

# Cassandra Complex: Analysis on Law Relating to Climatic Change in Sri Lanka

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**Abstract**—According to the strategic report of Ministry of Disaster Management in Sri Lanka, a sever landslide occurred in Meeriyabedda area in Kotabatha Grama Niladari Division in Haldemulla Divisional Secretariat Division in Baddulla Distrct in 29<sup>th</sup> October 2014 at 7.30 a.m. Due to this landslide number of people lost their lives and lives of their closed ones also number of people lost their housings. This happened due to sudden and heavy rains caused by the changes in the rain cycle in Sri Lanka. Washington Department of Ecology identifies very severe landslides as a result of climatic change. Therefore, now it is high time to identify Sri Lanka as another victim of Climatic change in the world. It is clear that we have certain laws pertaining to the climatic change, but nor key legislation. Number of environment related legislations are indirect contributors in mitigating the issue. However, still there are issues in implementing and practicing. In this backdrop, author seeks to analyse the laws, regulations and policies relating to the climatic change in Sri Lanka and to suggest possible recommendations in order to mitigate the impacts of climatic change in Sri Lanka. The research would follow the legal research methodology which is mainly based on the literature review of Environment Law Legislations, Regulations and Policies. Particularly, the research is based on primary sources of law such as international documents, statutes, and judicial decisions. Further, this study engages in a comparative analysis of the concepts of International Environmental Law principles with domestic Environmental Law.

**Keywords:** Natural hazardous, Climatic change, Environmental laws

## I. INTRODUCTION

'Cassandra Complex' is a historical mythology in Greek culture. Cassandra in Greek mythology, was one of the princess of Troy, daughter of Priam and Hecuba. According to the Myth, Cassandra was astonishingly beautiful and blessed with the gift of foreseeing the future. Her curse was that no one believed her, a fact that weighed heavily on the destruction of Troy during the Trojan War(Greek Myths and Greek Mythology).There are several different versions explaining the gift and curse of Cassandra; the most popular one is that God Apollo fell in love with her and granted her with the gift of prophecy.

When Cassandra denied the God and his advances, he placed a curse on her, so that no one would believe her words or her predictions. He gave her a gift that would bring frustration and despair to her(Greek Myths and Greek Mythology). Therefore, it is evident that she had a power to predict future correctly but because of the curse no one believes her words. This Cassandra Complex has been used for psychological interpretations. A famous psychologist Melanie Klein provided an interpretation of Cassandra as representing the human moral conscience whose main task is to issue warnings. Cassandra as moral conscience, "predicts ill to come and warns that punishment will follow and grief arise." (Klein, M.,1975) Cassandra's need to point out moral infringements and subsequent social consequences is driven by what Klein calls "the destructive influences of the cruel super-ego," which is represented in the Greek myth by the godApollo, Cassandra's overlord and persecutor. (Klein, M.,1975) . Many environmentalists have used Cassandra myth in explaining different environmental problems. Such as climate change, flood, rise in sea level and pollution issues etc. Environmentalist Atkisson has stated that, 'many environmentalists have predicted looming environmental catastrophes including climate change, rise in sea levels, irreversible pollution, and an impending collapse of ecosystems, including those of rainforests and oceanreefs'(Atkisson.A,1999).

Environmentalist Alan Atkisson states that to understand that humanity is on a collision course with the laws of nature is to be stuck in what he calls the 'Cassandra dilemma' in which one can see the most likely outcome of current trends and can warn people about what is happening, but the vast majority can not, or will not respond, and later if catastrophe occurs, they may even blame you, as if your prediction set the disaster in motion (Atkisson.A,1999).So it is very clear that present day most of the people and state parties may heard about the environmental issues and hazardous but very reluctant to take necessary precautions to overcome it. Further people know about the impacts of their behaviors but not ready to accept the repercussions. However their

hesitation to acceptance becoming a curse made by the nature. The Haldemulla Landslip in Sri Lanka also this kind of a curse made by nature. For the Haldemulla landslip basically inappropriate house location has affected prominently and also according to the Washington Ecology Department this nature of high landslips are kind of a result of climatic change. However in this Haldemulla incident, it was not considered as an issue in climatic change. But if we look in to the root cause of the incident is the change of the rain cycle and sudden changes in climate. When it comes to the laws relating to the climatic change, it is really a sad situation. Because Sri Lankan law has not identified this as a cardinal problem. The establishment of the climate change secretariat is a mile stone in overcoming the issue. Apart from these there are some gazette notifications which planning to mitigate the releasing of emission gas to the air. Therefore, in this paper author seeks to analyse the laws, regulations and policies relating to the climatic change in Sri Lanka and to suggest possible recommendations in order to mitigate the impacts of climatic change in Sri Lanka. First the paper will focus on the issue of climate change then certain Sri Lankan examples will analyse. After that paper will focus on domestic laws and international standards. Finally paper will suggest possible recommendation based on the conclusion

