will miss opportunity to consume that resource equally.
2. If people do fishing as they wish in unplanned manner it will badly affect for the fish breeding in the tank.

To avoid both of these reasons, people who are living in tank villages do an activity called 'Mulumas Ellima'.

During dry seasons, gama raala or wel widane, (person who are having authority of decision making about things related to tanks) symbolically convey the message about the ban for the fishing to villagers. It is call as *ana bola bendima. Ana bola* is a symbolic massage of a ban for some of the regular activities. In this case, an object named ana bolaya is locating in the deep area which is water is remaining in the tank. Ana bolaya is prepared as below.

1. Selecting a pole of Divi kaduru (*Pagiantha-dichotoma*) (Rathnayake, 2013) which has 4 to 6 feet of height.
2. On the top of that pole have to attach bolpana (*Glycosmis angustifolia*) (Barberian ayurweda resorts and University of Ruhuna, 2013) branches which has 3 parts.
3. Attach those branches with a white piece of cloth. (Bandara, 1983).

After ana bola bedima the villagers will refrain form fishing in the tanks. Then, wel vidane decide a date for fishing in the tank after discussing with all the people in the village.

Villagers who are participating for the event should bring karak gediya or athanguwa (fishing equipments). They are not using nets, fishing rods or other equipments that they used for fishing in other days of the year. By using karak gediya they can only catch big fish where small fish will be served for sustainability of the resource. Due to that the village community will not face a shortage of fish in future.

Figure - Karak gediya
Source: K.M.I.Sawarnasinghe, 2014

Another speciality of this event is, that the non-participation of females.

On the very morning of that pre-defined date, one of the male adults of all families in the village will be gathered to the tank bund for the Mulumas Ellima. Wel vidane in the village starts the event after praying at sanhida (a place where villagers perform their religious activities generally located near big tree). After that act they start fishing. Participants do fish in a systematic way by performing a line. They cover large area of the tank till evening. But any of those people are not supposed to take fish home. They gather those in one place for distribution.

The significant part of the event is distribution of fish. At this stage they distribute fish to the entire community of the village. The total process during the initial stages could be summarized as below,

1. One portion is offered to temple in the village
2. Second portion is to widows, mothers with infants and pregnant women in the village who can't participate for the event
3. Third portion is for Wel widane.
4. Next portion is for village doctor.
5. Then they separate other portions for the visitors in the village if there any
6. Finally, they distribute fish equally among the participants (Siriweera, 2009)

The Mulumas Ellima is conducted within a day or two. At the end of the event the wel widane lift anabola thahanchiya (restriction for fishing). This type of event was last happened in 1981 at

Nochchiyagama (Swarnasinghe, 2015). According to the data collected in interview mulumas ellima hapened in Katukeliyawa in 1980's (Banda, 2015).

When looking at this event in Human Resource Management (HRM) point of view, we can observe ancient people who lived in tank villages had unknowingly applied elements of modern HRM theories in their main events of day to day lives. The main theory that can observe in this event is EQUITY THEORY. It describes that people should be treated fairly and equitably and employer should not be bias (Chapman, 1995). As in that theory all the villagers that contributed for that event get equitable portions. It makes villagers were happy and more loyal to the work that they done as groups.

Also, we can observe that the way of communication in this function. Wel widane was an aristocratic leader. However, when deciding and fixing the dates for the activity any one can argue and discuss and give an alternative date which could be considred as a democratic element. This person is in the village, so any one can go there discuss further matters. It is like modern-day OPEN-DOOR policy that is functioning in most of the private ector offices and organizations. An open-door policy literary means, that every manager's door is open to every employee. The purpose of an open-door policy is to encourage open communication, feedback, and discussion about any matter of importance to an employee (Healthfield, 2015).

After the mulu mas ellima method the catch is distributed among the families who are not able to participate for the event such as widows etc. It helps to increase the mutual bond and understanding among the villagers. Modern day HRM specialists are highlighting the importance of enhancing the mutual bond and understanding among the employees.

According Fredric Herzbergs Two Factor Theory there are some job factors that result in satisfaction. By giving reasonable portions to whole village there were less conflicts and less de-motivation factors in the village.

Bethma method

There are paddy fields devided among tankssince those fields are cultivated from the

water provided by those tanks. Those paddy fields can divide into two parts such as:

1. Purana wela/Maha wela (Purana wela means paddy fields that are located near tank bund. Those are traditional cultivation lands. Normally every family in the village has ownership of these fields)
2. Akkara wela (Akkara wela are the land areas that started cultivation in recent past.)

In some seasons it is difficult to cultivate all those lands in the village due to lack of water. In such situations, villagers held meetings with wel widane to decide the cultivating areas in that period. They are coming to dictions about cultivating areas with the aid of *Diya keta pahana*. *Diya keta pahana* is an instrument like a pillar that used to measure the water level of the tank.

Figure - Diya keta pahana in sluice of kala wewa Source: K.M.I. Sawarnasinghe, 2001

After coming to a decision about water capacity, they are deciding the land area that suitable to cultivate (each, 1961). Normally villagers are selecting fields that is close to the tank. Prof. Siriweera states in interview that the land area is divide equally among the farmers and do cultivation under this Bethma method (Siriweera, 2015). In his book H.W. Kodrinton shows, farmers collecting their harvest regardless the ownership of the land (Kodrinton, 1980).

Bethma can divide in to 3 main categories. Those are,
1. Sama bethma
2. Irawili bethma
3. Peralum bethma

Normally under this Bethma method new land area is distributing among the farmaers according to the ratio of their own lands. But under Sama bethma method, farmers cultivate the land area and divide whole harvest equally among them. Iravili bethma means cultivating selected lines of the field. However, this is nota very popular method. Under Peralum bethma method, there is a rotating system to cultivate. For example, in this time if a farmer is given a nearest field to the tank, next time, he will have to cultivate the land that is located distant from the tank. Cultivating land areas are rotating among the farmers time to time. When analysing these facts, we can observe there is also many modern HRM practices such as, motivation, equity, two-way communication and simple structure as well.

Under Bethma clear communication process takes place. Farmers starts their work with clear understanding about the work. According to modern HRM teachings, clear understanding always leads to higher productivity. It enhances the efficiency and productivity of the employees. In tank villages farmers had also done their work effectively and achieved their goals when collecting the harvest due to this clear understanding.

Wariga Sabha the Hereditary Forum

This is a social system that used to minimize the conflicts in the village. In tank villages this practice can be observed. Though Wariga sabhawa does not show any connection to tanks, this is existing practice in tank villages. Wariga sabhawa is a part of tank culture. E.R. Leach once done a research in tank village called Pul Eliya. This village is still exiting in Anuradhapura district. In that village he had experienced this Wariga sabhawa. Old, well experienced wise people in the village hold the headship of Wariga sabhawa.

People who have done minor offenses will not be considred under Wariga Sabhava. They were advised and guided by an elder person. Most common case, that can observe in these places are low cast marriages. People, who done marriages regardless the cast have to serve the wariga sabha. After substantial discussions and arguments wariga sabhawa generally fine the accused and then accept that person to the society again (Leach, 1961). Whne a culprit proved in wariga sabawa accused should face to punishment according to the fault. This punishment will start with a practice called

Bulath Nambuwa (giving beetles to villagers. In dry zone beetle is a rare and luxury thing) and sometimes ends by silver coins. But accused can appeal. Authority on that appeal is with Hene mama (village washman). Due to these reasons' villagers are always careful to not to do faults. It is an indirect method to keep villagers away from doing wrong things.

In these wariga sabha also reflects some HRM theories and practices. Constructive advising method is the 1st step of solving the minor conflicts and faults in modern human resource management. That method is called as sandwich model. It is used in tank villages also. Using sandwich method, now a day's employers are giving encouraging feedbacks to their employees. It is a technique that use as praise 1st, then show the fault and finally praise again It reduce the negative impact on the employees and motivate to do the work right (Belludi, 2008).

Heads of the wariga sabhawa are most respectable people in the village. They are getting great respect due to this post as well. Maslow (1943) describes needs of people and how it is changing step by step. He also describes that after earning enough money and fulfilling most of the needs, people seek for social recognition. They will be motivated only by social recognition in this stage (as cited by McLeod, 2007). In wariga sabhawa can observe this same characteristic. That is giving social recognition to right person at right time. In other words, it can call as fulfilling psychological needs of people in the society.

Wariga sabhawa practised decentralised authority. There a team of people are taking decisionsns instead of a single person. According to Louis A. Allen, "Centralization is the system and consistent reservation of authority at central points within the organization." Same person explains decentralization as, "Decentralization refers to the systematic effort to delegate to the lower level all authority except that which can be exercised at central points. Decentralization is concerned with the placement of authority with responsibility." According to Joseph L. Massie, " Decentralization as an organization concept refers to the pushing decision making to the lower level of the organization." (as cited by Puri, 2011). Due to this characteristic can get most fair diction about the matter by the wariga sabhawa.

Katti Kepima

Katti kepima means doing relevant routine maintenances in the tank. Earlier it is known as wewe rajakariya. One member of each family that are owners of paddy fields should participate for this work and it is compulsory. If someone does not participate, they will not get water for next cultivation season from tank. The tank is considred to be a public property. That attitude helped to protect tanks up to date.

In the dry season wel widane holds a meeting with villagers to discuss about Katti kepima. They decide exact dates for the event. People should do Katti kepima in separate dates that wel widane allocates for them. Kattiya means the area which is having 10 feet of width in each side and 01 feet of depth. This katti kepima is done in inside of the tank. But villagers can't do this as they wish. Wel widane shows the area that they should do katti kepima. Without his supervision people never do any cut in the tank. The soil that gather after katti kepima have to be keep in a place that is shown by the wel widane. Normally they use that soil to make the tank bund stronger.

Figure Repaid tank bunds of Ihalakagama wewa
Source – K.M.I. Swarnasinghe,2004

With the annual monsoon rain fall mud will collected in the tank. By doing katti kepima, the mud layer gathered throughout the monsoon will be reduced. But if the remove more than soil that they needed it will badly affect for the water volume of the tank. If they remove more, water absorption speed will be increase. As a result of that villagers will suffer from lack of water in dry season (Vithana, 2008).

There is a process of planning before the activity take place. In modern HRM practices also can see the process of planning such as:

1. Develop objectives
2. Develop tasks to meet those objectives
3. Determine resources needed to implement tasks
4. Create a timeline
5. Determine tracking and assessment method
6. Finalize plan
7. Distribute to all involved in the process (Woods, 2003)

The main objective of katti kepima is cleaning the the tank and remove the layer of mud. It is the very first step of planning in the cult ication process. Then Wel widane will attend the activity as the 2nd step. Third well widane will determine human resources and other equipments for the task. They create timeline and plan of work also. It comes under 4th and 5th steps. According to that there are no overlapping works and all have to work equally. At the meeting they finalize the plan. It is coming under 6th step in modern planning process. When villagers are working Wel widane always maintains a close supervison on that. All have to work under his supervision and guidance. Finally, all come to work with clear idea about individuals work as the 7th step as mentioned above.

Another human resource practice that can observe in this activity is forecasting future needs. People do katti kepima to fulfil future need. That is protecting full volume of water capacity in tanks. In modern HRM also people do future challenge forecasts to face coming up challenges successfully. By forecasting the future, organization can get an idea about the future of the business that they have to face. By understanding it, owners can adjust the organizational structure and they can prepare to face those. Katti kapima is like that because if villagers do not remove mud in tank, the water volume of the tank will be less in next monsoon. It will affect badly to cultivation and all other day to day activities of the villagers.

Aththam method

Figure - Villagers do ploughing according to Aththam method
Source – Water in culture, 1992

When villegers need to cultivate or collect harvest in their fields, they do it as groups. Owner of the land invites villagers to work by giving beetles. On the morning of a predefined day villagers gathered near the field. Breakfast, Lunch and tea should be provided by the field owner. Though these activities were hard and needed effort, villagers seem to enjoy the work. There are folk songs tossing in these occasions. In some villages, wajjankarayo (people who are for play instruments like Bummediya, Udakkiya and etc) had played when others are singing. As the skills people divide their works as do cutting, do collecting and etc. When somes are working some will take small breaks to chew beetles. Some people exchanged their work with others. All the people are working without charging wages. As explained above, all the fields in the tank village cultivated by using this method (Menike, 2015).

This method is also an example for division of labour in modern Human Resource Management. Division of labour came to place in the time of Industrial Revolution happens. According to division of labour by dividing tasks according to the skills of people can improve the efficiency and effectiveness of the people (Pettinger, 2013). In aththam method there is a division of labour. People who are skillfull in each work such as palying music instruments and harvesting etc. are allocated to do the same.

Flexi working hours are modern trend of Human Resource Management. Flexi working hours means doing work as employee wish. But finally, they have to complete the task within given time frame (LSE, 2014). Similar to that people who are participating to aththam method

do their work leisurely but complete it on time in right manner.

Job rotation is also can observe in this method. Business dictionary states that job rotation means,

"A job design technique in which employees are moved between two or more jobs in a planned manner. The objective is to expose the employees to different experiences and wider variety of skills to enhance job satisfaction and to cross-train them."

But observing the characteristics of division of labour, anyone can question how it can tally with job rotation. In division of labour people are working according to their skills. If some person having skills for cutting, collecting and keeping the harvest can job rotation implement in that place. He or she can exchange their work with others. It will help to reduce monotony of work. Like that job rotation will reduce.

Mutual bond is also another speciality in this method. Improving mutual bond among the employees is become a challenge in present day organizations due to the competition. But in tank villages people improved their mutual bonds along with their day to day activities also by using methods like aththam. Motivation will be also there due to the various types of folk songs and instrument playing. Like that in aththam method which was in tank villages can observe many modern-day Human Resource Management methods.

Functions

There are number of functions and rituals that woven around the tank culture. From those there are 3 most common functions such as,

1.   Mutti newum mangalya (Function do with fresh clay pots expecting prosperity)

2.   Pooja wedilla (Rare function do with a gunshot to protect over filled tank)

3.   Kiri ithirawiima (boiling milk expecting prosperity)

God Aiyanayaka is the main god that is connected to all of these functions. Villagers' concern god Aiyanayaka is the protector of tanks and tank villagers. According to the interview with administrative grama niladari Chandrasekara in Anuradhapura, author found that god Aiyanayaka is the god of wew bedi rajjaya (Anuradhapura and some parts of the Polonnaruwa area) and Nuwara kalawiya(the area situated within Nuwara tank, Kala tank and Padawiya tank) (Chandrasekara, 2015).

There are various types of opinions about god Aiyanayaka in Sri Lanka. There are two main openions about the origin of this god. Those are,

1.   God aiyanayaka was created by god Vishnu. He has created 7 princes. Among them eldest one was god Aiyanayaka. (Darmadasa, and Thundeniya, 1994)

2.   According the popular narrative there was villager called Aiyanayaka in Malwara[23] country. As god Vishnu ordered he and other 7 came to Sri Lanka to develop cultivations in wew bedi rajyaya. They entered to Sri Lanka from Jaffna and established in area located between Jaffna and river Deduru and cultivated the area. (Mapote Chandrajothi, 1954). Some people say that he is a north Indian engineer called Aiyar. (Levers, 1889)

Though there are various opinions, villagers have given superior state to god Aiyanayaka in their day-to-day lives. People in tank villages' have known this god as Aththappa or Muththappa also. According to Parker another name for god Aiyanayake is Wanniya Bandara (Paker, 1984).
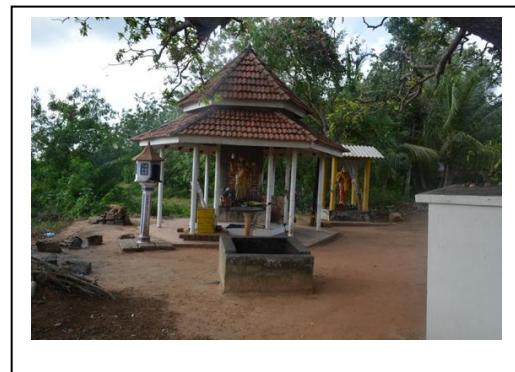
Figure– Aiyanayaka Dewalaya in Garayakgama
Source – K.M.I. Swarnasinghe - 2015

A. Mutti newum mangalya

This function is common for every tank in Sri Lanka. R.W. Ievers this is the most significant ritual in a tank (Ievers, 1889). People in the tank villages are preparing for this event from months before up to date. They are not going out from the village, not eating whatever they like, not going to the places of interest like before and etc. They call this as Pe wima or special preparation, (Rathanasiri, 2015).

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Villagers know this function as Hathkattuwe rajakariya and Game rajakariya also. Normaly this function held once in seven years in large scale tanks and once in 5 years in small scale tanks (Maneewa, 2004). After monsoons when tank is filled with water people decide to hold this. Wel widane and other villagers participate for this meeting. They select Kemmura date for the event. Kemmura means special days that separated for the god. Next villagers invite "Badahela naide" village potter to make fresh clay pots. If there is no potter in the village Wel Vidane invites potter from nearby village. This invitation is done in a sacred and respectable way. From the date they give the invitation to make clay pots people spent their lives very religiously (Hettiarachchi, 1979). Then Wel Widane and respectable villages that are having upper cast, invite Hene maama (person who cleans the dirty clothes in the village) and Wajjan karayo(People who play musical instruments) for the event. This function starts a day before to the auspicious day. From that day, villagers are doing lots of rituals in entire two days. Finally, they do Kiri Ithirima (boiling the milk) and hang those fresh pots upside down on the tree nearby tank. All the people who are living in the village participate to this event (Nandasiri, 2015). According to the interviews author got to know that, villagers concern this event as one of the most important events in their lives (Ilangasinghe, 2015).

Figure.   -   Mutti   newum   mangalya
Source: K.M.I. Sawarnasinghe, 2001

Pooja wedilla

This is not an annual function. This is doing when tank is over filled with water and tank bund is in danger of break. This function is also known as, pooja wedilla as same as the hunnanakada mangalya and aiyanamune wedilla. In heavy monsoon seasons Wel vidane and other matured villagers are in on alert about the tank in whole 24 hours. If there is any risk Wel widane decide to do pooja wedilla. After that they create small stand to keep beetle. It is called as bulath yahana. On that except beetle they keep clean pole after washing by turmeric water. Then they pray to god Aiyanayaka and attach cleaned copper coin in that pole. After that wel widane keep that pole in inside of the tank. Specially they make sure to keep a small coin under the water. Finally, wel widane shoots thee gun shots to the middle of the tank. Simultaneously one villager hoots for 3 times. In some areas villagers who are on the tank bund clapped at the end (K.B. Maneewa, 2015).

Figure- Damaged tank bund in Kidawaramkulama tan
Source: Athula Bandara, 2004

Kiri Ithirum M angalya

This function could also be observed in most of the villagers in dry zone. After collecting the harvest villagers are doing this function. It may be in August or in April. All the villagers in the village participate and contribute for this event. Villagers are contributing for this event by providing rice, coconuts and etc materials that needed to perform the event.

In kemmura day (a day that concerns as a day of god. Normally Wednesdays and Saturdays are concerned as kemmura days) villagers decide to hold the function. In large scale tanks on the tank bunt there are god's kovils. In Minneriya and Kala tanks can observe those. But in small scale tanks there are not any kovils in the tank bund. But there are places called Sanhinda in that location. It is in under a huge tree like banyan. Sometimes under that tree people draw image of a god aiyanayaka with piece of lime. But in some places, there is just a oil lamp in front of the tree and small branches of trees are hang in the large tree. In front of that tree Kiri Ithurum mangalya is

performed. Most of the times, this function is held in evening of the kemmura day by males.

Figure - Sanhida situated on the bund of Nillaggma tank
Source: K.M.I. Sawarnasinghe, 2012

A day before the event, people handover their contribution for the function to the wel widane. On the auspicious day all are gathering near the sanhida with all the materials that needed for Kiri Ithurum mangalyaya. Then god's jewelleries/regalia are taken near to that place in a very sacred manner. In Nuwara kala wiya, it is known as, Raja Kada (Disanayake, n.d.). After that they prepare to boil milk in a fresh clay pot. It is named as Raja heliya. But in some areas, they are using more than one pot to boil milk. Another speciality is the milk that uses to boil is coconut milk. Also, all activates are done by males in the village. Females are not participating for this event.