## II. CLIMATE CHANGE

The Earth's climate has changed throughout history and just in the last 650,000 years there have been seven cycles of glacial advance and retreat, with the abrupt end of the last ice age about 7,000 years ago marking the beginning of the modern climate era — and of human civilization (NASA). Climate Change can be occur due to two basic reasons. Firstly natural reasons and secondly human involve reasons. For many people, climate change is both a cause for concern and a source of confusion (Deplege. M, 2007) the sheer range of underlying causes and emerging consequences coupled with the threats posed to physical, social and economic well-being make climate change seem at once urgent but also beyond the reach of the public and private sectors (Deplege. M, and Carlame. C2007). While climate change originated as an environmental problem, it now impinges on every aspect of human life including international peace and security (Christopher. P,2007). Global warming is the cardinal feature in the climate change. The current warming trend is of particular significance because most of it is very likely human-induced and proceeding at a rate that is

unprecedented in the past 1,300 years (IPCC, 4<sup>th</sup> Assessment Report).

Certain gases in our atmosphere known as greenhouse gases allow the lower atmosphere to absorb the heat released by the Earth's surface, trapping it within our atmosphere, greenhouse gases, such as water vapor, carbon dioxide, and methane, are important to our ecosystem because their entrapment of heat prevents Earth from turning into a block of ice. (Kaita. C.). Due to these gases global temperature has been changed and global warming has been started. As a result of that the climate of the earth has started to changed drastically. If the warning continue there is growing consensus that the prospect of adverse climate change is not going to diminish in the near future, unless dramatic mitigation and adaptation measures are adopted and implemented (Downing. T, 1997). This is a crucial situation because as a result of the climate change many natural disasters are happening and human lives and many things are destroying. Therefore, it is important to examine environmental hazardous facing due to the climate change.

## III. ENVIRONMENTAL HAZARDOUS

Vulnerability to climate change refers to the extent to which countries will be adversely affected by climate change as well as their capacity to cope with those impacts in an effective and timely manner (UNEP., 2011). When it comes to the impacts on climate change we can identify much social, cultural and environmental harm. Further, scholars identify that it will have a disproportionately harmful effect on developing countries and in particular poor communities who are already living at or close to the margins of survival (Atapattu. S, 2011). The impacts of climate change on food security, access to water, human health, ecosystems, urban areas, and frequency of disasters will have severe implications for the achievement of sustainable development. (Atapattu. S, 2011). Furthermore, in 2008 report of Greenpeace noted that; 'climate change is the biggest environmental threat faced by South Asia and may well be the biggest humanitarian and economic challenge that the developing world will have to face in the coming decades. While the world has woken up to the threat of climate change, the true enormity of what this implies is still sinking in. Governments are yet to face up to the extraordinary social and economic problems in the future, not to mention environmental impacts that unchecked global warming would generate' (Blue Alert, 2008). Basically

water storages, food insecurity, increased salinity, inundation of low lying cities, soil erosion, coastal erosion, extreme weather events, sudden land slips and land slides and finally loss of endemic species are crucial environmental harms that can occur due to the climate change. In this scenario author would like to focus more in to the incident of the sever landslide occurred in Meeriyabedda area in Kotabatha Grama Niladari Division in Haldemulla Divisional Secretariat Division in Baddulla District in 29<sup>th</sup> October 2014 at 7.30 a.m. This was a sad situation occurred in Sri Lanka. Mainly scientist authorities found that this was due to heavy rain. Currently many scientist have examined that in Sri Lankans rain system has changed rapidly. Due to this rapid change of raining system this nature of sudden landslides are occurring very frequently in Sri Lanka. Therefore, it is utmost important to identify this as a direct consequences of the climate change in Sri Lanka. In other words, we can label Sri Lanka as another victim of climate change.