Figure 4.6. 2 – Prepairing milk rice
Source- Water in culture, 1992

As the collected information in interviews, according to the way of the milk boil villagers believe that they can tell predictions about the next harvest and the village. After boiling milk people make milk rice out of that. This is also done by male in a sacred manner. Finally, they pray and distribute milk rice among the villagers. All the villagers including females eat this milk rice (Hemarathana, 2015).

There are slight differences in the rituals of kiri ithurum mangalya from village to village. (Swarnasinghe, 2005).

Three of above explained main functions in tank villages are directly enhance the unity and mutual relationship in-between the villagers. In modern HRM practices there are number of motivation theories and practices such as outbound camps, trips and etc to develop this mutual bond and understanding among the employees. By these functions monotonous of the villagers is reduced. It helps them to work more freshly and motivated manner.

As same as that, when analysing functions in old tank villages can observe modern job specialization in there. According to business dictionary, job specialization means,

"The process of focusing one's occupational concentration on a specific area of expertise. An increase in job specialization among employees can make them less flexible since it tends to reduce their ability to perform other types of work within the business that fall outside their particular specialty"(Business dictionary).

There are plotters who are making clay pots, there are specific person to clean the clothes, to play instruments there is another personality and etc. Like that by being specialized people for special works, they completed their works more accurately in that society.

Also, can identify most of these functions are male oriented functions. Females are not participating for these events. But in modern human resource management female male domination is unaccepted.

By the functions like pooja wedilla can observe the attitude that villagers are having towards the tank. Though tank is a lifeless object it is the live wire of villagers. The respect towards the tank and the aim to protect it is very much higher among the villagers. Modern HRM practices guiding employees to protect the workplace and reduce the waste. 5S method is example for that. 5S method means,

"The 5S concept is one of several lean manufacturing ("Lean") tools designed to improve workplace efficiency through facility-wide organization and cleanliness. Each of the 5S guidelines help managers and workers achieve greater organization, standardization, and efficiency—all while reducing costs and boosting productivity. Some core principles of the 5S concept involve creating and maintaining visual

order, organization, cleanliness, and standardization. With these goals in place, the hope is that workplaces can become more efficient, organized, and equipped to carry out daily tasks in a safe manner. (Editorial, 2015)"

Pooja wedilla function is done to protect the tank in the village. All of the teachings in 5S concept are done to protect the organization and increase the productivity. But in this function cannot identify 5 steps but the final objective of 5S and pooja wedilla function is same. That is protecting the organization and tank.

According to the main six of above analysis, can observe there were modern human resource management practices in the old tank culture. All of above analysed 6 main activates are having more than one modern human resource management practice. It shows that Sri Lankan culture has its own identity of managing people before western world invented those theories and practices.

Conclusion and Findings

Author has done this research, to find Human Resource Practices that was in the old tank culture. In the study can observe 5 main practices in the tank culture. Those are,

1. Mulumas ellima
2. Bethma method
3. Wariga Sabhawa
4. Katti kepima
5. Aththam method
6. Functions

There are 3 main functions such as,

1. Kiri Ithurum mangalya
2. Pooja wedilla
3. Mutti newum mangalya

By analysing the found data can observe there were strong human recourse management in that culture. Most of the work was done by human force in past due to lack of developed technological equipments. Active participate of man is much higher in that society. But there will be very few conflicts, according to the found data most of the activities were done smoothly.

In the analysing author has highlighted the facts that related to the HUMAN RESOURS MANAGEMENT. Most important thing is, in old tank culture there were modern HUMAN RESOURS MANAGEMENT practices that we are learning today. Modern practices were originated

in western world and now came to Sri Lanka as new teachings. But, our ancestors had used those before centuries ago. It is the most significant factor in this study.

Identified modern Human Resource Management theories and procedures in old tank culture can be summarised as below.

Table 5.1: Summery of findings

Ancient Parctice	Modern HR Practice
Mulumas ellima	Equity theory. Developed by John Stacey Adams, in 1963. Two way communication Open door policy Increasing mutual bond Two Factor Theory by Fredric Herzberg in 1964
Bethma method	Democratic leadership Simple society Clear flow of communication
Wariga Sabhawa	Sandwich model Hierarchy of needs by Abraham Maslow in 1943 Decentralized authority
Katti kepima	Planning process Forecasting future needs
Aththam method	Division of labour Job rotation Motivation Mutual bond Flexi working
Functions	Motivation Job specialization by Charles Babbage in 19th century 5S concept by Japanese people

Source; Researcher's own creation based on s tudy data

Above mentioned are common and important human resource management practices that can observe in present organizations. But those were in practice from centuries ago in our tank villages. This is the importance of our culture. With the knowledge and wisdom that gain with experience and the discipline that comes with religion, had sharpen the thinking power of our ancestors.

They found and implemented those successfully before the birth of the fathers of modern Human Resource Management.

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The Drift of Ancient Kingdoms in the Post-Polonnaruwa Period: A Critical View of the Causes of Decline of Sinhala Kingdom

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Abstract— The Sinhalese monarchy has its origins in the settlement of North-Indian Aryan immigrants to the island of Sri Lanka. According to historical records, the first Sinhalese kingdom was established by King Vijaya in the valley of Malwathu-Mahaweli river in 6th Century B.C. It was subsequently unified as a state during the reign of King Duttagamini and thus, the Rajarata kingdoms became a power center of administration and continued for nearly fifteen decades. However, one can notice a gradual decline of the Sinhala Kingdom after the latter part of the thirteenth century, and the geographic drift of the center of power had also taken place over time. This study was aimed at analyzing the causes of the drift of the medieval ancient kingdoms, especially in the post-Polonnaruwa period. The researches argue that the rationality of the views produced by different authors on various causes could be questioned. The causes, found in various sources, such as climatic change, collapse of the old order, exhaustion and infertility of soil, the spread of malaria, foreign invasions, the collapse of the irrigation system, and the attractions offered by the Wet Zone as against the Dry Zones are examined in detail by the researchers to gauge what has happened in the past.

Keywords: *Rajarata Kingdom, Oriental Despotism, Invasions*

Introduction

The historical period of Sri Lanka starts with the arrival of Prince Vijaya in the 6th Century BC. Since this historical event, there were several waves of migrations, such as the arrival of princes Baddakachchana and Arahath Mahinda (233 CE). During this period, there were various foreign groups with different cultural backgrounds that arrived in Sri Lanka for the purpose of inhabitation. The first immigrants of Sri Lanka settled in the riverbanks of Malwathu Oya which was later developed as the Kingdom of Anuradhapura. The agriculture-based civilisation of Anuradhapura evolved mainly after the advent of Buddhism. Later, due to invasion by the South Indian Chola Empire, the administration was moved from Anuradhapura to Polonnaruwa in the tenth and eleventh centuries. The main centers of power, Anuradhapura and Polonnaruwa were located in the administrative heartland referred to as 'Rajarata'. The thriving economy of agriculture-based Rajarata was supported by an efficient reservoir system. The notable factor is that for nearly eighteen centuries, political, economic and social administration was centered around Rajarata. Archaeological remnants of Rajarata reveal a civilisation that flourished by following the core values of Buddhism and Hinduism. Towards the end of the twelfth century, the ancient kingdom confronted many difficulties. After a century of growth, the energy that had founded the city of Polonnaruwa, built the reservoirs in the Rajarata and retaliated the advances from South Indian and Burma. By the mid-thirteenth century, the great city was more or less abandoned and the Kingdom of Polonnaruwa collapsed. This also led to the collapse of the hydraulic civilization of Malvatu-Mahavali. This phenomenon as per W. I. Siriweera is the drift of kingdoms to the Southwest of the country.

Simultaneously, there was concentration of population in the north, resulting in the emergence of an independent Tamil kingdom in the Jaffna Peninsula in the last quarter of the 13th century. Dambadeniya, Yapahuva and Kurunegala in the Southwest successfully became the capital of the Sinhala kingdom from around 1232CE. onwards, but their economic and

cultural achievements were never on par with those of Rajarata. Besides, Post Polonnaruwa these centers of power of the Sinhala kings existed only for short periods. The most powerful ruler of the time - Parakramabahu the 2nd who vanquished Magha, started the restoration of Polonnaruwa, but he established his base at Dambadeniya. It is said that the area around the Thuparama in Anuradhapura was in wilderness when his son Vijayabahu the 4th started the restoration at Anuradhapura. The "Culavamsa" states that the latter assigned the protection of the city of Anuradhapura to Vanniyars or forest chiefs; proceeded to Polonnaruwa and restored it as well before leaving for his capital Dambadeniya. Historians are not in agreement on the cause led to the depopulation of Rajarata. The reasons for the decay of monumental monastic complexes, the intricate irrigation network and the degeneration technology which helped the ancient Sri Lankan to build an impressive civilization are still being debated. This paper critically analyses the causes that had been presented by various historian that said to have led to the decline of Sinhala kingdom in Post Polonnaruwa Period.

Thus the researchers argue about the rationality of the views on various Several causes such as climatic change, collapse of old order, the decline of agriculture due to soil erosion, exhaustion and infertility of soil, the spread of the malaria, foreign invasions, the breakdown of the elaborate administrative and social fabric which sustained the complicated irrigation system, and the attractions offered by the Wet Zone as against the Dry Zones have been postulated by various scholars.

Discussion

A. The Northern and South Indian influence vs. the decline of the medieval Rajarata kingdom

Close commercial contacts between India and Sri Lanka are reflected in the many ancient written records and they highlight the fact that the Island was peopled by merchants in ancient times. According to Professor Paranavitana, accounts of the peopling of the Island, with merchants playing a leading role are more worthy credence. And the episode of Kuveni reflects the victory of immigrants over the indigenous people and the synthesis of their cultures, of course with the predominance of the superior culture of the migrants. Therefor it can conclude that the same

happened at the later part of the Anuradhapura kingdom. Although Sri Lanka had closer cultural relations with the North India, South Indian cultural interference was insignificant But, Hindu influences could be seen through the Sri Lankan society as well as it had an impact to the popular Buddhism. According to Culavamsa some Buddhist kings patronized Hinduism. Along with scenarios such as the influence of Buddhism, it can state that they did not pose a severe threat upon the stability of socio-cultural co-existence within the kingdoms. Simultaneously, there were frequent threats carried out by powerful South Indian states which affected the stability and the security of the Sri Lankan state. Thus, this was an era in which territorial annexation and conquest, or direct political influences were achieved through armies marching across land or by sea and confronting opponent face to face in the battle. The series of South Indian invasions of Sri Lanka are commencing with the robbing of the royal throne by Sena and Guttika, who were the sons of a Dravidian entrepreneur engaged in trading in horses. During the weak rule of Mahinda V (982-1017 AD) Rajaraja I invaded Sri Lanka about the year 993 A.D. And king Mahinda V had to flee to Rohana region while the son of Rajaraja I known as Rajendra I, seized the crown, jewels, the diadem and other valuables to India. It marked the long-reigned Anuradhapura Kingdom which lasted for 13 centuries.

The Cholas, having sacked Anuradhapura (1017 AD) moved the capital to Polonnaruwa which they named Janantha Mangalam and it marked the initiating step towards the shift of the Sinhalese Kingdoms. It was located on the left bank of the Mahaveli river, was strategically located to thwart the resistance movements directed from the Rohona region, which was the safe heaven for rebels and the birthplace of internal insurgencies against the foreign captive within the country.

While the Cholas era was able to grasp the power over Rajarata region, several leaders organized resistance against them mainly from Rohana but occasionally from the central mountain regions as well. Several regional leaders did want to make an attempt to re-gain the power into their hands including the son of deposed king Mahinda V. But Prince Kitti became the only one who succeeds his mission of unify all Sinhala forces against Cholas and establishing power in

Polonnaruwa.During the Polonnaruwa period, only a few who ruled from the capital could maintain their authority over the whole of Sri Lanka. Except for Vijayabahu I (1070-1110), Parakramabahu I (1153-1186) and Nissankamalla (1187-1196) the others were rulers whose territorial power was mainly in the Rajarata part of the Dry zone. Thus, it can claim that foreign invasions played a key role in the decline and fall of the Rajarata civilization. As foreign invasions are nothing new in Sri Lankan history, yet this factor needs to answer questions like what made specific invasion to the decline of Rajarata civilization and how did the collapse come at the latter part of the thirteenth century because On earlier occasions particularly when the imperial Cholas occupied Rajarata from around 993 A.D. and more effectively from 1017 A.D., the Sinhalese fought back and re-established their authority in Rajarata. For an example, Vijayabahu I (1070- 1110) who successfully vanquished the Cholas maintained his hegemony for forty years at Polonnaruva and later Parakramabahu I (1153-1186) made the country productive on an unprecedented manner. But conditions in the thirteenth century were different. Magha who captured the throne of Polonnaruva in 1215 A.D. brought havoc in the country and inflicted terror on the people.

Devastation of Magha and conditions prevalent during and after his reign aggravated the neglect of the reservoir system and it's interconnected canals as well as the destruction of religious and other monuments in Polonnaruva. The remains of the palace of Parakramabahu I "Vaijayantha Pasada" indicate that it had been destroyed by fire. The reddish remains of the walls of the upper story suggest that the palace had been burnt at some point. Charcoal of burnt timber has also been found in this location. The Baddhasimapasada near the Alahana Parivena also displays burnt marks. It is most likely that these destructions were caused during the rule of Magha. According to the Culavamsa, Magha and his warriors 'put fetters on the wealthy and rich people and had taken away all their possessions' They wrecked the image houses, destroyed many cities, ravaged the viharas and maltreated the lay brethren. Magha also gave the monasteries, parivenas and many sanctuaries to his soldiers as dwelling places.' The "Nikaya Sangrahaya" states that the Buddhist monks left their belongings such as books and bowls in places where they

were and left Polonnaruva hurriedly. The events that followed Magha's rule are totally different from the circumstances that prevailed when the Cholas were expelled by Vijayabahu I. Once the Cholas were vanquished, the Sinhala rulers could establish their authority in Rajarata basing Polonnaruva as the capital and there were no further attacks from the Cholas or any other Foreign power.

Chandrabhanu, who invaded Sri Lanka towards the Mid-thirteen century, conquered some of the regions held by Magha. Subsequently he established his authority in certain parts of northern Sri Lanka with the help of the troops from South India. Around 1258 A.D. The Pandyan King Jatavarman Sundara Pandya attacked him and levied tribute but when Chandrabhanu had established himself firmly in northern parts of the island, he defied the Pandyas and as a result, in 1263 A.D. Jatavarman Virapandya invaded his kingdom, killed him and placed a son of Chandrabhanu, who accepted the authority of the Pandyas on the throne of the northern kingdom. Thus, the Pandyas established their power in northern Sri Lanka. This event remarks the beginning of the Tamil kingdom of Jaffna and for several decades thereafter there were two kingdoms in the island. One of these, the Sinhalese kingdom controlled the southern and central parts of the island, the other, the Tamil kingdom of Jaffna, dominated the North. From this time onwards, except for a brief period of seventeen years (1450-67) under Parakramabahu VI, the country was politically divided till the British brought territorial unity in 1815 A.D. Neither the Tamil rulers nor the Sinhalese kings who lived in relative isolation in the fourteenth and fifteenth centuries could establish their capital in the heart of Rajarata but ruled from Jaffna and the South West as there was an equally powerful kingdom close by.

The Sinhalese, in fact, retreated further and further into places in the hills of the wet zone specifically towards South West. The Sinhalese kings as well as the Tamil rulers probably treated the area around Anuradhapura and Polonnaruva, as a buffer region between the two kingdoms. This would also have resulted in the dislocation of the administrative and social organization in these areas. Due to the lack of a strong political center in Rajarata, communication and contacts with other areas declined. The settlements

became isolated and isolation paved the way for stagnation. The local chieftains named Vannis exercised the authority over these isolated settlements. These chieftains theoretically acknowledged the overlordship of either the Tamil or the Sinhalese king but except in one or two rare instances, for all practical purposes were independent. The disunited Vanni chieftains who were scattered all over the dry zone could not successfully organize the labor force required to maintain the reservoir system and its closely interconnected canal system. When the chain system of anicuts, channels and reservoirs was neglected the ruin was speedy and inevitable.

B. Collapse of 'Old Order'
The American geographer and historian of Asia, Rhoads Murphey views that the collapse social and administrative organization or the 'old order' which systematized the construction and maintenance of the complex irrigation system was the main cause for the abandonment of Rajarata Kingdoms. Murphey accepting the concept of 'oriental despotism' which was put forward by Karl Wittfogel, suggests that only a high level of organization and a massive labor force could be able to function the irrigation works and provide their constant maintenance. He also highlights that "Rajakariya" concept followed by the old society was key to have a centralized administration of a despotic nature. In his view the collapse and total disintegration of rajakariya and central authority had an absolute control of human resources adequately explain the abandonment. On the other hand, R.A.L.H. Gunawardena has dismissed the view that the ancient Sri Lankan society fitted into Wittfogel's concept of oriental despotism. He argues that it was multi-centered, where apart from the king, monastic complexes and village level organizations had a role to play in the construction and maintenance of irrigation works. For an example the colloquially known, "*vevai dagabai gamai pansalai*" concept.

Even when the central authority weakened, irrigation system functioned until the thirteenth century. A clear example is the reign of Mahinda V (982- 1017). Due to stiff opposition from mercenaries and the army as well as from people at Rajarata who refrained from paying even taxes he abandoned the palace at Polonnaruva and sought refuge in Rohana and ruled from there from 993 A.D until the Chola conquest in 1017

A.D. The Cholas brought in chaos to Rajarata. Yet, the irrigation system survived and once they were expelled the Rajarata civilization got to another start and flourished. In most periods of recorded history multi-centered administrative apparatus sustained the irrigation network. Not all kings of Anuradhapura and Polonnaruva were strong, but irrigation system was not hampered and disturbed even during the reigns of weaker kings.

Paranavitana, elaborating on the theme of centralization and collapse of the social order argues out that the Sinhalese nobility known as the "kulinas" suffered to the utmost during the regime of Magha and that some of them escaped to areas in which he did not have any control. In his opinion without the kulinas who had the specialized knowledge and experience in administration, including the maintenance of irrigation works, the peasants neglected their traditional obligations towards the state. However, it is hard to believe that the early kings of Dambadeniya who fought against Magha lacked the support of the kulinas or more precisely that of the officials with administrative experience and knowledge. The officialdom of the Sinhalese kingdom on the eve of the Chola occupation was not very different from that in existence at the time of Magha's invasion. They supported resistance movements and after the Cholas were vanquished, the Sinhalese succeeded in re-establishing their social order and the administrative machinery in Rajarata, but they seemed to have failed in a similar task after the defeat of Magha towards the middle of the thirteenth century. Thus, it seems that there is no valid ground to suggest that the suppression of the Sinhalese feudal nobility or kulinas and their escape from Rajarata contributed to the permanent dislocation of the social and administrative organization in Rajarata.

The crucial question one has to answer is why they made no significant attempts to reoccupy Rajarata after Magha's expulsion. Paranavitana having discussed the drain on man power and material resources during the Chola conquest in the early eleventh century and in the subsequent campaigns that led to the restoration of the Sinhalese sovereignty as well as during Parakramabahu's internal and foreign wars states that subsequent generations were not fit enough to struggle against adverse natural forces

and to resist the onslaughts of enemies from abroad. Liyanagamage and Murphey devoting attention to the weakening of human and material resources, suggests that the policies of Parakramabahu I including his expeditions abroad contributed to the sudden and complete collapse which followed his death. The weakening of the Polonnaruva kingdom would certainly have helped Magha to establish his authority in Rajarata, but once Magha's hand was removed, the Sinhalese did not successfully reoccupy strong Rajarata and maintain the reservoir system and magnificent buildings erected by their ancestors. The drain on manpower and material resources after all, is not a phenomenon peculiar to the Polonnaruva kingdom. The last of the Anuradhapura kings, Mahinda did not have resources even to pay his soldiers. Thus, the causes for the decline of the Rajarata civilization and the abandonment of the Dry Zone regions other than Jaffna peninsula have to be sought elsewhere.

C. Climatic Changes

According to R.L. Brohier, T.W. Tyssul Jones and E.K. Cook the climatic changes and the reduction of rainfall were the main causes for the decline and fall of the Rajarata civilization. When Rhoads Murphey, in his article Ruin of Ancient Ceylon' published in 1957 stated climatic change as a cause for the abandonment of the Dry Zone areas, many scholars accepted that views of Murphey is correct. But the climatic factor as a cause for the decline and fall of the Rajarata civilization needs to be reconsidered and henceforth Murphey's arguments have to be re-examined. Murphey in his analysis of the causes that led to the collapse expressed the opinion that climatic conditions of the island in the past were basically similar to those of present. According to him 'Dry Zone droughts are indeed terrible and impressive experiences but occur yearly and especially clearly occurred at longer intervals of 10, 30 or 100 years throughout the ancient period' the Mahavamsa mentions them repeatedly. But it's also to be noted that there is no reference to droughts or famines in any chronicle for more than six centuries in the period between the reigns of Silameghavanna (619-28) and Parakramabahu II (1236-70). Murphey argues that the "ancient irrigation works, fords or bridges suggests that the volume of water, carried by dry zone rivers before the thirteenth century was greater than now". In his opinion one of the

strongest pieces of evidence against climatic change is that the modern and ancient irrigation works are so similar and can irrigate from the same catchment areas the same amount of cultivated land. It is not clear how he estimated the cultivated areas from the catchment areas in the Dry Zone in the past. Some of the smaller reservoirs and canals recorded in the chronicles cannot be properly identified and quite a number lie buried under a mantle of soil after the Dry Zone was finally abandoned. The large reservoirs such as the "Mahagalkadavala" also have not been restored and "Padaviya, "Vahalkada" and Mahakanadarava" reservoirs have been restored only after Murphey published his article.

The small village tanks both in Rajarata and Ruhuna functioned more effectively in the past than now. At present when large and small tanks overflow and spill in a particular year, and if the rains fail in the following year, the Dry Zone experiences drought even after the modern diversification of the Mahaveli River. It is reasonable to conclude that the capacity of the large and small tanks in the past and the area and intensity of cultivation around them were far greater than now. Murphey arguing against a climatic change states that the wet-dry zone line coincides almost exactly with the line between the ancient irrigated and un-irrigated areas. The basis of wet and dry zone divisions in fact tends to vary with different studies in climatology. The 75-inch isohyet was commonly taken as the boundary of the two zones. P.G. Cooray present on the basis of effective rainfall in the Dry Zone suggested a different boundary confirmed later by B.H. Farmer. This boundary agrees generally with that of Holmes who based his division mainly the incidence of drought. On the other hand, without changes in the locations of climatic zones there could be climatic changes or fluctuations. For instance, rain fall may decrease in the wet zone and mountain region resulting in the reduction of water carried by rivers originating from these areas. Brohier and Cook suggested that during the time of the ancient Sinhala civilization, the unbroken mantle of forest in the mountain region induced a more abundant and regular rainfall in the island. It is also likely that the agricultural conditions in the Dry Zone were relatively stable during the period of the ancient civilization.

The numerous reservoirs in the Dry Zone too indicate that the rainfall and water carried by rivers were sufficient to store water to last during the annual seasonal dry period. The flow of water through aqueducts in the royal pleasure gardens below the Tisavava and at Sigiriya and in the refectory at Mihintale was undoubtedly facilitated by pressure of water derived out of rainfall. The large-scale clearance of forest in the highland had resulted in reduction of water supplies and other ecological changes. The wooded slopes in the mountains with foliage acting as a protection to the earth served to break the force of the rainfall, to retain surface soil and to help the ground to absorb some of the moisture. When the ground absorbs moisture, sub-soil springs are formed which afford the rivers the means of maintaining a perennial flow. But conditions have been altered by the denudation of the central mountain forest resulting in the silting of large feeder channels and even rivers. Murphey states that progressive climatic change is 'intrinsically unlikely on meteorological grounds in this part of monsoon Asia marked changes have occurred in the land surface of the north-western parts of Sri Lanka between Tabbova to Tiruketisvaram near Mannal the other hand, according to P.E.P. Deraniyagala, from pre-historic times repeated elevation above the sea and submergence and that the process is a continuous one. With the oscillation phenomenon and other atmospheric factors, it is likely that there were gradual climatic changes.

The earliest map available of the Portuguese connection with Sri Lanka, drawn by the Spaniard Cypriano Sanchez and published by Petrus Plancius sometime before 1601, contains a note which states that the Kingdom of Yala was devastated by sickness three hundred years previously. Certain northern areas in the map are described as "Deserto Par Donea" or "desert through sickness". A later map which can be dated soon after 1638 with the title "Insula Zeilan Olim Taprobana Nune incolis Tenaris which appears to be a Dutch edition of Plancius' map shows a remarkable improvement in the configuration of the island but retains the original letter press. The same note appears on it regarding Yala. The conclusion which can be drawn from this is that the Portuguese and early Dutch writers knew the Dry zone area to be a devastated guesea region. This also points to the fact that climate in the region presently known as the Dry Zone was more salubrious during the era of the Rajarata civilization than it was in the sixteenth century A.D. The thirteenth century also witnessed two famines and droughts, during the reigns of Parakramabahu II and Bhuvanekabahu at least one of which may indicate a climatic change. Although there had been several famines earlier, the only serious one recorded prior to the thirteenth century is the famine that occurred in the reign of Vattagamani (89-77 B.C.). According to the Culavamsa, the famine which occurred during the reign of Parakramabahu II was caused through the 'influence of evil planets' and everything was burnt up'. Corn withered' and 'the whole of the people dwelling in Lanka were filled with the greatest anxiety.

D. Spread of Malaria

The spread of malaria being a cause for the decline and abandonment of the Rajarata civilization is a debatable point. The cause of malaria was advocated by Lucius Nichols, John Still and S. Vere Pearson in the third and fourth decades of the 20th century when malaria was rampant in Sri Lanka, particularly in the Dry Zone. There is very little evidence on the origins and spread of malaria in the global context, although some writers tended to assume that it was virulent in the Mediterranean region as well as in Han China. There is also no evidence for the spread of malaria in Sri Lanka in the thirteenth and fourteenth centuries irrespective of the fact that sporadic references to diseases are made. Once the tanks and the settlements around them were abandoned, stagnant pools would have been good breeding grounds for malarial vector anopheles. But it is far-fetched to suggest that malaria was a major cause the abandonment of the ancient Sri Lankan civilization.

Conclusion

The foreign and civil wars which plagued the country led to oriental despotism and thus the abandonment of the ancient rajarata civilization – a hydraulic society which flourished in dry zone of Ceylon from the latter half of the first millennium B.C to the thirteenth century and the subsequent shift of the centers of population and administration to the Wet zone in the south-western portions of the island have been summarized and synthesized in this research.

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Economic Effects of War on a Country: An Overlook of Sri Lankan Economy During the Period of Civil War

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Abstract – Sri Lanka is a country that faced a war for three decades. Both the extremists and armed forces faced major losses including thousands of lives. Expenses for recruiting and maintaining a large military and the purchase of technically advanced weapons is inevitable during war. Therefore, Sri Lankan governments had to spend money on providing supplies for the armed forces. Lack of security pushes back the tourists who hope to visit a country and this reduced the amount of revenue that should have been brought into the country by tourism. Rate of development of infrastructure underwent a considerable decline due to the situation in the country.

Agriculture and livestock farming were affected, and foreign investments were not brought into the country due to the uncertainty of the final product of war. Thus, the purpose of this paper is to study the effects that the civil war has had on Sri Lanka and show that not only Sri Lanka, but also any other country that goes through a war suffers similar economic consequences.

Keywords *– War, Extremists, Development, Security*

Introduction

The ethnic conflicts which rose in 1983 between the Sinhalese and Tamils of Sri Lanka paved the way for the LTTE (Liberation Tigers of Tamil Eelam) commonly known as the Tigers in Sri Lankan phrasing, to rise as an extremist group that promoted security of the disreputable Tamils in the northern and eastern parts of the country. The movement that started as resistance to tensions in politics transformed into terrorism within a certain amount of time due to the various visions, policies and actions followed by the LTTE. The vision to create a separate state governed by their own (LTTE) government was the main slogan used by the LTTE when recruiting new members to the organization and this also resulted them in receiving monetary support from international organizations such as the Tamil diaspora and Sri Lankan Tamils who bore the same kind of thoughts and mindset. Indian politicians too extended their support to the group until late Prime Minister Rajiv Gandhi was murdered by a suicide bombing initiated by a member of the LTTE in Tamil Nadu. This led to the ban of LTTE in India, India being the first country to do so.

Over the years from 1983 to 2009, thousands of lives have been lost. The armed forces and extremists have suffered similar losses and their families affected brutally. Many valuable and influential personalities of the country were lost due to various outbreaks of the tigers which mainly involved bombings. Former foreign minister Sir Lakshman Kadirgamar and Cabinet Minister Jeyaraj Fernandopulle are notable figures who were victims of terrorist attacks when they were in bureau. Minister Gamini Dissanayake was assassinated in 1994 when he was named as a presidential candidate in 1994. Not only popular personalities, the LTTE was also successful in victimizing clergy and innocent civilians popularizing their abilities.

The Aranthalawa massacre in 1987 where 33 monks were killed and the assassination of Kithalgama Seelalankara Nayaka Thera, the highest priest of Dimbulagala Forest monastery were inhumane attacks on Buddhist monks instigated by the LTTE. The Jaya Sri Maha Bodhi was severely attacked killing around 146 civilians while the suicide bombing at the Temple of the Tooth Relic caused serious damage to the temple and killed 17 devotees there. These situations depict the cruelty and antagonism of the Tigers towards the Buddhist monks and the Sinhalese community. Meanwhile, in certain instances it

was also clear that the rebels also targeted other religious leaders and followers of prophets. This point can be proven from the attacks in Kattankudy that killed around 147 Muslim men and boys.

Furthermore, attacks such as the Kabithigollawa bus attack that killed large a number of civilians provoked the government to take action regarding the increase in violence towards the citizens of the country. The humanitarian mission was started as a counter measurement against the military exploits of the LTTE on the civilians in the North of the country. The authors intend to give a brief understanding on how war has influenced the infrastructure and other economic ideals of Sri Lanka during and after war in the country with reference to a few aspects that help determine the economic stature in laymen terms instead of an economist's point of view.

Economy and the War

A. Infrastructure

Main reason for war between the Sri Lankan government and LTTE armed terrorist group was the rising ethnic conflict or rather racism within the borders of the country. As obvious as it is, it had directly affected to the infrastructure of the country. After the 04th of February 1948, Sri Lanka was established as an independent country. It was not fully independent, but it was allowed to take necessary action and given the chance to improve hard and soft infrastructure of the country. During war, buildings, roads and electricity supply chains in Northern and Eastern provinces of the country were destroyed. Infrastructure development in North and East provinces was halted. People who lived in Northern and Eastern provinces were stuck in their dwellings while they had to go the suffering of their houses being destroyed. They lived as refugees in poverty while millions of moneys was spent on war. War immobilized all infrastructural development in the country. Before war, goal of the Sri Lankan government was to develop infrastructure of the country and uplift standard of living of the citizens. Although this is true, once war happened government gave more attention to the defence budget of the country. Analyzing the budget reports of government before and during war period supports this matter (Fig 1).

A few insights about the social and economic infrastructure of Sri Lanka before 1948 are that electricity and water was limited only to commercial cities. However, after independence Sri Lankan government paid attention to distribute electricity and water to rural areas as well. In order to do that the government built new power stations and distributed cable lines all over the country. To achieve this target government followed various strategies and not long after 1948 came up with development schemes like the Mahaweli development programme. In this project the main attention was on building dams and securing and controlling water of our country to improve agriculture and produce electricity. A few innovations of this project were New Laxapana, Canyon, Bowatenna, Ukuwela, Randenigala, Kotmale and Victoria power stations. However, during war period development projects like Mahaweli development project in Sri Lanka seemed like it had non-continued existence due to economic barriers. Conversely, after war ended it was observed the several development projects were still under constructions and most of them were handled by MAGA. Nonetheless, as a whole, development indicators of the country showed a gradual growth of the economy in the Northern and Eastern provinces only after the war ended

Before 1948 British government only considered to develop roads that economically supported them. They did not consider rural roads that affected civilians. But after independence, government paid attention to improve transportation in rural areas. Nevertheless, infrastructure development in Jaffna was heavily intruded during the war and it is still being completed today. Areas like Kilnochchi and Mulativu where Tamil tigers use to hide have lost its abode as human inhabitations and those places are filled with wild plants and trees; mostly uninhabited. The damage caused during the war is so vast that some of these areas still remain the same, not reconstructed or checked with. After the end of the war there has been massive progress in the reconstruction of roads and bridges in the Northern and Eastern provinces in the country. Several financial institutions lent support to construct these. The construction did not only promote the building of relationships between the North and South physically, but also between humanity, economy and between the Sinhalese and Tamils. Today, thousands of people pass through Vavuniya city to enter the North from the South as well as from the North to the South daily without fear of obstacles or violence. Throughout the year's

government had made arrangements for people who lived in those areas to get proper food, shelter and the privilege to live a healthy life under one roof as a family improving the social status of the area as well.

War expenditure raised year after year, but income of Sri Lanka was not increased. According to reports of Central bank of Sri Lanka, all economical support to and from North and East were cut down by war. War had become a heavy strike to our economy as well as social structure. War completely changed the mindset of humans and their ambitions in life changed into ambitions to survive.

The government had undertaken action to build and restore the railway network into the Northern province with the assistance of the government of India alongside the development of roads within the country by late 2009 and early 2010. Northern railway lines from Vavuniya to Kankasanthurei and Madawachchiya to Thalaimanner were already constructed. The Mannar railway line was completed and the train service commenced in 2015 and ever since the passenger and goods transportation have been greatly improved in the Northern province. This could not be done during the period of war. The train service has traditionally been the most popular mode of transport between the North and South since earlier times and it has been a fascination for thousands of people, tourists, pilgrims including the locals over the years. After the construction of the Northern railway line and restoration of the service, people destined to Jaffna and vice versa have been able to travel with ample comfort and safety.

With the end of war, the government of Sri Lanka had also allocated significant amount of funds to reconstruct and develop the district general hospitals in Jaffna, Vavuniya, Batticaloa, Trincomalee, Kilnochchi and other additional base hospitals in Northern and Eastern provinces. Health services were compatibly neglected during war and the injured soldiers and civilians had to be treated and taken care of under dire situations according to war veterans. The healthcare framework is an important aspect in determining the status of development of a country, but the involvement of the extremists made it impossible for the development of suitable infrastructure related to the health sector.

Social and financial foundations had to be recreated in the war influenced zones of Sri Lanka since they had been unfortunately influenced by the 26 years of common war. The Sri Lankan government has given an incredible consideration to satisfy this errand in the Northern and Eastern regions with the assistance of various governmental organizations. A significant number of the activities were associated with the general national improvement program too.

The main economic crisis happened immediately before and after the end of war. The graph below (Fig. 1) demonstrates the patterns of investments on infrastructure in contrary with monetary separations for war. In spite of the fact that there was a progression in financial sector of the country in the previous years, various deficiencies were showed up in war influenced areas in the immediate years after war.

Production of goods and services of the country was annihilated due to war. This was mainly because the lack of reliable modes of transportation. Companies and factories were unable to transport their finished goods and raw materials, thus breaking off the production process. As a result, , investments and other modes of money inflows into our economy had a massive dropdown. Investors were unsure of their return profits and no individual would take a massive risk of that kind knowing the obvious results.

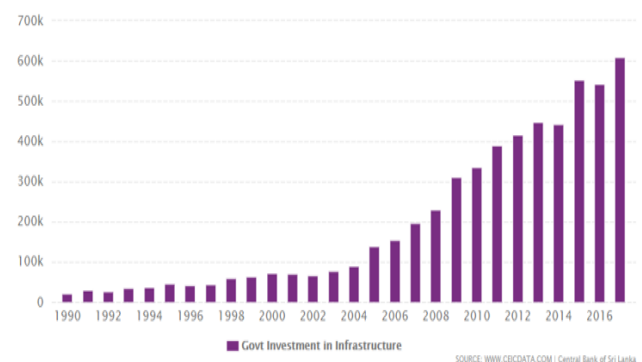Figure 1: Bar graph depicting the Sri Lanka government investment in infrastructure from year 1990-2016

Subsequently the war expenditures were decreasing in 2009, but up until 2015, the economical portion of defence budget was not cut down. Citizens ambition to develop their lives increased because of the government's focus on developing the infrastructure of our country. Sri Lanka with conviction had lot of challenges to

win. Infrastructure of North and East were destroyed by war. Aimed at the enhancement of social and economic infrastructure the government of Sri Lanka initiated a number of projects in the war affected zones since basic necessities such as social and economic infrastructures were very much needed to resettle families and to enable them to follow their daily routines and embrace new technology.

Right after the end of war Sri Lankan government was more absorbed in developing the infrastructure of Northern and Eastern parts of the country which gave rise to the project "Uthuru wasanthaya". This project mainly focused on the development of infrastructure and to increase the living standards of civilians in Northern and Eastern areas of the country and thankfully the results of the projects were far better than expected. "Uthuru wasanthaya" turned out to be one of the successful projects initiated after war. It brought many international cash flows into the country in various forms including foreign donations and foreign loans. In addition to "Uthuru wasanthaya" government started other projects like "Gama naguma, rata-naguma, Api wawamu rata hadhamu, Dayata kirula" etc to uplift and power the development of infrastructure and agriculture within the country.

Many of the projects were connected to inter-governmental organizations and institutions. They participated in the overall national development program through this. These programs have benefitted the people in war affected areas as much as those in the rest of the country who have links with economic affairs in the former war-torn regions. Although there was a progress seen in socioeconomic development in the former war affected areas, a number of shortages like unemployment and housing facilities in some areas still appear which is yet to receive attention from the authorities.

Seeking to restore peace in the country, the government has achieved much with the reconstruction and development of the socio-economic sectors of the war affected areas. The government had given significant consideration to implement the physical reconstruction work within the first five years of the post-war period. Those physical reconstructions represented one aspect of the post-conflict peace building process, which had aimed to re-establish the quantifiable assets of the war affected areas as that would help to rebuild the shattered economy. Although, there

are some negative issues related to peace dividends, the study observed that the war affected provinces have achieved significant progress in the physical aspects of post- war reconstruction. The theory of post-conflict peacebuilding has suggested that reconstruction and development as an important task to bring back the war affected community to their normal life in the social and economic fields. This does not mean physical reconstruction of the war devastated areas only, but also addressing the root causes of the conflict.

B. Tourism

Tourism industry of Sri Lanka is a field that could have been well developed given the location and natural beauty of the country. With its beaches, waterfalls, mountains and plains, Sri Lanka has everything that a typical tourist or a traveler wants to experience. The culture and cuisine add to the factors that attract individuals towards a particular tourist destination.

Tourists were not attracted into the country due to the civil war. For thirty years, the country that could have been prosperous due to a flourishing tourism industry would not reach its expected targets with regard to tourism. Hence economy of Sri Lanka once again thrashed. However, with the end of war, Sri Lanka saw a gradual increase in the number of arrivals of tourists into the country.

Named as one of the most stunning famous tourist destinations by various tourist magazines and researchers, Sri Lanka's pride and integrity associated with its culture and wildlife within the country are significant assets when inviting foreign tourists into the country. This was not achievable prior to post-war due to the uncertainity on the safety of the visiting tourists. Even though some number of tourists did arrive, the war-torn areas were of course left untrodden. Travel + Leisure, an American magazine named Sri Lanka as the best island for travel in its 'The 15 Best Islands in the World'. Also, Lonely Planet ranked Sri Lanka number one as the best travel destination in the world for the year 2019; a decade after the end of the civil war. Yet, Sri Lanka was not even included in the list 'Best in Travel' 2020 as an after effect of the Easter Sunday attacks. This goes to show the clear impact of terrorism and violence within a country on its tourism industry.

The table below shows the numbers of tourist arrival into the country during and after the height of war. The number of tourists that visited the country in 2018, is more than five times of them that visited in 2008. This is evidence to show that the tourist industry was heavily affected by war. Also, a clear variation between the incomes brought into the country can be witnessed with a significant increase in numbers after the war period. The tourism promotion program 'Wonder of Asia' that was conducted immediately after the end of war was able to attract many tourists to the country.

Table 1: Sri Lanka Tourist Arrivals / Revenue

Year	Arrived tourists	Total revenue/ USD. Mn
2007	494,008	385
2008	438,475	342
2009	447,890	350
2010	654,476	575
2011	855,975	830
2012	1,005,605	1,039
2013	1,274,593	1,715
2014	1,527,153	2,431
2015	1,798,380	2,981
2016	2,050,832	3,519
2017	2,116,407	3,925
2018	2,333,796	4,381

Source: Central Bank of Sri Lanka

According to statistics from the Central Bank of Sri Lanka, employment in the tourism industry of the country has increased from 124,970 in 2009 to 388,487 in 2018. As the increase was roughly three-fold, it can be concluded that war limits opportunities for the tourism industry to grow and develop. Many businesses of different scales have been formed around the popular tourist destinations of the country supporting the renowned tourism industry.