#### IV. INTERNATIONAL STANDARDS

The international community can achieve an effective and equitable response to climate change by strengthening its commitment to mitigate response to climate change by strengthening its commitment to mitigate, adapt, funds and innovate (Burlison. E, 2010). Climate change was identified as an environmental threat in 1992 by the United Nations Convention on Climate Change (UNFCCC, 1992), it plays a vital role in eliminating climate change in the world. This significance of this instrument is it commits all parties to 'common but differentiated responsibilities'. In the Article 2 of the UNFCCC it states that; stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous human interference with the climate system. In the UNFCCC it makes a distinction between Annex -I and non-Annex I countries. Developed countries come under the Annex-I and developing countries come under the non-Annex-I countries. Under these two separate demarcations the said instrument tries to impose different responsibilities to countries in the same world. Secondly Kyoto protocol(1997) comes to the force. This discusses the importance of reducing greenhouse gas emissions 5% below 1990 levels during the first commitment period (2008-2012). Also they tried to implement this for the Annex-I countries whereas Non-Annex I countries have no emission reduction obligation under the protocol. Therefore, it is clear that even the Kyoto Protocol also based on the 'common but differentiated responsibility

principle'. Further when examining the Kyoto Protocol provisions we can see that this is based mainly on the mitigation, and in that context we can identify the precautionary principle also been affected for this. The Kyoto Protocol entered into force in year 2005 and now there are 190 countries signed for this document. Then Bali Action Plan (2007) need to discuss in this context and significance of the Bali Action Plan is it is the first time developing countries acknowledged that they will have to adopt binding obligations during the 2<sup>nd</sup> commitment period. 2009 Copenhagen Accord comes to the picture. 136 countries have signed the Accord now and it endorsed the continuation of basic framework of Kyoto. However no binding document yet formed. In Copenhagen, the 2050 target was dropped and the term 'verify' was reduced to the following compromise: 'Non-Annex-I parties will communicate information on the implementation of their action through National Communications, with provisions for the international consultations and analysis under clearly defined guidelines that will ensure that national sovereignty is respected' (Burlison. E, 2010) Then Cancun Meeting is important.

The Intergovernmental Panel on Climate Change (IPCC) has called upon industrialized countries to reduce Green House Gas (Hereinafter GHG) emissions by twenty five to forty percent from 1990 levels by 2020, and cut global emission by half before 2050 (Burlison. E, 2010). The 2007 IPCC report reflected political and scientific consensus between 2000 and 2005 (Porritt, J, 2008). Therefore, it is clear that through the international instruments several attempts are made in order to reduce climate change. However, due to the acceptance by different countries some of these international instruments are merely in discussions only.

#### V. SRI LANKAN LEGAL EXPERIENCE RELATING TO CLIMATE CHANGE

According to the National Climate Change Policy of Sri Lanka 'Being a developing island nation subject to tropical climate patterns, Sri Lanka is highly vulnerable to climate change impacts. Extreme weather events such as high intensity rainfall followed by flash floods and landslides, and extended dry periods resulting in water scarcity are now becoming common occurrences in Sri Lanka. Any adverse changes in already volatile weather patterns are likely to impact adversely on the socio-economic activities in the country. Therefore urgent action is necessary to take adaptive measures to build resilience of the country to

face the adverse impacts of climate change'. Sri Lanka being an island nation climate change is a critical environmental issue need address. Sri Lanka being a dualist country mostly we are sort of hesitant to take international laws into the domestic affairs. Yet, Sri Lanka is very proactive in being a signatory party to many international instruments. Sri Lanka ratified both UNFCCC and Kyoto Protocols. As a party to the UNFCCC, Sri Lanka has already submitted its first national communication in 2000. National Environmental Act No. 47 of 1980 (Hereinafter NEA) and subsequent amendments in 1988 and 2000 are the key environmental legal instruments in Sri Lanka. Still, NEA does not provide a sound legal coverage for the climate change in Sri Lanka. When it comes to the air pollution and vehicular emissions part IV of the NEA is important. With relating to the Part IV of the NEA there are several Gazette notifications are set up to reduce the emission of certain GHG's. Specially Ozone Depleting Substances and Natural Environment (Ambit Air Quality) Regulations which was published by the Gazette No. 850/4 of 20.12.1994 is relevant. Under this regulation certain standards have been introduced. The use of materials listed in this regulation has been banned effect from 1<sup>st</sup> January 2000. The National Environmental (Ambient Air Quality) Regulations published by Gazette No. 1562/22 of 15.08.2008 introduced permissible air quality in relation to the classes of air pollutants have been introduced. National Environmental (Air Emission, Fuel and Vehicle importation standard) Amended Regulations Gazette No. 1295/11 of 30.06.2003 and National Environmental (Air Emission, Fuel and Vehicle Importation Standards) Regulations Gazette No.1557/14 of 09.07.2008 are relevant for the introduction of vehicle exhaust emission standards accordingly. Intention of these gazette notifications was to discourage the use of GHG's through vehicles and other means.