C. Agriculture and industries

Farming of crops like paddy was halted in the Northern and Eastern regions of the country due to the conflict. The people in war zone had to face various difficulties such as landmines that limited the amount of work that they could do within their premises. The landmines had to be manually removed by the army of Sri Lanka several years into post-war. With the encouragement of the government through credit grants for paddy cultivation that amounted to Rs 1,918 Mn in 2009 and Rs 5,582 Mn in 2015 and taking climate into consideration, more land was harvested from 943,000 Ha in 2009 and 1,211,000 Ha in 2015.

There has been a gradual increase in the contribution of revenue from agriculture and industries in the Northern and Eastern regions to the Gross Domestic Product (GDP) of the country after war. This goes to show the limitations to opportunities associated with advancement of these industries with war and violence.

Table 2: Provincial GDP by agricultural and industrial origin 2009-2013 (Rs. Mn)

Province/ Year	Agriculture (Rs. Mn)	Industry (Rs. Mn)	Service (Rs. Mn)
Northern			
2009	28,852	14,534	112.711
2010	30,970	28,836	129,933
2011	58,423	42,275	136,814
2012	59,911	49,664	168,450
2013	66,630	68,176	176,736
Eastern			
2009	63,879	93,667	121,817
2010	73,959	98,357	161,652
2011	61,059	109,111	209,113
2012	85,452	150,339	242,610
2013	92,840	181,383	268,676

Source: Central Bank of Sri Lanka

D. External trade

In the last decade, foreign investors have shown a significant interest in investing in the country's infrastructure and industries. The uncertainity of investment returns that existed due to the economic situation of the country due to war contributed to the low interest in investment within the country. Thus, the flow of foreign money into the country was obstructed.

The rate of imports on consumer basis was also increased parallel to the introduction of various new goods to the Northern and Southern regions. The capita allocated for imported investment goods ranged from Rs 240,284 Mn in 2009 to 760,942 Mn in 2018. Accordingly, international trade brought revenue into the country after war as well.

E. Unemployment

Moving along, increase in the level of unemployment can be seen as another adverse economic influence of the long-drawn-out ethnic conflict in Sri Lanka. Conflict turned into a courteous war among the Lankans, the on-going period and post war period had heavy impacts on various aspects of the economy of Sri Lanka. According to various sources, the financial breakdown that occurred within Sri Lanka had economically impacted throughout certain parts of Asia; South-Asia specifically. Post-war recovering and reformation of the economy and the country as a whole is more than hard. It has been over ten years since the end of war, but the country is still recovering from the damages caused by the crisis. In the North there still are places where not only infrastructure, but also employment of people who wish to be employed could be handled better. Reinforcement of self-employment can be considered as one methodology that could increase the contribution of Northern citizens in the country's economy.

Level of unemployment among the youth increased during the war. This can be regarded as a impending threat to the development and stability of the country as the unemployment of youth is considered as the root cause of many other internal problems of the island. It is a known fact how young and innocent Tamil boy in the North were victims of the Tamil tigers. Children were taken away from their families at a very young age and snatched away their right for education, right for protection and right for safety. By the time the war ended these children had not gotten proper education to get into appropriate jobs and therefore, most of them fell in the wrong paths. Government made sure almost each and every one of these children were taken care of but there were some children falling off the accurate tracks.

Today we see many young men wasting their time and energy either engaged in dealing drugs or not getting the maximum benefit out of their skills and abilities. It is only through the active commitment of Sri Lankan youth this threat can be eliminated. Rousing and encouraging youth into engagement of some work at least through local officials is one out the many strategies available to minimize the risk. Expansion of the construction industry with the development of infrastructure laid a foundation of job opportunities for locals has been advantageous in terms of family units. Also, tourism and the industries that were built with the foreign investments contributed to the decrease of unemployment. Below depicted data shows the level of decline in the level of unemployment respectively.

a) Data excluded both Northern and Eastern provinces.
b) Including Eastern province but excluding Northern province.
c) All districts included.

Table 3: Level of unemployment

Year	Total unemployment (%)
2007 (a)	6.0/ 6.0
2008 (a)	5.2
2009 (a)/(b)	5.7/ 5.8
2010 (b)	4.9
2011 (b)/(c)	4.2/ 4.2
2012 (c)	4.0

Source; Created By author

Moreover, it has been observed that the GDP at constant prices rapidly increased by roughly two and a half fold in the year following the cessation of war. The GDP that amounted to Rs 2,449 Mn in 2009 and Rs 2,645 Mn in 2010 increased to Rs 6,413 Mn in 2011 visibly indicating the effect that war had on the country's economy.

Conclusion

Using violence to obtain one's requirements was once a practice of the LTTE in Sri Lanka. It has become a major trend in the modern world even today. In this context, war is inevitable and so is avoiding risks of putting a country into situations of war but as a society one could always contribute to minimize those risks. May it be cold war, hot war, just war or psychological war at the current status of the world with all the availability of resources one could always use the power vested upon them to direct the governance of our country in the right direction. War is something that the human race has gotten used to and expects to last for years to come. When seeing from an outsider's perspective, one could argue that war is not the answer to an unsolved dispute. Although this is true, the power of violence should not be underestimated. When one violates the rights of thousands of civilians, the best way to respond to them is using counter measurements of the same caliber. One cannot spread kindness in a situation where the lives and lifestyles of many more individuals get involved, involuntarily and their rights as humans used in something that they do not wish to be part of. War is a trauma that no one ever wants to go back to.

Sri Lankans who faced major consequences as a result of a thirty-year war certainly do not wish to put their country in such a position. Generations of the nations' people fell into nadir because of war. The economy could not be brought upto the expectations of the previous leaders. The mutual relationships among individuals were damage to the extent where some misunderstandings exist to this day. Basically, Sri Lanka is a developing country for several decades and one reason that contributed to its lack in progress is the alleged war.

This situation is the same in any country or region that undergoes war. Be it cold or hot, war destructs and diminishes not only infrastructure, but also humanistic values as a whole. In this world where human rights are profoundly focused on and debated, war has the ability to question whether any of these rights are safeguarded. Even though there might be a thousand explanations for war, the ones that have lived through war at no time will see a justification to war.

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ID 691

Corruption Circle of Sri Lanka: The Second Largest Enemy to the State

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Abstract - A set of fundamental principles and core values are required to govern any state. However, the deep-seated causes and effects of corruption in a system kill people's satisfaction. Notwithstanding, the stagnation or half-measures of countering misappropriation and misuse of power can be considered as impediments to eliminate corruption. Corruption is disintegrative and the democracy is more likely to struggle for survival. The corruption level of Sri Lanka has become the second largest enemy to the state actually before, during and after the violent conflict. Consequently, it is evident that the viciousness of corruption circle victimises the state and people over the decades. Eventually, the principles and values become trivial due to disparities caused by dishonesty in the public sector. In this regard, the main objective of this paper is to come across the causes of corruption that make states less able. A holistic analysis has been used in this paper to analyse both primary and secondary data. To this end, this paper also shows the deep-rooted viciousness in the public sector.

Keywords: *Alienation, Corruption, Democracies*

Introduction

Historically, Sri Lanka is characterized with its diverse nature of human settlement. It has also evolved from threats and challenges. Present polity has been witnessing a rebirth of the island from various circumstances such as freedom fight, ethnic conflict and terrorism, constitutional reform, etc. and evolved as a lower-middle-income country. It had also graduated to an upper-middle income country in 2019. The representative democracy hanging on taxes has not found a meaningful relief from the pain of corruption that is parasitical in the public sector.

Even though the state could bring an end to terrorism, the fight against corruption remains stagnant: the viciousness has turned to be the second largest enemy to the state now. But, even so it has also a serious national security concern.

The great scholars of corruption address it (corruption) more broadly (Heymann 1996 p 324) because of its causes and endless burden to the state. The parasitism of corruption is, in a broader sense and in real terms, significantly connected with the status quo of the country too. It has increased public debt gradually and dramatically. It also allows a sub-culture and a sub-rule within society and institutions respectively by reason of increase in the trend of kickback and so caused injustice and disparities. Further, the plausibility of an argument as to the correlation between devolution and national integration seems to be real whenever the viciousness is reported from the top at provincial level. Land corruption or similar allegation that led deforestation and environmental impact has also disturbed ethnic harmony despite the loss of revenue. Country's progress of reconciliation might shift in a sluggish manner when the facts above make the state less able—the process to bring about national integration is heavily challenged due to corruption. Furthermore, combating corruption has also been a costly work and it may reap so less like government projects that have met loss even before commencement–it is not a shock to the system.

A question gives food for thought that is corruption an issue to Sri Lanka since it is a democracy. It may not be just because of being a democracy, but it is one of many. It becomes evident that a few successive governments of it are striving between increase in public debt and decrease of expenditure from the top. Precisely, corruption is a problem but may not be only this. As long as the system of taxation which allows the government to provide services, the state as a whole is determined to get rid of corruption to

take effect of the welfare. Heymann (1996 p 329) further indicates that every nation is unique in its particular forms of corruption and in the institutions and powers it has available for dealing with them. This study argues that corruption is, for Sri Lanka, not merely a problem as such, any reform of legal procedure to be dealt with before making progress but also a hurdle that is of concern to be continued to address and combat while progressing. Further, this exploration will reveal our own uniqueness to fight back the common enemy to the state.

Methodology

This study is a vivid reflection of a more qualitative approach, and the analyses emanate from reports of the National Audit Office during 2016, 2017 and 2018 in particular. All the instances and numerical data mentioned with this study precisely replicates above reports. Some secondary sources also bolster empirical study of the status quo. They back the analyses and well interconnect the causes and effects of corruption broadly. This paper carries recommendations and suggestions towards a break in the continuity of corruption circle and for the way forward.

Results

Corruption has not just declined services but increased expenditure. It makes the state less able and vulnerable to its all sorts of challenges, and it becomes victim of its own progress by reason of vicious trends of recruitment, procurement, payment, projects, etc. A prerequisite is here to come across the nature before responding or even to present the result, the uniqueness of corruption at home. There is no escaping the fact that either the policymakers or anyone cannot take a blind bit of notice of what the viciousness of corruption circle is all about beyond a shadow of a doubt. The circle is best broken into five different and also interconnected segments. Although the result derives from the context of Sri Lanka, this classification seemingly generalizes occurrences out too.
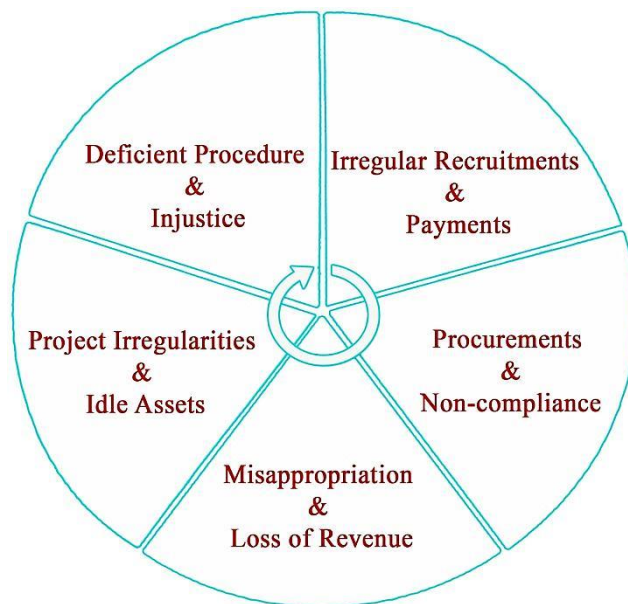

Figure 1: The five segments of viciousness of corruption circle

The varying segments are unique in analysis and the manner of occurrence but interrelated in terms of causes and results. Replicated every angle of the public sector it has qualitatively provided solid grounding below.

A. Irregular Recruitments and Payments: how do we select, appoint and pay persons?
Although all five segments go to prove varying instances of misappropriation, dishonesty, etc. in the public sector, the first, Irregular Recruitments and Payments presents more as to how public officials are recruited and paid in corruption angle. Firstly, the fact with regard to recruitment, everyone, by common consent, knows better that prior approval and process in compliance with conditions and regulations are mandatory. On the contrary, the process and the regulation have been neglected and violated. Secondly and more importantly, when handling public fund, salaries, allowances, incentives and all other pays for the officials had not been approved relevantly. Institutions have failed to ensure the aforementioned conditions and accepted values that should strictly be followed to avoid double payments, improper and ineligible allowances, unapproved incentives, irregular transaction, misappropriation of salaries, higher salary than that of approved (over-payment), salaries for released or vacated officials, unauthorized payment, delaying compensation and non-payment, etc. In addition, even the PAYE Tax had not been deducted and remitted regularly. Certain type of over-payment and unentitled allowances are likely to deliberately and directly exploit the

people. Finally, the objective to establish justice in recruiting and paying is defeated. This introductory attention permits a notion of what actualities are in the public sector.

B. Procurements and Non-compliance: how and for what do we spend?

To know full well, anyone is supposed to have a brief overview of public procurement better. It has turned to be a loss-making in corruption-prone area at present. Although the Government Procurement Guidelines control procurement activities of buying goods, services and works, irregularities before and after procurement tend to think that such guidelines are just optional and not mandatory ones: ignorance of procurement process, non-consideration of criteria when selecting the supplier or contractor, procurement without studying the substance and identifying the requirement, not entering into written agreement, violation of agreement and failure to mention conditions therein, procurement in violation to the Act and at varying prices during the same period, additional expenditure, over-payment, failure of Technical Evaluation Committee (TEC), non-abiding recommendations of TEC and District Price Committee, irregularities in chairing Procurement Committee (PC), indirect payment method to conceal transaction, payment for work not done, purchasing expired, quality failed and substandard items and weak distribution, purchasing in excess and for non-requirement and disposal, etc.

C. Misappropriation and Loss of Revenue: how and to what extent has the state lost its fund and revenue?

UNODC (2019) describes misappropriation that these are more common phenomenon. Nevertheless, it is more and more intentional and deliberate not just accidental–we couldn't agree more. The biggest tragedy to a state as well as to the government is that it further deepens the viciousness that is beyond description. Although misappropriation and loss of state fund and revenue can be separately identified, there are parallels obviously between the two in terms of its endurance and the detriment. It varies one another due to the way in which it was appropriated or lost and based on the amount or extent, the consequences of violation, etc. A categorical statement is that misappropriation of public fund occurs almost in all types of institutions at national, provincial and local levels and such instances of unlawful gain are two types;

1. Individual gain and;

2. Group gain

The worrying trend in the public sector is in rise: using forged document and signature, false name, fake chart and bill, etc. are for some individual gain. Misplacement of money, files, ledger, registry or non-maintenance of such documents is the general trend of fraudulent instances that occur for group gain. Nevertheless, financial or cash fraud has happened for both. In terms of project, payment for non-performed activities falls under both levels, but depending on whether it is intentional or erroneous. Misappropriation of monetary provisions of thousands of million had also occurred due to group gain but for individual's gain, and the ability of the state to serve the people on equal terms is compromised temporarily or permanently. With regard to annual loss of revenue, there is nothing to be all felt alien about it–it has been analyzed under next segment, discussion in depth.

D. Project Irregularities and Idle Assets: how do we implement projects and to what extent do we utilize assets?

This segment identifies abandoned, incomplete and discontinued projects, idle assets, and it reasons the fact behind them. It also reveals loss such as over-payments, doubled expenses, irregularities in distribution by reason of avoiding approval, lack of feasibility study, saving provisions, etc. In the final analysis, much of the projects and assets end up as non-achievement of objectives, and the sum paid by or to be paid through taxpayers' money or further taxation becomes burden to the state. As a whole project irregularities correlate with rise in public debt.

E. Deficient Procedure and Injustice: how efficiently do we handle public fund and state wealth and act in justice?

The deficiency in procedure has been caused not because of lacking procedure but mostly by bypassing. Injustice is consequent to the dishonesty. The final segment recalls the instances, which are to be analyzed under varying segments, connects with the causes and becomes evident that how efficient we are in serving the public and handling state fund and wealth. Further, this segment finds the causes as part of viciousness of corruption by reason of the dishonesty permitting unlawful gain. It examines the unacceptable actions of officials and the manner in which institutions discharges duties that causes injustice.

Discussion

This section bolsters the results of the study with precise instances shown in the reports of the National Audit Office, whereas the theoretical framework is less prioritized for a good purpose of considering more on practice. Even though theories such as Principal-agent theory, Game theory, Demand theory, etc. attempt to explain corruption, they hardly replicate the fact about the rout and unique characteristics of countries in terms of corruption. Unique studies considering the state of countries, entity, etc. have, in general or in particular, addressed the viciousness of corruption at varying pattern except a few narrow escapes. The analyses of practices in our own case are specifically discussed here;

Disregarding approvals prefers unqualified person, contractor or supplier and permits irregular payments that are more widespread at national level. In terms of recruitment, this deliberate action allows unqualified person in and causes injustice to or keeps aside the qualified (e.g. recruitment of a Deputy General Manager-Operations, at the Ceylon Fishery and Harbours Corporation in 2016), and it is also costly in terms of paying additionally to sort the inability of the unqualified. Based on the form of irregularity, the waves of irregular payment spread, i.e. higher and additional salaries had been paid to officials by the corporation in 2017. The most used term "personal gain" in general studies of corruption shifts to group gain here, but it has certainly not limited to recruitment and payments. Appointments so made in a foreign soil could be more costly in terms of both expenses and loss. As the National Audit Office (2017) indicates, the Sri Lanka Tourism Promotion Bureau had met an uneconomical expense of Rs.179.44 million in 2017 following a set of appointments in the United Kingdom without the approval of the management.

Further it indicates that, by 2017, the land for soil mining had been identified at the own discretion of the Division Manager of a zone in the South but not as per the internal instructions. An area of 20 acres had been mined illegally in 2 locations that come under Mahaweli Land. Neither an initial environmental report nor an environmental impact analysis had been obtained. Furthermore, the space for public opinion has been denied. Similarly, higher officials appoint persons, and they are not appointed by the relevant state body, e.g. (reinstatement of) a teacher by the Secretary

to the Provincial Ministry of Education, Northern Province in 2014 and 02 posts of labourer Grade II by the Secretary to a Provincial Ministry, Sabaragamuwa Province in 2014. Furthering recruitment, at the National Savings Bank, Staff Assistants (around 2,066) and Office Assistants (around 563) had been recruited irregularly and unjustly.

In terms of recruitment in excess, 16 permanent appointments for 05 unapproved posts have also been made by the North Western Provincial Human Resource Development Authority since 2014. Even after following the procedure, lower qualified person is also appointed, e.g. a Director General at the National Institute of Business Management in 2017. Similar acts paves ways to mischief-making in no uncertain terms, e.g. 06 Advisors to the Chief Minister, Uva Province (2017). Without the approval of the Department of Management Service (DMS), appointment for 12 foreign-funded projects implemented by the Ministry of Highways had also been made in 2016 while the Ministry of Health had granted permanent appointments of 120 project employees in 2018 despite the impossibility in accordance with DMS Circular or under Public Administrative Circular.

There had been instances of holding salary or pension during the investigation of the Commission to Investigate Allegations against Bribery or Corruption (CIABOC) against the person who had been recruited in the same manner though. Above all, the instances of recruitment in excess have turned to be a common issue in the public sector. It causes the taxpayers shoulder the burden of state welfare in case these employers run on loss. E.g. 190 persons at the Ceylon Fisheries Harbours Corporation as at 30 June 2016 and not less than 20 persons at the Sri Lanka Ayurvedic Drugs Cooperation by 2017 had been appointed in excess to the approved cadre.

Irregular payments are legitimized more and more as longer as the institutions continue to ignore to obtain the relevant approval and fail to recover what they have already paid the same. Number of institutions such as the Sri Lanka Ayurvedic Drugs Corporation (Rs.307.79 million from 2012 to 2017), Ceylon Electricity Board (Rs.1,930 million as Miscellaneous Allowance to staffs in 2017), Water Resource Board (Rs.8.4 million on the recommendation of the Secretary to the Ministry of Irrigation from 2014 to 2017) and

the Bureau of Foreign Employment (Rs. 83.17 million and Rs.86.40 million in 2017 and 2018 respectively) had paid to staffs partly or entirely ignoring prior approval(s). This condition has continued to exist the same and badly takes root: the CEB had paid various allowances amounting to Rs.1,873 million to the staffs in the following year right in the same manner. Sad to say, the approvals had not been obtained for years even after paying. Further, there has been a conflict of interest by reason of special pay according to Cabinet decision for one of the above institutions. Maybe it might spill or spread to another institution in a different wave consequent to the selective pay amidst poor pay co-exists in the public sector. The more the institutions ignored obtaining prior approval, the more irregular payments they have made.

A spill-over of additional expenses by PAYE Tax is taking root. Institutions additionally incur and meet loss of its fund that should go as revenue to the state but not to any individual, i.e. using the fund to pay PAYE Tax. Unlike any non-state actor, the CEB had additionally incurred Rs.4,210 million by 2018 for paying PAYE Tax for its employees since 2010. Maybe the selective approvals for special allowances within certain institutions would have fuelled the dishonesty. Nevertheless, the CEB is witnessing a spillover of the irregularity of payment. The Regional Development Bank, the Housing Development Finance Corporation Bank and the Pradeshiya Sanwardana Bank have incurred the same, but not in the distant past. This practice, which violates the Inland Revenue Act no.10 of 2006, should not spread like wildfire further or maybe in a varying form–there is an alarming rise. A disorder and lawlessness emanate from arbitrary and selective pays.

A knock-on-effect on government expenditure has been observed. Amidst the injustice caused by delaying payment and non-payment, the delay to commence or complete project activities leads to grossly varying effect to development and causes loss to the state variously. As one of the effects, the project is discontinued, e.g. the reconstruction of Gatambe Water Treatment Plant under Strategic Cities Development Project for Kandy (the lending agency cancelled the financial assistance) and halted, e.g. Dry Zone Water Treatment and Sanitation Project (after cancellation of foreign aid). The delay makes the project costly, and it further proves a knock-on-effect on government

expenditure, e.g. Rs.43.4 million had to be paid for staffs from the General Treasury for the Kottawa, Kaduwala and Kadawatha (3K) Township Development Project due to delay and progress in sluggish manner, and an overhead expenses of Rs.151 million had occurred for maintaining the office for the Greater Dambulla Water Supply Project due to the extension.

As worst case scenario in road development, a sum of Rs.476 million from Programme-I and Rs.31 million from Programme-II had to be paid to Asian Development Bank due to not utilizing the disbursement of the loan timely by 2018 while a sum of Rs.68.53 million had been recovered from the loan disbursed by a lending agency up to 31 Dec 2018 for the delay in completion of 35 new bridges. By 2018, the CEB had to pay a sum of Rs.42 million for delayed foreign funded projects that were not implemented as planned. The Industrial Technology Institute had sustained a loss of Rs.13.28 million payables to the European Union due to non-implementation of the project in terms of the agreement. The loss caused by delay in implementation trivializes the whole project and the lending agencies generally tend to pay a lip service for efficient development. The Construction of Matara Beliatta and Kataragama New Railway Line is a prime instance to bolster the argument. A sum of Rs.737.6 million of foreign exchange loss had occurred since the foreign bank delayed payment to the contractual company for 2 and half years.

More viciously, non-implementation of project also causes loss to the state due to non-commencement. But the loss depends on the means of project even though it may not be a dead loss whatsoever. E.g. in 2014 and 2015, payment of mobilization advance totaling to Rs. 4,011.05 million to a foreign company for implementation of the Gin-Nilwala Diversion Project that delayed commencement for years.

In terms of Payment, instances prove double negative situations in the public sector: neither the payees are legible to be paid nor the pays are approved. E.g. Rs. 15,000 monthly allowance by the Provincial Road Development Authority, Southern Province in 2015 and 2016 even though they don't belong to Sri Lanka Engineer Services; monthly allowances for 04 Staff grade Officers considering them as coaches in 2017 from the National Sports Fund and; commercial allowances for the days for which the holiday pay paid by the

Department of Government Printers in 2017 and 2018.

Based on the instances of irregular payment shown in the audit reports it is easy to understand 4 different trends further: (1) misappropriation of salaries due to non-maintenance of data, register and such and such, e.g. Anuradhapura Municipal Council (2018); (2) paying salaries for released or transferred officers, e.g. Department of Engineering, North-Central Province and (3) and for those who have vacated the service, e.g. (amongst many) Ceylon Fisheries Harbour Corporation and; (4) double payment of salary, e.g. to an officer by the Southern Provincial Governor's Secretariat and the National Museum Department during 2014 to 2015.

Non-recovery of trade debt, loan, credit, stamp duty, lease income for leased land (inter alia) for mining, quarrying, and plantation, arrears of penalties, tax, court fines, fine for breaching bond by officials, loss due to non-compliance with agreement, payment for no-pay leaves, etc. boil down to the causes of corruption–deficiency of procedure. The category of loss of revenue can be broken into two types analytically:

1. Short-term loss and;
2. Long-term loss

Sometimes both fall under the levels of individual gain and group gain. Furthermore, the short-term loss is temporary and the other may cause permanent loss. As short-term loss, there are non-settlement of advances, non-remittance of revenue and fund to the government account, etc. As long-term and permanent loss, financial loss caused by state investment, loss as a result of delay to impose duty, revise taxes, rent and pass statutes (at provincial level) loss of moveable and immoveable properties, commitment charges, foreign exchange loss (due to delaying or non-implementation of projects contrary to the loan agreement), operating loss of profit making bodies, incurring revenue without remitting, loss of income due to failed trade, loss caused to the government by guaranteeing for loan, etc. are paramount description in short. However, both types of losses may be changeable but not often: loss that was temporary once has become permanent and long-term loss due to failure of the institution and intractability.

Yet, permanent losses are diverse. E.g. a penalty of Rs.11 million by the International Rugby Committee on the Sri Lanka Rugby Union in 2016 by reason of allowing a foreigner irregularly to the national team. In terms of procurement, the state had lost a sum of Rs.519 million at the time of purchasing fertilizer for the agricultural sector due to over-payment for importing Urea *Granular* on the same price of *Field* in 2017. Similar to previous instances, a sum of Rs.28 million had to be paid as commitment charges during the Construction of Moragolla Hydro Power Project of MW 31. At local and provincial levels, over-expenses while purchasing gravel by the Nattandiya Pradeshiya Sabha in 2016 and financial loss by procurement of ABC gravel by the Southern Provincial Road Development Authority in 2017 had occurred.

Certain Cabinet Decisions have caused similar losses: The Sri Lanka Customs had to pay an additional amount of USD 1,075,200 for stickers procured in 2017 due to the Cabinet decision to reject a quotation with lesser price of the same supplier. At another instance, the Cabinet decision had caused a loss to the Company Fund by investing on a bankrupted company in 2017.

There is a huge vacuum in revenue collection and contradiction between institutions. The state had lost a sum of Rs.1,117.50 million of revenue to be collected from the granite miner of 49 quarries by Mahaweli Authority, Hambantota by 2018 and Rs.1,891.91 million during the Moragahakanda project. The contradiction is that the Mahaweli Authority had recovered charges only for 150,837 cubes whereas the Bureau of Geological Survey and Mining had collected charges for 1,266,991 cubes during the period 2010 to 2018.

The following figure 2 further summarises the discussion and casts light on the viciousness of corruption that makes the state less able towards a total failure eventually.
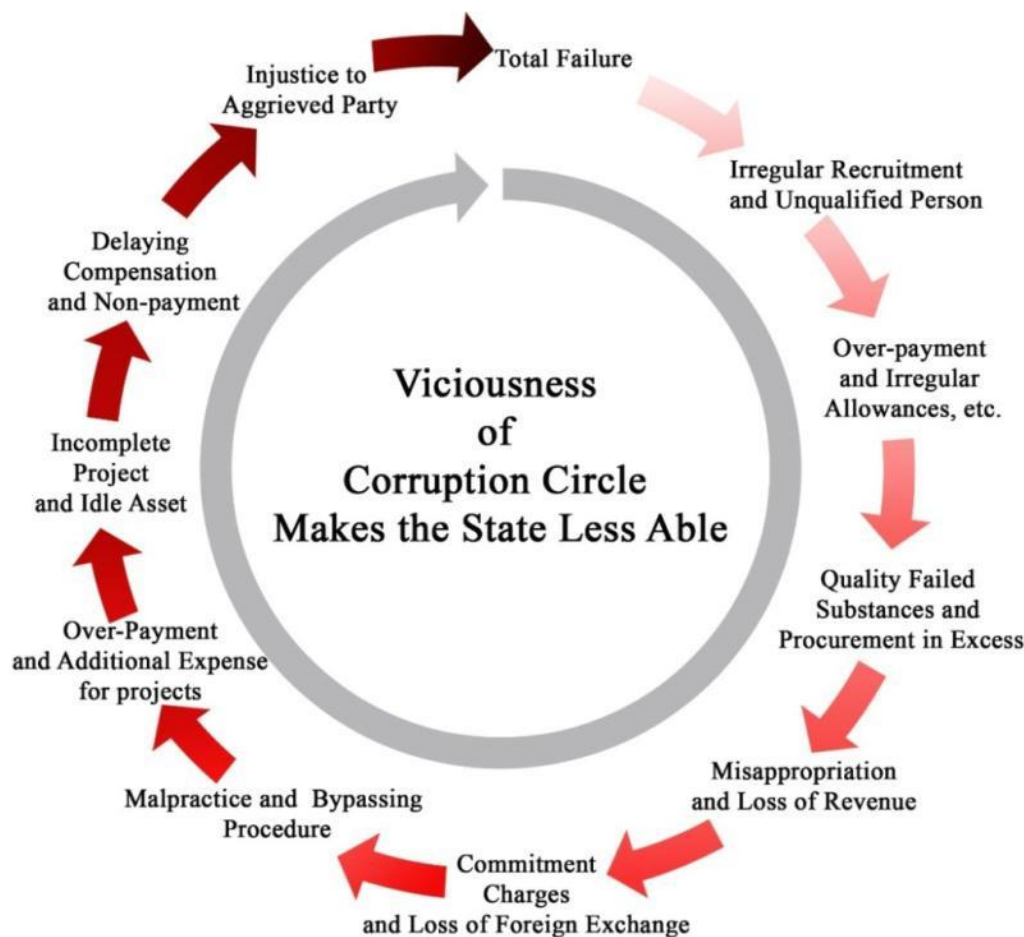
Figure 2. The Viciousness of Corruption circle makes the state less able

Savings have caused loss and denial of service. Although a large amount of tax becomes sinking fund nationally, most of the provincial councils save annual allocation. Even though they save up it still causes loss to the state. The Central Province had invested a sum of Rs.1,782.40 million in fixed deposits which was allocated for serving the public in 2017 while the state had to bear additional cost since the government had granted the sum by obtaining as overdraft facility at an interest rate of 27%. The SLBC had deposited a sum of Rs.122 million out of Rs.171million received from the Ministry of National Integration and Reconciliation for the launch of *Sanhindiyawa* (Reconciliation) Channel as a fixed deposit. A few instances witness of savings at interest-free bank accounts too. There is no denying that the people had been deprived of service, and it is a policy without plan and implementation without monitoring and evaluation–end of story.

The continuity of non-payment or delaying the pay may provoke a sense of injustice that could also induce the practice of kickbacks. We may wonder that these instances are directly not connected with corruption seemingly. Yet, it is unjust due the dishonesty or deficiency in procedure. A sum released by the Office of the Commissioner for Workmen's Compensation for the beneficiaries had been delayed for 1-25 years. The volume becomes huge when referring it to the Department of Labour where a large sum that was recovered by the department since 2011 by filling cases had been deposited in the general bank account without being settled. There had been some inactive funds, e.g. the Migrant Workers' Contributory Fund, the National Child Development Fund, etc. It further reflects the stagnation of free-flowing function of policies between formulation and implementation.

The Foreign Employment Bureau had earned by depositing a sum including Rs.251.45 million which should be paid to the Sri Lankans who had employed in Kuwait during the Gulf War. With delaying payment and non-payment, there is always an alarming situation of bribery. Yet, it can be caused due to inefficient procedure or performance arguably, but the delay resultant to the error precisely makes the beneficiaries fall prey to the act of non-payment, e.g. a sum of Rs.57.37 million for 6,461 farmers, which was

credited by the Agricultural and Agrarian Insurance Board, had been rejected the by the bank due to errors in names and NIC numbers and had remained unsolved. Not only whenever the pays are delayed but also when dishonestly Furthering malpractices and bypassing procedures, this study argues that it causes not only loss of revenue to the state but also detrimental more than the corruption concern: it has a serious national security concern. In 2017, 2,268 containers have been released on personal securities without inspection by the Sri Lanka Customs even though there are cases of importation of illegal drugs, committing tax frauds, etc. Amidst the threat to the functions relating to controlling explosives 35 metal quarries had been identified to be running without license particularly in the Districts of Kurunegala and Anuradhapura in the same year.

Projects up to thousands of million but without study had remained incomplete, inoperative and discontinued. The results are illustrative of lacking pre-studies. It is but one of the facts for the reasons for the failure among many, but instances begs the question how the institutions can neglect the studies before the projects that go up to thousands of million. It is hardly necessary to take the long view, but it rather causes burden to the state in the short run. Nevertheless, at certain instances, such study or report had just come to nothing. According to the National Audit Office (2017), a report had been prepared without conducting an investigation on environmental impact by the consultants for the reconstruction of Galle Fort Rampart. There had been other reasons for the irregularity, but not within reason. Furthermore, out of 21 contracts costing Rs.337.53 million, which had been awarded by the Central Province to one contractor during 2016 and 2017, 13 projects, had been in a position of cancellation while 07 remained weak. In the North Central province, 192 projects worth Rs.977 million had been abandoned by 2018. Development initiatives become backwater by reason of deficient procedure or malpractices.

delaying settling advances injustice is caused by individual, e.g. then Secretary to the Chief Minister of Eastern Province had delayed to return a sum of Rs.2 million despite elapse of 10 years.

According to the circle showing the viciousness of corruption, irregularities and failures end up with concealing information or non-presentation of data and denying physical check of audit as another irregularity. As indicated in the National Audit Office (2017 and 2018), the Ministry of Irrigation, Cricket aid (Guarantee) Limited, Sabaragamuwa Provincial Council and the Ja-Ela Pradeshiya Sabha had not presented a part of financial statement and concealed physical observation of certain assets and properties from the audit checks. It is the beginning of the end of the avenue for stern action against corruption in any case. The accessory after the fact may find a type of refuge in the above environment.

Conclusion

Revisiting the results and analyses backed by instances, this study recalls that the viciousness of the unique circle of corruption has been a parasitic on the public sector, and the parasitism makes the state less able and kills satisfaction of people with the system. Objectives of governments are defeated, and they meet drawbacks by reason of their own progress since corruption is disintegrative and detrimental to effectiveness and resilience.

Unfortunately, the unlawful gain of state fund and revenue had not decreased but has been spreading further in unique forms. The financial malpractice, which is being legitimized within a large entity disregarding the regulations and denouncement against the dishonesty, has made it difficult to break the circle but it is easy to work towards a break–there is no either-or situation. Indeed, these instances are signs for unequal application or futile implementation of policies against one and another or institution to institution. How are we going to get out of this adamant psyche neglecting the law to maintain a state of equal distribution? Are we going to sort it out in a way that is not known yet? Then, the

problem of instability may be caused due to the sudden change to the present. Or, is this the fact that we can lead a horse to water, but we cannot make him drink?

Nevertheless, in terms of combating corruption, certain states rely on the key law enforcement authority and fight through increasing public awareness. All the states believe that corruption increases the cost and makes loss: a few are far away from the stance due to an established culture and higher per capita income, but there is no escaping the fact for more. If we count on the traditional way and sluggish achievement while there is a rise of demand for reform in policing and allegation against wealthy players in the private sector, the fight against our own unique form of corruption will only be superficial. Taking all the instances and causes relating to the state of the viciousness of corruption which causes visible and invisible threat of fragility into consideration, this study lays down the recommendations that are as follows;

1. Entrenchment of a public culture that could abhor self-dealing (Haymaan 1996 p 331), kickback and all sort of personal and unlawful gain towards public-spirited citizenry: the progress will be slow but the result will be sure in the distant future. A strong personality or a leadership is a pre-requisite to preach the necessity before and while applying the tools of education and law enforcement–there is no time like the present

2. The functions of auditing and combatting corruption must become all-important pillars of governance right equal to holding free elections: the findings and results of investigation must be implemented sooner similar to the happenings and what is expected once the election results are out.

3. There shall be interdepartmental coordination legally. For instance, the complaints on misuse of public property received by the Elections Commission and the findings of annual and investigation audit reports of the Auditor General should be sent over to the CIABOC with evidence for further investigation and prosecution.

4. The institution of restriction on campaign finance Act is necessitated again and above: it could offer the utmost in prevention of political corruption and the fight against corrupt wealthy players in the private sector.

5. The officials who are not strict in following the adequate procedures amply should be punished from the top first.

6. Ensuring no one works in a vacuum the state entities combatting corruption needs to well open the door for non-profit and non-state actors to amplify the level of reach and meet the costly work of combatting corruption: the state body may request them to include identified activity specifically to their annual strategic or work plan.

In short, for the uniqueness of Sri Lanka in combatting corruption, preventive measures will distinct reactive measures while the reactive efforts need to be revitalized and reformed further. Equal application of the law avoiding self-defeating regulations and entrenchment of a public culture are the way forward in the quest between hurdle and problem of combating the corruption in Sri Lanka.

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Holistic Framework for Migrating Military Applications into Cloud Computing and Ensuring National Security and National Growth of Sri Lanka

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Abstract-The golden rule and principle in today's digital world is 'right to gather information and right to distribute it in right time'. When it comes to military related operations whether security operations in own country or ongoing abroad theatre defence operations those entities need access to the systems in time and the data requested should be on hand in an accurate and comprehensive manner. Availability of mass data is growing day by day, networking with clusters via digital networks. Parallel to that technological advances in main areas such as cybersecurity, surveillance by satellites, remote electronic sensors, and drone technology are generating huge volumes of data which are needed by all main ongoing processes of a country, and these new data create challenges for human analysts who are struggling to keep pace. It is important to point out that most military activities that use cloud computing are real-time, automated to financial management, communications and planning. By getting on the cloud, the Armed forces have a chance to do more with less and they are starting by doing what they do best being organized. the new technology and mass information have to be managed protect and process into some valuable output to obtain the best outcome of technology advancement with regard to defence related work. Specific defence agencies in Europe and USA have used advance technological enhancements to boost the information storage capacity and the data analytical processing power. In those regions, large number of investments place further strains on operations with the sufficient budget allocated under fire while defence service demands are growing. With all these aspects defence agencies have been thoughtful about cloud computing. But cloud computing could be a new challenge and differentiator in accomplishing next generation defence strategies. This technology will be easier, secure and cheaper than existing siloed systems. An improved advantage is being able to keep bound with the demands of modern defence operations since optimizing operations in defence and military related applications becomes a strategic necessity for defence agencies and authorities across the world. When designing new cloud-based infrastructure for a military application, it is important to consider the holistic approach in different dimensions like security privacy, efficiency, maintenance, cost, society, standards and ethics. This holistic cloud framework is described by hierarchically organized processes which allow for military applications, technology and social-driven security management. A Reliable holistic framework for migration will ensure mitigation of risks in cloud computing technology. This holistic framework designed by meta-synthesis method to improve the migration process a maturity model called 'Holistic Cloud Migration Framework for Armed Forces Sri Lanka' is introduced with 5 main categories combined with holistic attributes to add extra value and sustainability for the framework design.

Keywords: *Cloud Computing, Military Applications, Effectiveness, Holistic Approach*

Introduction

The holistic development of national state in all social spheres is the main guarantor of ensuring the security of society, state and individual. There is a direct influence from the national security for the economy of a country. By developing effective military infrastructure, the wellbeing of people increases with different dimensions. For an effective and efficient military infrastructure is a must for a country with this digital Era. Whatever the military systems consume by militaries should have easy access to applications with less effort, time saving and high security enriched functionalities. In this case the cloud computing play major role in next generation digital renovation in military management as well as battlefield operations. Cloud computing is a rapidly evolving type of internet- based computing model that depend on the sharing computing related resources, rather than having local servers or personnel to handle them. It has already been adopted by a significant number of Small and Medium Enterprises in Sri Lanka as a business advantage able to improve their business environment and help them be more efficient and productive.