Furthermore, National Climate Change Policy of Sri Lanka has seven objectives such as ; Sensitize and make aware the communities periodically on the country's vulnerability to climate change, to take adaptive measures to avoid/minimize adverse impacts of climate change to the people, their livelihoods and ecosystems, Mitigate greenhouse gas emissions in the path of sustainable development, Promote sustainable consumption and production, Enhance knowledge on the multifaceted issues related to climate change in the society and build their capacity to make prudent choices in decision making, Develop the country's capacity to address the impacts of climate change effectively and

efficiently, and Mainstream and integrate climate change issues in the national development process.

Moreover, under the Ministry of environment and Natural Resources in Sri Lanka, there is Climate Change Secretariat, which is establish to control and mitigate climate change effects in Sri Lanka.

Sustainable Energy Authority Act in 2007 also relevant in this regard. Its main objective to develop renewable energy resources, to declare energy development areas, to develop energy efficiency measures and conservation programmes, to promote energy security, reliability and cost effectiveness in energy delivery in Sri Lanka. Therefore, to eliminate GHG's this act also important however, it does not directly discussion about the climate change issue.

Additionally, in Sri Lanka there is a National Advisory Committee on Climate Change (NACC) to address issues in the climate change in Sri Lanka. NACC is formed under the Ministry of Environment and Natural Resources in Sri Lanka and all activities pertaining to climate change will be coordinated by NACC. The main objectives of the NACC are as follows; to ensure that climate change policies and programmes are consistent with national development priorities and objectives, to function as the forum to address climate change issues in the context of national development agenda and as a consultation forum in the development of climate change related policies and actions, and to recommend research studies on mitigation, impacts and adaptations to be undertaken by researchers, promoting private sector participation in Clean Development Mechanism (CDM) projects (CCSSL, 2014). Also to fulfil those objectives they are bound by certain responsibilities such as; provide overall guidance for the preparation on National Communication on Climate Change including an inventory of greenhouse gas (GHG) emissions and removals from anthropogenic activities such as energy (generation), agriculture, forestry and land use changes and waste management, and the ongoing Second National Communication preparation process, Provide guidance to formulate policies, and strategies that would mitigate emissions of Greenhouse gases and enhance sinks and reservoirs of all GHGs, Provide policy options for adaptation and response strategies for climate change impacts on key socio-economic sectors, Make recommendations on suggested policies, strategies and plans for adaptation to adverse impacts of climate change including appropriate capacity

building and research studies on the likely impacts of climate change for the management, protection and rehabilitation of areas vulnerable to the impacts of climate change, Facilitate developing negotiating positions and strategies for the Government of Sri Lanka for meetings of the COP of the UNFCCC, Provide guidance to promote and cooperate in scientific, technological, technical, socio-economical and other research, systematic observation and development of data archives related to climate system and enhancing networking and information sharing / exchange amongst all stakeholders , Advising to formulation of the Second National Communication (SNC), including recommendations and decisions of the Technical Working Group & review the activities of the Clean Development Mechanism (CDM) Process and To have strategies and programmes to promote awareness and generate action to reduce Greenhouse gas emission levels through the wider participation of members of the public. (CCSSL,2014)

#### VI. CONCLUSION

Currently, Sri Lanka becoming a major victim of the climate change. Due to its natural location and the nature of the country effects will affect critically. Nowadays , sudden changes in raining system in Sri Lanka occurred due to the climate changes in Sri Lanka. Sri Lanka been a signatory party to the UNFCCC and Kyoto needs to take more steps to reduce GHG's. However, major Act pertains to the environmental protection that is NEA does not address this issue comprehensively. It in way shows the commitment to address this issue. However, CCSSL plays a vital role in this context. Still it needs more authority to eliminate climate change. Also the national policy to address this issue is progressive attempt but need more formalized manner to activate it. Giving more significance to Copenhagen Accord is really important because it gives both developed and developing countries a platform to address the issue. Climate change is a major issue to the world and this will be the next fundamental environmental harm to the world. Therefore, trusting the words and working towards to the mitigating its effects are utmost important. Otherwise Cassandra curse will come to the man kind in the world.

#### ACKNOWLEDGMENT

Author would like to express gratitude for Professor Veerle Heyvaert, Associate Professor of Law, London School of Economics and Political Science, for giving valuable remarks to the research at the conference and also I would like to express my sincere gratitude to Dr.

Kokila Konasinghe , Senior Lecturer in Law, Faculty of Law, University of Colombo for encouragement and for constructive comments for the improvement of the research .



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