Cloud computing is suitable way to provide on-demand network access to a shared pool of computing resources in different industries like military, health, e-commerce, educational & entertainment. This cloud service is dynamic provisioning of IT capabilities, whether hardware, software or services from a third party over a network with scale up its capabilities, achieve economies of scale, and maintain resiliency. Beside that cloud provide a delivery model with improved operational and economic flexibility and reduced the maintenance and co-worker support. There are 3 core models: public, private or hybrid. Beside that cloud offers a delivery model with increased operational and financial flexibility and reduced maintenance and support.

Microsoft Azure, Amazon Web Services (AWS) Alibaba Cloud, Google Cloud. Oracle, IBM Cloud. & SAP are the major Cloud service providers in world. Main benefit of migrating into cloud computing services is cloud avoid the cost and complexity of possessing and maintaining their own IT structure.

Cloud applications can be specifically use in a military related operations to store & process data, accessing data from any physical location, networking, processing power through to natural language processing and artificial intelligence for military operations and mainly in day to day operations, management and office applications use by military operations. Currently using web services doesn't require operator to be physically locate in office or near to the desktop computer or the hardware that using. It can be delivered via the cloud. Due to its beneficial characteristics, as flexibility of cost and scalability, cloud computing has the feasibility of potential to transform the digital techniques and contribute to the boost of economic growth in a country like Sri Lanka.

1.1 Cloud Computing Efficiency and Effectiveness in defence related applications

Recent analyses literature showing that cloud computing has significant efficiency and cost advantages; showed per-transaction releases of emission reductions averaging 95 percent for companies that shift to using the cloud. Cloud computing is significantly more energy efficient than using in-house data centres:

These administrations are undergoing competing demands: managing high-sensitivity, high-volume, high-diversity information while simultaneously release their people from the difficulties of data management to focus on core missions. In the war and peacetime, access to information must be watertight and the safety around the plans or discussions are essential. In the time of armed conflict, data becomes the blood of operations. It must flow quickly. freely ideally and securely, while recognizing a degree of managed risk may be necessary.

There are many samples of the private division using cloud in a safe way. The speedy rise of eCommerce shows that sellers and suppliers able to manage their customers' financial information strongly by applying the right supremacy, systems and processes.

Defence agencies are not ready to embrace the risks and opportunities of cloud in quite the same way. But, with man energetic and realistic approach that minimizes the threats

A mixture of digital interruption and increasing citizen expectations for faster, informed communications adds to the heaviness to change. Agencies essential to be better connected, moving beyond their separate systems to exchange data with allies and other systems across the world. Cloud is the enabler of this shift. What's more, it is a simpler, more cost effective and potentially more secure option than the systems that defense agencies currently run themselves.

On-demand self-service. A consumer can unilaterally ask for the provision of computing capabilities as needed, such as server time and network storage, automatically, without requiring human interaction, or intervention of the service provider.

1.2 Characteristics of Cloud based Applications

Broad network access and available over the network, accessed through standard mechanisms that promote use by heterogeneous thin or thick client platforms like mobile phones, tablets, laptops, and workstations.

Resource pooling. The provider's computing resources (storage, processing, memory, and network bandwidth) are shared to serve multiple customers using a multi-tenant model combined with different physical and virtual resources, dynamically assigned and reassigned according to the consumer's demand. Rapid elasticity. Capabilities can be elastically and automatically provisioned and released, to scale rapidly outward and inward commensurate with demand.

Cloud systems robotically regulator and optimize resource use by leveraging a metering capability at some level of concept suitable type of service (e.g., storage, processing, bandwidth, and active user accounts). Resource usage can be checked, controlled, and reported, providing transparency for both the provider and consumer of the utilized service.

1.3 Global trend of using Cloud Computing in military applications

There are 3 main countries currently doing their initiatives with the Cloud computing related to defense military applications. in The United States newly launched a sequence of cloud enterprises aimed at improving mission

efficiency and cybersecurity in a reengineered information infrastructure and drive to get holistic approach to achieve the wellbeing of social mental spiritual and physical wellness of their society.

United Kingdom Ministry has adopted a "cloud-first approach" beneath which consumptions through the cloud are predictable to be the first selection considered by public sector buyers of IT products and services.

The Australian Government has launched its Cloud Computing Policy in the year 2014, requiring government agencies to adopt a 'cloud first' approach where it is fit for purpose, provides adequate protection of data and delivers value for money. The Australian Cyber Security Centre also provides guidance on secure cloud computing, including a list of Certified Cloud Services.

1.4 Scope and Significance of the Study

National economy growth can be achieved by an effective and efficient government body of a country. As a main entity of Sri Lankan government, Sri Lanka Armed forces can be playing a major role in ensure national growth and security in innovative way. To provide better service by enhancing the digital infrastructure in holistic manner the ultimate results can be impact to society of Sri Lanka. Migrate to the Cloud will be a advantage as well as challenging comparing to modern world, the first approach of migration is to decide whether such migration is feasible for Sri Lanka Armed forces. The answer to this may not be a direct and straightforward one. Several factors are involved for an organisation to decide whether moving towards Cloud Computing is feasible and safe. Various decision making involves in the process of a safe migration to the Cloud. A strategic feasibility study on whether to migrate to the Cloud, and if so, how to migrate are the core and initial requirements. For this, organisations need a strategic framework to aid in decision making process for Cloud migration. Such a framework can aid in an informed, integrated and structured decision-making process for Cloud migration.

Methodology

Migration into the cloud environment is a strategic long-term decision to a organization. Therefore, authors proposing a cloud migration framework for Sri Lanka Armed forces based on meta-synthesis method. After the feasibility study when decide on whether migration to Cloud platform is an acceptable option with analysing its internal and external benefits. The framework explores the factors that Sri Lanka Armed forces must address to decide on Cloud migration. Cloud Computing has its own pros and cons. A whimsical decision to move to the Cloud may be disastrous for armed forces. This proposed holistic framework will ensures mitigate risks in the cloud computing technology.

2.1 Analyse the literature by Meta-synthesis method

The aim of this research is to practise a meta-synthesis method for analysis and synthesis of previous published studies and suggests a holistic framework for cloud migration In related to Sri Lanka Armed forces. Meta-synthesis attempts to integrate results from several different but inter-related qualitative studies. The technique has an interpretive, rather than aggregating, intent, in contrast to meta-analysis of quantitative studies. Literature on the Cloud computing, Cloud computing migration, Cloud security related papers were searched and reviewed.

For develop this holistic framework, authors reviewed 67 research papers from published journals and conference proceedings. The holistic concept extracted from these papers are classified to related sub-categories and categories. Then, planed holistic framework based on these concepts and categories is developed. It includes five main categories wngaeged with holistic attributes in a sub-category.

By providing a systematic approach for researchers, meta-synthesis method explores new and essential concepts through synthesizing qualitative research. Meta synthesis method creates a comprehensive and widespread view toward the problems in addition to promote the current knowledge. It also is a method of reinterpreting and reshaping existing qualitative findings (McClean and Shaw, 2005). A qualitative meta-synthesis is a technique that combines results from a variety of studies with a common theme. Per se, —The sample for a meta-synthesis, then, is made up of individual qualitative studies selected on the basis of their relevance to a specific research question posed by the synthesis. (Zimmer, 2006).

Data Analysis

Using Meta-synthesis analysis and Framework Design Khan and Al-Yasiri (2016) show that the lack of knowledge about cloud computing is one of the main obstacles in adoption and migration to the cloud. In a different way, some authors such as Alonso et al. (2013), Menzel and Ranjan (2012), Lewis et al. (2005), Jermyn et al. (2014) formulate the cloud migration problem using an objective function including cost, revenue, net present value, rate of investment, etc. and they finally solve it to find its optimal solution.

In early search, based on keywords we found 657 related articles. After investigating the title it is determined that most of them are related to other research fields of cloud computing and 145 articles are selected for reviewing abstract. After studying the abstracts, 63 articles are chosen for full content review. After a full review of content, 11 articles are rejected and finally 52 articles are obtained for analysis of content (see Appendix A, Table A1). The number of selected papers with separate years of publishing, relevant databases and search engines and also the process of searching and selecting appropriate articles are shown in Fig. 3, Fig.4 and Fig. 5 respectively

3.1 Meta-synthesis analysis of published migration steps to cloud services

A. Statistical Data Analysis from the Questionnaire.

Authors	Migration steps to cloud
Khan and Al-Yasiri (2016)	Cloud requirement stage (CRS) - cloud preparation stage (CPS) - cloud migration stage (CMS)
Yaghmaei and Binesh (2015)	the knowledge base about cloud - evaluating the present stage of IT (university) - experiment the cloud computing solutions - choosing the cloud computing solutions -

	implementation and management of the cloud computing solutions
Pardeshi (2014	Preparation- analysis- migration to cloud platform- concluding the cloud migration- maintenance and vendor management.
Wielki (2015)	Preliminary assessment- migration's plan creation- implementation and maintenance
Jamshidi, et al. (2013)	Migration planning- migration execution- migration evaluation.
Chauhan and Babar (2012)	Identification of requirements- identification of potential cloud hosting environments- analyzing application compatibility with potential cloud environments- identification of potential architecture solutions- evaluation of cloud platforms- evaluation of potential architecture solutions- implementation and system refactoring.
Rai et al. (2015)	Feasibility study- requirements analysis and migration planning- migration execution- testing and migration validation- monitoring and maintenance.

Figure 2. Systematic review data

3 .2 Feasibility Study and SWOT Analysis

The decision to migrate to the Cloud for an any organisation needs to be scrutinised based on several factors. These factors relate to specific organisation's mission and vision and its existing capability, the technology used, and the costs involved. When conducting a feasibility study based on the empirical findings proposed feasibility study framework design with main 5 categories.

1.   Organizational Feasibility

2.   Economic Feasibility

3.   Technical Feasibility

4.   Security feasibility

5.   Migration and adoption Feasibility

A justification of these aspects would first give a 'yes' or 'no' answer to the question via a proper feasibility study. Main categories of the feasibility frame work can be done via open end analysis like answering 'yes ' or 'no' answers to the questions under main categories. For each main category there should be subcategories and for the better understanding of real question the defence ministry can conduct a SWOT analysis under each main category.

If the outcome of feasibility study is positive from each main category only, the actual Migration Approach can be implemented with allocating budget and technical expertise. If Organisational Feasibility become negative with any field from above main field, the organisation does not require to proceed further towards exploring whether they should migrate to the Cloud.

To carry out Feasibility study based on proposed framework will help identify subcategories which falls under the main categories. Under the Organisational Feasibility of Sri Lanka army, the study should have positive answers with categories.

•   Stakeholders of Armed forces

•   Security of the existing system

•   Risk Management

•   Disaster Recovery management

•   Documenting knowledge for existing system architecture

•   Disaster Recovery.

•   Identify the skill gaps in stakeholders

•   Plan for new knowledge transfer methods

     Economic Feasibility of Sri Lanka army the study should have positive answers with below subcategories.

•   System migration cost

•   Investment cost

•   Cost benefit analysis

- Purchasing cost

- Documentation cost

- Hiring cost for knowledge expertise for trainings after migration

- Data Usage cost

Technical Feasibility of Sri Lanka army the study should have positive answers with below subcategories.

- Available Knowledge about the migration

- Technical knowledge with the stakeholders

- Available equipment

- Technical architectural diagrams

Security Feasibility of Sri Lanka army the study should have positive answers with below subcategories.

- Data security analysis

- Available laws and regulations

- Firewall and virus protection knowledge and software available

- Hardware protection methods use in armed forces

- Code of conduct ethics use in military related management disciplines

Figure 4. 1 Proposed cloud migration feasibility study framework
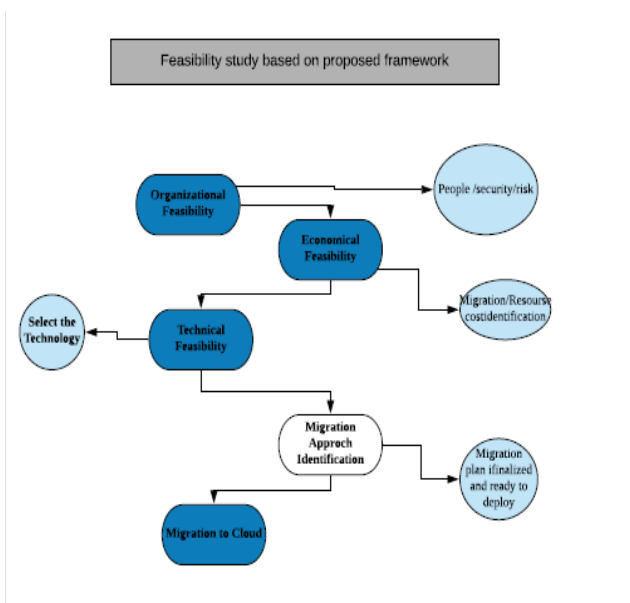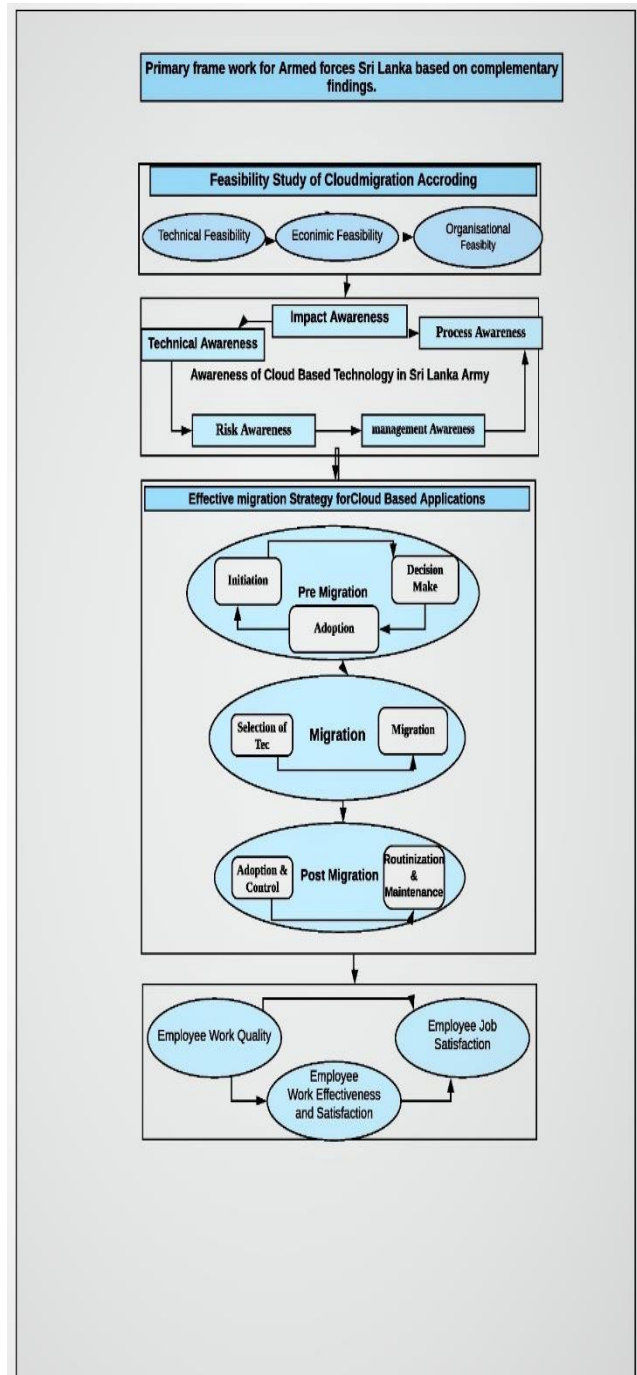
3.3 Process of holistic Clod Migration Framework development for Sri Lanka Armed forces

Next step of the positive output of the feasibility study of analysing Sri Lanka armed forces is initiate migration steps and come up with a new framework with holistic approach for cloud migration. In this situation there should be a proper framework for follow up with long term plans and strategies. This proposed framework model is designed via systematic review based on

Meta-synthesis analysis to get ready with minimum risks and come up with effective results once after the migration.

Feasibility study conduct according to the organization, economy technical feasibility is an entry requirement for this approach.

With the holistic cloud migration framework view, new technology migration starts with the awareness about the cloud technology of SL armed forces. According to the Cooper and Zmud (1990) Technical awareness, Management and economy Aspect awareness, Impact awareness, Process awareness and the risk awareness is one top layer of migration.

Effective migration approach consists of three stages called pre-migration, migration, and post-migration. Reviewing organizational failures in the implementation of applications and IT-based technologies reflects the fact that most life cycle models suffer from lack of a transparent stage of postmigration, while this stage is the longest phase of life cycle (Jasperson, Carter, & Zmud, 2005). Therefore, complete review of the migration and post-migration processes are vital in cloud-related models because the success of its implementation is based on the acceptance, routinization and infusion (i.e., maximum usage of potential) of the technology (Saga and Zmud, 1993).

Most of previous studies lack a systematic review and presentation of holistic view. Majority of Proposed approaches incorporated with heterogeneous technical-centric concept. In this new holistic framework first authors propose a primary framework. This primary framework is constructed directly based on the extracted concepts, sub-categories and categories (i.e., the result of qualitative Meta-synthesize research methodology as shown in Appendix B, Table B1). It should be noted that to avoid probable misguiding, it seems better that the readers should first consider this primary framework. Then, researches improve the primary framework based on complementary findings and add new phases (categories) to it as well as proposing the final migration framework. Finally, we clarify our proposed cloud migration maturity model for improving migration processes.

3.4 Effective Cloud migration strategy Primary framework for Armed forces Sri Lanka based on complementary findings

This primary framework is constructed directly based on the extracted concepts, sub-categories and categories which have direct impact with the main categories combined with the holistic concept with the physical, emotional, social and spiritual pillars with the adoption of new technology in middle. Influence of the new technology to increase national growth as well as the effectiveness of work force of armed forces diagrammed based on systematic review in the final proposed framework.

This primary framework is constructed directly based on the extracted concepts, sub-categories and categories It should be noted that to avoid probable misguiding, it seems better that the readers should first consider this primary framework. Then, we improve the primary framework based on complementary findings and add new phases (categories) to it as well as proposing the final migration framework. Finally, we clarify our proposed cloud migration maturity model for improving migration processes. the following preliminary framework is recommended for stepwise migration to cloud computing environment. The mentioned framework consists of six main phases (categories) including initiation, adoption, decision-making and selection, migration, adaptation and control, routinization and maintenance stages and thirteen sub-phases.

3.4.1 Initiation phase of cloud migration framework

Cooper and Zmud (1990) explained the initiation phase as follow, change for the new technology will be increase by the organizational need for change in technology or technological innovation need or both of them. Organizations deal with proactive investigation of problems, opportunities and adoption of cloud solutions related to them. the main difficulties in the way of organizations' migration to cloud computing environment is the lack of awareness of top managers and decision-makers from cloud computing.

For a successful start, organizations must effectively extend their cloud knowledge (Khan

and Al-Yasiri, 2016; Yaghmaei and Binesh, 2015; Pardeshi, 2014; Alkhalil, et al., 2014). In addition, it is necessary for organizations to modify their mentality from infrastructure ownership toward the providing services. Organizations should understand legal considerations, verify standards and develop knowledge database (Alkhalil et al., 2014; Alsufyani et al., 2015; Kiadehi, 2014). They should identify the cloud environment, opportunities, risks and threats (Alkhalil et al., 2014; Khajeh- Hosseini et al., 2010a; Omerovic et al., 2013; Rockmann et al., 2014). The more accuracy in the process of acquiring knowledge leads to more effective analysis process at later phases.

3.4.2 Adoption phase of cloud migration framework

In the adoption phase, according to the opinion of Cooper and Zmud (1990) and Kwon and Zmud (1987) a logical and political bargaining in the organization leads to organizational support to implement IT applications. At this phase, the organization incline to cloud computing migration, and the decision is made to invest in the required resources. For reasonable bargaining in the organizations, separate needs and requirements should be firstly identified fully-detailed. In addition to fully understanding of applications (Menychtas et al., 2013), the requirements of stakeholders, compatibility, security (Subramanian and Seshasaayee, 2014), the potential cloud hosting environments and the proposed solutions are needed to be accurately and completely identified (Chauhan and Babar, 2012). After the identification step, preliminary strategic analysis is required to be conducted. In this step the value of cloud computing is analyzed (Kundra,2011).

After enterprise readiness identification (Khan and Al-Yasiri, 2016; Kiadehi, 2014), organizational strengths and weaknesses, opportunities and threats, in the previous step, the market landscape (Kiadehi,2014), business strategy (Alkhalil et al., 2014), technology vision, IT governance status (Khan and Al-Yasiri, 2016) and specification of governmental service should be evaluated.
Decision making phase of cloud migration framework.

At this phase, after the preliminary strategic analysis and evaluating the positivity of organization's opinion toward cloud computing migration, migration goals must be set. Then, deployment model, service model, bench points, and architecture of target should be determined (Menychtas et al., 2013; Omerovic etal., 2013; Pardeshi, 2014). It is notable that being align with the organizational goals and strategies should always be considered in setting the goals by IT managers. After goal setting, stakeholder requirements, required IT capabilities (technical, human and organizational) and outsourcing capabilities (ITO) should be analyzed (Rockmann et al., 2014). Technical and economical feasibility analysis is should be done (Alonso et al., 2013; Jamshidi et al., 2013; Johnson and Qu, 2012; Khan and Al-Yasiri, 2016; Pfitzmann and Joukov,2011), also suitability of cloud-based services should be evaluated with the potential cloud environment (Alkhalil et al., 2014; Chauhan and Babar, 2012; Garg et al., 2013). By developing the knowledge-based decision support system from the analysis, which is done in the previous step, organizations can rank services and service providers based on various criteria, including the user's previous experience and performance of the service. Organizations can choose a suitable provider for migration by selecting the appropriate platform (Garg et al., 2013; Menzel and Ranjan, 2012).

3.4.3 Migration phase

The most important action on the migration phase is developing the migration strategy. Then, to apply the developed strategy, it is better to choose a pilot project and proceed to migrate after the initial test. In this phase, it is needed to make policy and plan for cloud migration and doing the categorization and assignment of responsibilities according to that. Services, applications and data should be classified along with ones which should migrate must be selected according to various criteria (such as: high updating, high maintenance costs, low utilization rates, high cost per user and innovation of delivered service). Then, decision makers should classify selected application and services based on sensitivity of the mission (Alabbadi, 2011). Researchers suggest applying traditional system for highly sensitive application with critical missions (not to be migrated). If organizations want to use cloud solutions for mentioned services and application, it is better for them to use private cloud deployment model. Public cloud is Suitable for low sensitive applications and services.

For effective migration, interoperability strategy (Abderrahim & Choukair, 2014), multi-tenancy and elasticity strategy (Andrikopoulos et al., 2013c), outsourcing strategy (Pardeshi, 2014), exit strategy and transmission schedule (Kiadehi, 2014) should be developed along with determination of immigrant services. After migration strategy development, modernization and adaptation of the legacy applications are done (Menychtas et al., 2013) and effective contract (Khan and Al-Yasiri, 2016) is presented. To perform migration process, it is better to select a pilot project at first, and employ systems' testing, retrieval and adaptation of the architecture (Jamshidi et al., 2013) and performing extraction and migration of data, services and applications as a seamless and integrated migration (Alkhalil et al., 2014).

3.4.4 Adaptation and Control phase

The purposes of this phase are control, monitor and evaluate important issues during migration, and then adapting the various factors to reach the desired results. By controlling the application for its security, availability and performance throughout the migration process, this phase looks to ensure continuity of the application and integration of the new system with the older system (Abderrahim and Choukair, 2014; Jamshidi et al., 2013; Menychtas et al., 2013). In order to realization of technical and economical goals which are set in the adoption phase, it should be evaluated and verified during and after the migration. For improvement, adaptation activities should also be done during and after the migration, such as the acquisition of new skills depending on the needs (Kundra, 2011), review of the existing IT governance model and creation of a governance model related to organizational strategies; also all relevant policies are reviewed for ensuring effective support (Kiadehi, 2014). As Cooper and Zmud (1990) also express, in adaptation phase, organizational procedures are reviewed and developed, besides organization's members are trained toward new procedures and IT applications (Cooper and Zmud, 1990).

3.4.5 Routinization and Maintenance phase

At this phase, in addition to the creation of guidelines, activities related to support, update and vendor management are conducted. The routine budget is considered for migration. Cooper and Zmud (1990) and Kwon and Zmud (1987) define routinization phase in such a way that usage of systems and IT application are part of individual's routine behavior, normal activities and governance systems of organizations have been adjusted to respond to IT application. At this phase, in order to respond to organization's governance systems, evaluation of service
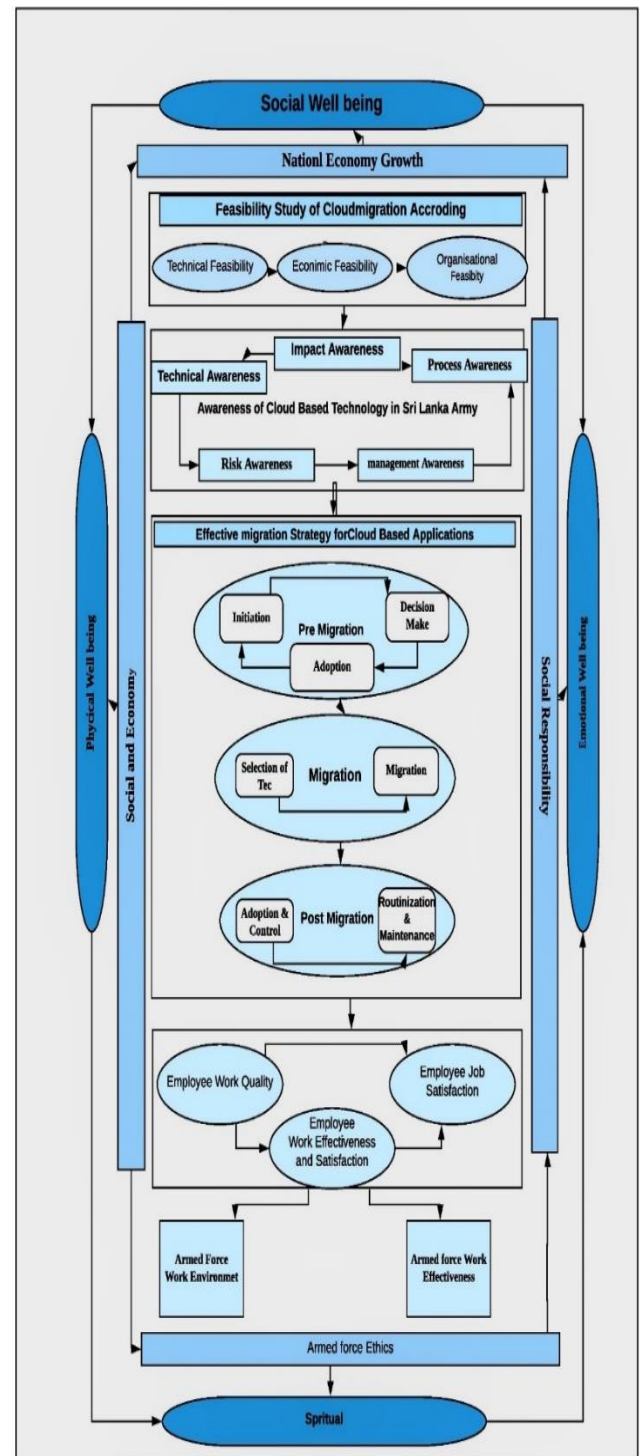

Figure 6. Quality Attributes Analysing Chart

delivery and vendor' models (Kundra, 2011) are periodically and continuously done as well as routine monitoring of quality of service (QoS) (Kundra, 2011; Pardeshi, 2014) and the way of meeting service level agreement (SLA) (Garg et al., 2014).

3.5   Holistic Cloud migration Framework for Armed forces Sri Lanka

When developing above 'Effective Cloud migration strategy Primary framework for Armed forces Sri Lanka based on complementary findings' into a Holistic Cloud migration. The new

technology should be a holistic approach which the outcome of the technique should give positive benefits in physical, emotional, social and spiritual wellbeing of the society. According to those pillars the below framework design implemented.

There for impact after the migration and during post migration has found a connection to work environment and the work flexibility of stakeholders. When considering the Sri Lanka armed forces, the militaries can access every web portal via cloud and there the stress and physical appearing in the work environment get reduce. By that the result redirect into holistic approach main pillar like increase the workability effectiveness and time saving in the work and that will redirect a person into well social and emotional satisficed workforce.

Conclusion

Sri Lanka Armed forces work force use traditional computing applications in military & management level work. Microsoft office packages, SQL Servers host in local, Gmail, Web based applications host in local servers and data storage in disks, data processing units, are the basic computing applications use in military that need additional cost of the server, hiring admins, and physical rent for the storage. Main disadvantage is the limitation to access those applications when stakeholder is away from the physical hosting premises of the hardware resources. storing your files and data with other users with often conflicting objectives. The lack of isolation of data exposes you to the risk of security and poor performance in traditional

computing. That may be decrease the productivity of the service provide by organization.

New technologies such as cloud computing play an important role in organizations flexibility and productivity and allow them to take proper steps in developing and creating competitive advantage by accessing the capabilities of additional value. In order to take advantages of cloud computing infrastructure and services, organizations need to migrate to the cloud environment. Migration to the cloud is a strategic organizational decision with complex and dynamic nature. The benefit of this research is that, for the first time, has used the qualitative meta-synthesis method to analyze and synthesize the result of previous studies whose main objective was to recommend a framework or model for cloud migration. This research has founded the concepts, subcategories and categories affecting cloud computing migration and provided a comprehensive cloud computing migration framework containing initial stages of pre-migration, migration and post-migration.

The presented framework structures various factors as well as Cloud migration approaches and combine them into a common framework for a seamless strategic decision towards Cloud migration – this is where the novelty of the proposed framework stands. The framework helps an organisation to take informed and integrated decision towards Cloud migration. The conclusion of migration of physical servers to cloud based technology is a strategic approach rather than a mere technological move.

The main and o difference lies on the economical side of armed forces budget   is   "Cloud Computing" is really an economical definition for delegating the management of your IT infrastructure to a third party ("Cloud Provider"), which buys, maintains and utilizes the resources it owns in a profitable way. Employee have access to this infrastructure through the public Internet, by means of a credit card. This is why it is "remote" where the employee stays can access to

his ccount and do the relavant work that want to finish within that day.

Further , as a country can have more advantages in working remotly via cloud based applications to gain holistic advantages as well as for the well being of the people of Sri Lanka. Our proposed framework and maturity model helps managers to gain a comprehensive overview of migration and they can perform strategic planning for its effective management. In connection with the future activities, it is suggested to use mixed method research and case studies to validate the proposed framework.

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National Security and Health: Communication in a Pandemic

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Abstract- Countries deal with more than national security to safeguard its citizens. Health problems are a crucial part of the general wellbeing of the people. As the global pandemic of 2020 showed, the population's health is an important consideration. About 32 years ago, HIV was just rearing its head and was making its way to be a pandemic, which it is today. This paper poses five research questions. How did the world governments deal with it then? How do they deal with it now? What resources have they used to combat and educate? What is the correlation between the campaigns and the incidence or reduction of HIV? What messages could other pandemic communication campaigns take from the successes and failures of HIV communication? The paper analyses the media campaigns and media messages in the 15 years between 1990 and 2005. The different cultural connotations of each chosen country would be used as a backdrop to better inform the analysis. The primary objective of the research is to determine the practical value of these advertisement and messages in combating the pandemic. This qualitative research uses a constructivist approach, and uses secondary data from statistics, research reports, and newspaper articles. The analysis will be done using theories such as stages of change model and theory of reasoned action/planned behaviour.

Keywords: *HIV, Pandemic, Health Communication*

Introduction

Across the globe, countries must ensure more than national security if it is to safeguard its citizens. The health system of a country is an integral cog in the national machinery and must be fully oiled and ready for any issue. The coronavirus pandemic and resultant lockdown showed us the importance of a well-planned and maintained health system. The country must ensure that the healthcare system is prepared for any condition, whether local or global. Without a good system, any country will find that their population will suffer, which in turn, leads to economic downturn and losses. However, pandemics are not new.

About 32 years ago, HIV began to gain ground. It quickly escalated into a global pandemic, one that has continued to have a presence in the world, affecting many millions of people. While it has some similarities to COVID-19 in how it appeared suddenly and has a starting point that we do not know enough about, it is a steady pandemic that has lasted decades. In the last 30 years, countries have struggled and also made great strides in how they face HIV. Given its long history, we have had to find innovative ways to deal with it. This paper looks at the successes and failures of the global response to HIV.

Statistics from around the world

The World Health Organization (2016) statistics point to over 36 million people infected and over 2 million new infections being reported. Sri Lanka has a <0.01% infection rate (less than 3000 persons reported to be infected although National STD/AIDS Control Programme estimates have placed it at about 6000) but many countries have large populations infected (HIV Media Guide, 2016; National STD/AIDS Control Programme, 2016; UNAIDS, 2016; UNAIDS, 2017; World Bank, 2017).

Historical Response across the Globe

In the 1980s, countries equated HIV with AIDS in their media and health campaigns. They labelled it as a deathly disease, one that kills quickly and kills anyone who contracts it, without discrimination. Simon Reynolds of Australia

created a campaign that was based on this aspect of the disease. It was hugely successful because it caused mass terror of the disease (one side effect was that it created fear of the person with HIV too). The advertisement was known as the Grim Reaper and personifies death. The advertisement shows Death in a bowling alley where humans are the pins being bowled at. There are children and older people, all being knocked down by Death, which represents HIV. We can see fear on the faces of the humans and the atmosphere of the film is foggy. There are also more Reapers bowling adjacent to the first Death. It is clear that this is death's playing field. This advertisement was one of the first to come out for HIV and appears to have set the stage for many campaigns over the next few years. While it is not the first, it was one of the first few to show this topic with such an angle. Another was a public service announcement by the UK government, which is also discussed in this paper.

The result of these types of advertisements seems to be the fear of the person with HIV. People started to shun those living with HIV and were afraid of coming into contact with them. This is still true as many people with HIV report that they are still discriminated against and shunned by others because of the fear they have of HIV (Ranmuthugala, 2014). While these first-generation advertisements and campaigns were meant to help curb the spread by educating the people about the severity of the disease, what resulted was a fear of gay men and people with HIV.

The paper addresses five main questions.

• How did the world governments deal with the pandemic in the first two decades (which approaches did they use)?

• How do they deal with it now?

• What resources have they used to combat and educate?

• What is the correlation between the campaigns and the incidence or reduction of HIV?

• What messages could other pandemic communication campaigns take from the successes and failures of HIV communication?

The research draws on findings and arguments by various other researchers such as those by Hogg and Vaughan (2005), Eagly and Chaiken (1993), and Ajzen (1988) who talk about attitudes and beliefs, and Fatusi and Jimoh (2006) who examine behavioural change. The latter attempt to understand whether health communication has a large-enough impact on behaviour, arguing that behaviour can be changed but that such impact is not as expected by governments or relevant parties. They argue that although people are given the information, they do not protect themselves (but in fact take risks). The paper is used since it talks about behaviour change, which is a central tenet of this paper. Other papers of the same calibre have also helped the direction of this paper. The paper also draws from Taggert et al (2015) who propose that social media and mobile technology (specifically cellular telephones) can be part of the global efforts at health communication. Finally, given that we live in the information era, it is also important to see if new modes of communication can be brought into showcasing the chosen messages. Thus, the paper pays special attention to social media such as social media such as email, Facebook, WhatsApp and Twitter, because these are now major tools in the arsenal of the change maker.

Methodology

This research paper identifies, analyses, and compares the media campaigns and media messages in the 15 years between 1990 and 2005. It will take into consideration the different cultural connotations of each chosen country so as to better inform the analysis. The paper will draw from the campaigns of 3 countries. These are the USA, the UK, and Australia. This selection is representative of a larger geographical area, addresses some cultural differences, draws from countries with the possibility of a large advertisement and health education budget, and

also shows some of the areas with a large population of HIV patients.

The three countries' campaigns are then compared against those from Sri Lanka, a country with a low prevalence of cases. Before doing so, the paper will analyse how the island's campaigns fared in the past 30 years and whether the country followed a similar trajectory to the other countries. The financial consideration does not take priority. The question is whether the small third-world nation has chartered another route or followed the same trajectory as the developed countries with a much smaller budget. Did it adapt some of the same theories or did it propose different ways of reaching its populace? Also, the paper looks into whether the country took cultural and societal realities into consideration when creating campaigns. The objective behind this disparate comparison is not to highlight any shortcomings in the developing country but to show that any nation, with small budgets for health communication, can use success stories, theories, and practices from developed countries (that may have already had to deal with the same issues) in order to create a campaign that works for them in their cultural realities.

The primary objective of the research is to determine the practical value of these advertisement and messages (by developed countries) in combating the pandemic. Such an approach is timely, because the recent pandemic has shown that small nations or developing nations have sometimes fared better in dealing with pandemics than those deemed developed.

This is a qualitative research that takes a constructivist approach to discuss the results, and it uses secondary data from statistics, research reports, and newspaper articles. The theories used include stages of change model and theory of reasoned action/planned behaviour.

Objective

The objective of the research is analysing multiple campaigns that leads to identifying a practical and tested method of advertising/communicating health messages.

This will help governments and concerned parties propose cost-effective but efficient and future-ready solutions that address the ground realities of their individual countries.

Media messages usually have overt and subliminal messaging to help nudge the audience in the direction the advertiser wishes them to take. Health campaigns sometimes take a similar approach. Governments, non-governmental organisations, interested parties, and pharmaceutical companies have all created campaigns over the decades that have had such messaging so as to push people to behave in certain ways and take certain medicines. However, a government's policy towards eradicating or managing a disease through health campaigns goes somewhat beyond advertisement messaging to educating and changing behaviour.

To do so, they create campaigns that can impact people over many years. The people tend to internalise the messages they have received over the years because of the efficacy of the campaigns. This creates a community consciousness about the disease. This consciousness leads the paper to ask the following two questions: How do the general public view those living with HIV? How do the people living with HIV see themselves after the health campaigns? The answers to this will inform the direction of this paper because it looks at how change happens in people based on the campaigns by official parties. The paper will attempt to understand the message's efficacy so that it can be used in other applications.

Results

The campaigns run during the first era brought about a fear psychosis that negatively affected many HIV patients and led to deaths of patients due to isolation and attacks by communities. In addition, the lack of understanding surrounding the disease further damaged the mentality of the next generation and HIV is still considered a death sentence in certain communities based on the generational perceptions.

Campaign 1 – Grim Reaper, 1987

The Grim Reaper advertisements, which set the tone for many advertisements in the coming years, was fear-inducing. The campaign shows the grim reaper knocking on the door of HIV patients with a fear-driven campaign highlighting the fact that HIV (AIDS) causes death. The advertisement shows that the disease known as AIDS kills indiscriminately, and it was meant to make people fear the disease.

Campaign 2 – Public Information Film, United Kingdom, 1986

A campaign under the title of "Public Information Film" by the United Kingdom in 1986 shows a hand carving the word AIDS on a stone in a dark and smoky environment and once the word is carved, the stone tablet crashes to the ground. The dark atmosphere as well as the falling of the stone (which looks very much like a tombstone) belies the message, which only says that there is now a new disease. The fear is palpable in the imagery.

These two campaigns are from the beginning of the pandemic show a clear-cut focus on fear. However, another campaign from the USA in the 21st century takes a different approach.

Campaign 3 – USVI Department of Health World AIDS Day 2016 Commercial

This commercial shows a young man who has been accepted to a university and goes out to celebrate with his friends. A sexual encounter there leads him to contracting HIV. His face on receiving the news shows the worries he feels, but his mother shows love and understanding, and the message only implores people to get tested and to seek help.

This type of commercial became popular during the past decade and shows a significant change in trajectory in the global response.

Sri Lankan response

The three decades seem to follow a similar health trajectory as the other countries in terms of the emotions felt by the populace. In the late 80s and 90s, the focus was on fear, not only for HIV but for other diseases such as leprosy. Many people with HIV faced discrimination and abuse. Princy Mangalika (founder of PWN+) had her house burned down and her children effectively refused entry to school because of her husband's (and later her) HIV status (Ranmuthugala, 2014). This is but one of many similar incidents in the country.

The 2000s brought with it a change of approach, one that utilized information to carry the message. Now, it is possible to see fact-based conversations in the advertisements or campaigns, where those infected speak about their lives and the realities of living with HIV. This allows, as with campaign 3 above, to understand and sympathize with the person living with HIV. The trend continues, with many programs being done on the topic. They are regular and consistent. This seems to have allowed for a shift in perception, at least in parts of the population. However, there is still a lot of work to be done. There are still many people facing discrimination: many are thrown out of their houses if they are positive and many HIV-negative people appear to believe that HIV can be contracted through casual physical contact (Ranmuthugala, 2014). This aspect is yet to be corrected, which may show a gap in the Sri Lankan approach to health communication. The country may need a campaign that brings together images and information to provide an evocative advertisement that helps people understand the disease and sympathize with the HIV-positive people.

Discussion

It is noted that the primary driver of campaigns during these decades was fear and it was targeted to equate HIV to a gruesome death full of suffering. It taught viewers to hate HIV patients and to regard them as potential invaders attacking their families through a disease that could potentially be spread just by smiling or touching another person. This type of campaigning caused global hysteria and damaged the mindset of viewers permanently. It is still seen in general conversations that come up even

amongst the educated where their attitude can be gauged based on the information provided by their parents or other authorities. Schools have no clear guidelines on how to interact with those children who have HIV and they have a lower quality of life. This can be easily fixed through a focused approach that is led by a positive communications campaign spearheaded by the government. The following recommendations by the authors focus on such campaigns and make measurable/actionable suggestions on dealing with HIV and the related negativity.

These recommendations are made by the authors to create a more positive culture around HIV while managing the current health concerns posed by covid-19.

Positive communication strategy

A clear-cut communications strategy highlighting the ways in which HIV is passed and the methods in which communities can support those with HIV can be introduced. The said campaigns would isolate target audiences based on languages, tones, and communication strategies to ensure that the message is well received. Sample testing by advertising agencies in coordination with relevant authorities is also recommended to ensure that the campaigns are well thought through and are high impact. This ensures that the perceptions held will be changed over time through education and measurable community responses.

Increase penalties/legal action

A strategy driven by the justice ministry and the local authorities is crucial to take action against those who attack or violate the rights of those living with HIV. The reason being that the current laws leave many gaps and loopholes for atrocities to be committed ranging from reported incidents such as burning of houses, attacking of HIV patients and public humiliation. By bringing in a punishable offense-based regulation, this can be stopped. Many patients have to move out of their villages and the emotional trauma caused by such incidents further blocks their chance of a normal life. This is both unfair and creates a hate/fear-

based culture that can pass on from generation to generation. It also increases the possibility of violence against other communities due to the lack of a strong response by local authorities against perpetrators of such crimes.

Actionable Policy Frameworks

Local authorities need to work with other agencies (both international and local) to track the current trends in HIV, identify and manage potential risks of transmission, and propose a framework to assist severe cases where funding and peace of mind is not available. Therapy is also a key aspect that is lacking in the local context where HIV victims are provided medical assistance but are not given the emotional support required to reintegrate themselves into society. The diagnosis of HIV creates anger and a very negative mental position for patients where research has indicated that their anger towards society at large for the isolation and responses shown creates a knock-on effect. Some turn violent and some target the gender that gave them the disease in general leading to more cases and more unreported incidents. This creates a culture of transmission through revenge - rather than a supportive and healing one - threatening both the safety of Sri Lankan citizens as well as the victims through the responses by local communities. It further increases the negative perception of HIV patients by the general population.

Conclusion

While HIV has become a manageable disease in recent times (it is now identified as a chronic disease much like diabetes), the response mechanism adopted by the general public still mirrors the older fear-driven campaigns run by many countries. The rights and respect for people living with HIV have always come under question due to the attitudes and traditional views of the general populous. Even in Sri Lanka, it is noted that outstation communities attack those detected with HIV and the families are shunned and shamed for having been associated with such persons. Traditional views and the closed culture

followed at times in the local context create a very difficult environment for those living with HIV.

Due to the current covid-19 outbreak, the situation has become worse where certain reports have arisen of HIV patients being focused upon by those in the village as potential high-risk carriers of corona due to their compromised immune systems. The basic understanding that the disease is kept in check by medication is not accepted and fear drives further isolation of HIV patients. Even in the major cities, the same aspect of fear is present where families ensure that children of patients with HIV do not spend time with their children (especially at school, as happened a few years ago in two different cases). One of these case studies in Sri Lanka is that of the child being taken away from his mother and a prominent government official mentioning that HIV could be passed on from the mother to the child as they sleep on the same bed is another clear example of why correct health communication is extremely important. Given that he was, at that time, the minister of education makes the matter that much worse. His comment was much publicized, and the wide audience set the HIV response back by a few years.

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Returns to Old Eurasian Heartland: China's New Strategic Game towards Central Asia in 21st Century

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Abstract—. The China's Belt and Road Initiative (BRI) position of Central Asia is in a crucial point and it is more vital as the hub of cross regional, long distance loops of trade, investment, and infrastructure development. In this research, the main objective is to find out the geopolitical nexus with Central Asia that induce China to persuade Heartland while examining the prevalence sources and mechanisms that China has used for reshaping Central Asia. Hence, China's new strategic game towards Central Asia is scrutinized by using Mackinder's Heartland theory and this new knowledge and ideas were generated and constructed by gathering qualitative secondary and primary data. The research reveals that China's influence in countries of the world–island of Heartland is becoming a trend in the recent years. By giving economic support, China tries to get patronage and loyalty from Central Asia and to challenge the maritime hegemony of the USA. In conclusion this research explores Chinese intentions in Central Asia under a specific set of conditions is likely to become the platform for a new great game. But the parameters for these conditions are unilaterally to emerge in the future. Hence China engages in a new great game as single unified land power through emerging Eurasia with railroads and transportation goods for being a unilateral power economically.

Keywords: Heartland, Belt and Road Initiatives, Land Power, Geopolitics, Geopolitical Nexus

Introduction

Even the term of geopolitics came into the international relations arena at the end of the nineteenth century, the actual practices of geopolitics began much earlier than the aforesaid era. However, in the 20th century, with the advent of railroads and the internal combustion engine, some theories like Alfred Mahan's 'Sea Power' were challenged by technological advances inland transportation. That means the land power assumed the dominant position in the discipline of *Geopolitics*. Therefore, Halford John Mackinder's Hartland theory played a prominent role and it was introduced from his book titled "Royal Geographical Pivot of History" in 1904.

Heartland is a region of the world situated in Eurasia and it is more vital due to its sheer size, a wealth of resources, and a high population (Sawe, 2017). From the theory, it is analyzed the political and economic success of the world's regions by geography. Somehow, today it is identified around the geographical boundaries of Central Asia.

In recent history, great natural barriers that surrounded the heartland are inspired by the German invasion of Russia during the Second World War. Even in the 21st century, it is still opened for a new type of invasion due to fifty presents of resources and geographical location of itself. Following that in recent years, China's influence in countries of Central Asia has been on an upward trend, by giving economic patronage and taking loyalty from them. Otherwise, China needed to emerge as the largest economy in Asia-Europe before it eventually surpasses the US as the superpower. Therefore, China is persuading Central Asia and tries to control heartland. One Belt One Road (OBOR) development strategy which is also known as Belt and Road Initiative (BRI) is a sort of attempt to solidify control over Mackinder's heartland. Hence, in this research, China's new strategic game towards Central Asia is scrutinized by using Mackinder's Hartland theory. In the contemporary context, the mentioned theory is used to analyze some insights for understanding the new arrival of new China due to trans-boundary regional nexus.

Methodology

This qualitative research is based on the methodology of constructivism. By knowing the reality, new knowledge and ideas will be generated and constructed by gathering qualitative secondary data and primary data. While using speeches of political leaders such as XiJinping's, Donald Trump's, Government policy briefs and, other basic documents as primary data, the author will Focus on a single concept or phenomenon by using secondary data gathering from Journal articles, scholarly books, and periodicals by using the aforementioned

constructive methodology. In addition to that, this method brings personal values into the study, and the author studies the context, validates the accuracy of findings and interprets the data and it is done as research practices based on constructivism.'

Figure 2. Mackinder's Heartland/ Pivot Area
Source: Mackinder, 1904

Results and Findings

According to Mackinder "Every century has had its geographical perspective." Hence the problem of how to view the world from a meaningful perspective is a fundamental challenge in every time frame is pressured by every geographer. Among them, Mackinder introduced a geopolitical concern regarding Central Asia, before known as Eurasia with the special name of Heartland. He carefully defined the portion of the Eurasian interior (Heartland) as a vital position with the technical instruments of the 20th century. It consists three basic geographic regions called outlined islands, offshore islands, and world islands and also, he mentioned that Europe, Asia, and Africa would have belonged to

World Island as well (See Figure 1). Thus, Hartland could be developed and integrated into resources and manpower scale for the potential superpower of the globe. Basically from Europe, all the way to Asia is something that Mackinder calls the world island and if anyone controls this heartland of this world island which is generally situated around Russia, Central Asia (the central part of the world island) they control the world then. As an example, during the cold war period, the Soviet Union controlled heartland when the United States of America built up their hegemony by using sea power of Mahan.

However, when considering the ancient silk road during Han Dynasty (2017 BCE-220 CE) Central Asia was generated as a bridge to connect China to Europe and the Middle East "Overland Trade" since many Centuries (Hoshmand, 2019). Hence Central Asia made an inevitable path for Genghis Khan and his descendants to conquer such places including Syria and Poland. Historically, on one hand, Turkic island influenced and another hand the connection of Xingjian has always disturbed the stability of Central Asia's western border territory.

Many Centuries ago China and Central Asia had historical relations in peace, war, trade, and intermarriage bonds. Otherwise, by using these historically valued ties, China has tried to arise powerfully on the global stage with the fundamental domestic economic transformation and China already can reshape the prevalence economic potentials of Central Asia as well.

When it comes to 21st century Central Asia emerge as the region which brings new opportunities to China's ambitions. That initiatives call "Go West". In that concept, China develops it's lagging interior and border regions. Following that it seems to be operating hegemonic power and China controls the heartland or even controlling the Rim Land.

However, the unprecedented return of Beijing to Central Asia has been marked with China's President Xi Jinping's tour to Central Asia in 2013. Now China accepts that the importance of the Silk Road Economic Belt which is known as globally ambitious Belt and Road Initiative (BRI). Hence China's BRI position of Central Asia is in a crucial point and it is more vital as the hub of cross-regional, long-distance loops of trade,

investment, and infrastructure development. Hence they need to expand the old Silk Road through the new Silk Road economic belt and twenty-first century maritime Silk Road.

In accordance, the heartland theory helps to understand Central Asia through the past century and it deeply analyses political mobilization, some parameters of economic flow, geographical factors on Eurasia, and the importance of spatial boundary of their broad region. Hence his ideas grew seeds in the field of geopolitical and diplomatic studies and continue to give a theoretical contribution for further ideological development of Eurasia today. To better understand the development of Central Asian nations that after or before the dissolution of the former Soviet Union should be scrutinized. The post-soviet independence Central Asia pursued their economic destinies by reconnecting Western Europe through the European Union. But as in the case, most east European economies are turning more to China for economic cooperation as Central Asia because of the historical practices and now the Shanghai cooperation plays a significant role regarding previously mentioned purpose.

However, with the East Soviet era, the economic positions of the countries at the western and eastern turned into China. It is generally familiar with the now outdated third world scheme. Therefore, the former east European socialist countries were labeled as the second world and China was part of the third world. However, the world-systems theory tends to classify the former as belonging to the semi-periphery zone of the tripartite world economy with the zone and periphery (Chirot, 1986). Or an extra category of others (Baboues, 2005). While China plays a role in the periphery before 1980 and significantly rose to the semi-periphery in the 21st century. Now China has captured the world economy for the long term.

China has risen and returned to Asia's center of economic gravity. They have come in power position by pressuring on the BRI which forges direct and has close connectivity with Europe through Central Asia. However, now china leads Trans connected Eurasian railway. It is the fasted way to exchange goods rather than sea routes. Over these landlocked countries, extensive energy links from and through Central Asia has

been created. However, China practices a new great game as a strong regional power.

With the changes and continuations of the term "Great Game," China's role in Central Asia is much more significant. They play in the field of the region by stretching up Mackinder's predictions. China is a constituent of the world island as other major global powers including the EU, India, and Russia. In recent years, China's influence in countries of the world island has been an upward trend with the country using economic support to gain, patronage, and loyalty from the countries. But the term 'Great Game' has a different meaning when considering the classical and new era. Classical definition started around the 1830s. That era had more tension, and confrontation between the British Empire and the Russian Empire. They held their autocracy regarding the places that today's known as Central Asia and South Asia. There has a certain theoretical influence on their recent history and today's dynamics as well.

Now China and Russia are the two dominant power players vs. the weaker sooner independent Central Asian states. Even these countries' population is high, richest from the resources they are a group of colonies or small emirates. And also, they are largely underdeveloped. According to Cooley, he saw a new great game emerging with the continued involvement of the United States against a newly aggressive Russia and a resource-hungry China in Central Asia (Chen, 2018). However, political corruption, social instability, and economic weaknesses have created an open space for a new great and strategic game. However Central Asian leaders are more prone to make a close connection with external global power through business networks, elite banks accounts, overseas courts, third-party brokers, and western lawyers.

China has used this new regional space with a primary geo-economics strategy by promoting trade, securing energy supplies, and building cross border infrastructure. As a part of the new great game, China reshapes regional and bilateral trade ties over the trade routes in Central Asia. Otherwise, China is the largest trading partner with the whole region and has replaced Russia's earlier dominance in trade with Central Asia. Because China needs to emerge as the largest

economy in Asia-Europe before it eventually surpasses the United States as the superpower.

Discussion

By launching the BRI, China has created a geo-economics strategy to build up deep overland trade and infrastructure ties to the larger Eurasia and Europe. In accordance that the term of the great game after 2013, with the BRI, it brings up mutual benefit sand with aforesaid heavy involvement in Central Asia, the real new great game is happening. Otherwise, with the geographic proximity, the BRI involvement justifies as a part of China and the "global south". Therefore, there are two types of nexus can be seen in between China and Central Asia as follows.

A. Energy nexus between China and Central Asia
When considering Kazakhstan and Turkmenistan GDP per capita around $9000 is slightly higher than China's. Because of the energy wealth and a much smaller population. When considering examples, the GDP per capita of Kyrgyzstan, Tajikistan, and Uzbekistan averaging less than $ 2500. That reason also motivates to China's interests.

However, China and Central Asia have strong energy ties which call Trans-boundary" energy nexus". China's motivation for global and regional development and engagement strategies can be identified as a result of them. However, China is always inspired by Central Asia's domestic, economic, and political conditions. In the past three decades, a huge need for imported energy has been generated due to the sustained growth of China's economy. Somehow this situation changed the global supply-demand equation as well.

The issue is that emerging China's megacities, as well as massive manufacturing machines, are running on a huge amount of quantities of coal, oil, and natural gas because of that China has become the world's largest energy consumer during last 20 years. They take almost 20% of the world's total energy consumption today. But the rapid growth of China's demand for energy has far challenged by its domestic supply. It is not enough. Because its' booming energy requires China to import more than half of the oil it needs. According to the United States energy information administration (EIA) China may import about 75% of the crude oil it will consume by2035. (Chen & Fazilov, 2018). However, even according to Mackinder 'who rules east Europe, commands the heartland.' In accordance that China's growing demand for energy has expanded its sources of imports including Central Asia. It helps to China for becoming a superpower in the world.

China has depended on numbers of the Middle East and African countries which are entertaining law political stability. Likewise, China has begun to dig and complete its international energy sources by sponsoring the development of China-bound pipelines in Myanmar and Central Asia. When it comes to China's energy policies it is more important due to its potentials of oil and natural gas deposits. The most important thing is that Central Asia is bearing 4% of global energy deposits in the world. The oil resources in central Asia and along the Caspian Sea coast around 17 to 33 BBI/day with more unexploited deposits (Chen & Fazilov, 2018). China has turned to Central Asia for energy consumptions for two reasons. One is that China aims to compete with its energy security. By developing its 'Energy Diplomacy' within the region. The second reason is that developing close ties with Central Asia through and energy nexus helps China deter threats from the separatists' activities in the Xinjiang Uyghur autonomous region which has oil fields near the western border of Kazakhstan, Kyrgyzstan, and Tajikistan.

In Central Asia, China has built up a regional trade zone to search for energy resources. Nowadays the major Chinese energy players in the region are China National Petroleum Cooperation, China National Offshore Oil Cooperation, and Petro China. These companies have comparative advantages from the partnership with Central Asia for the oil needs they grant technological support, service teams, and engineers. However, two main gas lines that can be identified as the Central Asia-China Gas Pipeline and Kazakhstan-China Oil Pipeline. (See figure 2)

Figure 2. Central Asia-China oil and gas pipelines
Source: Chen & Fazilov, 2018

However, because of the massive oil reserves, Kazakhstan is most attractive to China for energy cooperation. Kazakhstan proven offshore and onshore fields' reserves constitute about 37 billion barrels of oil and 3.3trillion cubic meters of natural gas. Therefor Chinese energy companies are investigating the oil reserves in Kazakhstan and they expect to expand its export capacity by 20 million barrels in the future. There is cooperation for helping strengthen and secure its natural western borders from the separatists. And also this cooperation provides new energy resources to support China's 'Go West' program and helps it gain greater access to resource basins of Central Asia.

Otherwise, Turkmenistan is one of the world's largest natural gas exporters. According to the oil and gas journal Turkmenistan has proven natural gas reserves of approximately 265trillion cubic feet in 2012. That natural gas reserves have drawn significant attention and influence from China. Otherwise, the evolution of energy ties between China and Turkmenistan brings more benefits to both sides. Even their biggest competitors Russia and Iran still in the competition and Beijing has won the challenge by securing new gas supplies. However, China's heavy investment in Central Asia's energy has been driven by its domestic economic growth, performance and its demand for external energy will continue to shape its need for Central Asia's oil and gas. The belt side of the BRI further ensures this prospect.

B. Rail road's nexus between China and Central Asia

The reconnect with Europe along with the old Silk Road China has built up an integral strategy and broad land bridge by referring to the BRI project. This railroad projects are more important to the multidirectional influence of Beijing towards Central Asia (See figure 3).

Figure 3 . The Trans-Eurasian Railroad (The Chongqing-Duisburg Line)
Source: Ibraheem, 2018

In accordance that China presses to reevaluate the relative merits of the heartland by a new great game. China has also begun to create and strengthen its long-distance railroad connections to Europe by expanding the overland connectivity via their trade goods under BRI. The China-driven Eurasian railroad has multiplied and spun off more lines as its geographic starting points. It has shifted from East to inside China to include a growing number of cities across a more expensive territory. These railroads are executed for transport logistics and relaying hubs.

According to Mackinder, he saw the geographic scope of the Eurasian landmass importance to Britain's and America's diplomatic interests. They shared a similar geopolitical organization and approach to the region. But China has almost unilaterally shifted the understanding of Central Asia away from the geopolitical end to the geo-economics side. However, these energy nexus Trans bounding pipelines, train lines have begun to re-center Central Asia as an important hub of BRI. But with the influence of China 'Sinophobia' may arise within Central Asian countries. But China still is in the driver's seat to reshape the relative balance between opportunities and obstacles in Central Asia. However Mackinder's heartland theory still relevant in Central Asia and this research proved that the theory indications

are strategically used by China to become the world's largest economy and full fill their energy security.

Conclusion

According to Mackinder's heartland theory, 'what a dominant world power has to control heartland to be a global power. In history, the Soviet Union controls heartland to become hegemonic power and their strategic behavior was differ from the new great game. However, when considering new great games China seems to be controlling the heartland or even controlling rimland by using BRI. However not likewise the USA China is growing in strength from land base power and largely challenges the maritime American hegemony in a contemporary revision of Mackinder theory. Hence his theory is more appropriate to explore the dimensions of China's engagement with Eurasia/Central Asia. Because China's position towards Central Asia is characterized by a long term consistent and geographically motivated foreign and security policy. Hence China is likely to become the most important long-term power and referring point in and for Central Asia. Finally, when concluding this research author explores her intentions by saying Central Asia would only under a specific set of conditions become the platform for a new great game but the parameters for these conditions are unilaterally to emerge in the force able future.

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