

Transboundary Implications of India and Nepal Air Pollution Policy Implementation and South Asian Association for Regional Cooperation

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Abstract – *The expansion of environmental politics is a major revolution which was expanded as a form of political activity in international relations. Particularly smog with particulates can be recognised as a transboundary air pollution in the South Asia region. Environmental issue like smog is not appeared frequently on the international agenda even within the banner of some regional cooperation that negotiate some binding environmental agreements. Smog with particulates are generally acknowledged as a threat to the region as well. It means that the South Asian countries are steadily experiencing various grievance of smog with particulates for the last few years. It has also formed health and environment effects to the region. India and Nepal are prominent contributors to smog with particulate air pollution in the region due to industrialization, population growth, and weak implementation of air pollution policies.*

Main objective of this paper was to examine the response of SAARC with regard to the problem of smog with particulates in the region. It is true that smog with particulate pollution is a transboundary difficulty to the region where none of the countries can maintain it alone. Further there are inter-governmental agreements to tackle regional air pollution problems such as The Male Declaration on Control and Prevention of Air Pollution which was signed in 1998. SAARC can also play a vital role in regional environment management by establishing regional environment quality standards.

Keywords- Transboundary Air Pollution, Environmental Politics, Regional Cooperation, Policy

I. INTRODUCTION

“Air pollution is contamination of the indoor or outdoor environment by any chemical, physical or biological agent that modifies the natural characteristics of the atmosphere. Household combustion devices, motor vehicles, industrial facilities and forest fires are common sources of air pollution.

Air pollution can be categorized in to two types such as smog and particulate air pollution and carbon emissions which provide effects for climate change as well as global warming. These air pollutants which spreads across more than one country and it is called trans-boundary air pollution. Yet this air pollution contributing to problems

that range from human health issues to environment degradation.

Transboundary air pollution require international actions and collaboration to control their formation and effects. It cause a number of different problems: Eg: formation of particles, ground level ozone which are hazardous to health, the formation of acid rain which can damage buildings and sensitive ecosystems and some that are toxic to human health and the environment. Transboundary air pollution has associated with adverse human impacts and it is a major source of morbidity and mortality .The young and the old with vulnerable immune systems are most at risk from this pollution. Smog with particles can irritate the eyes and throat, irritate the skin and damage lungs especially of people who work or exercise outside, children and senior citizens. Long term exposure can lead to more serious health problems such as impaired lung function and higher rates of pulmonary disease.

India suffers considerably from air pollution, having four of the top ten cities with the highest concentrations of PM2.5 in the world according to the World Health Organization. And despite Indian authorities adopting ambitious pollution control measures, the anticipated economic growth in India might further deteriorate Delhi’s air quality.

India’s toxic air reaches Nepal when the air blows in certain directions, covering skies with thick smoke haze mostly in summer period. This trans-boundary air pollution effect on public health. Especially trans-boundary air pollution is common in districts of Nepal sharing a boarder with India. Delhi and the cities of Utter Pradesh which frequently rank among the worst polluted in the world are few hundred miles away from Kathmandu in air distance. Also the resulting smoke of straw left over from the harvest in North India is toxic which blows the atmosphere of Nepal. There is no direct control over cross boarder air pollution.

Trans-boundary air pollution is changing the atmospheric process in the South Asia, melting the Himalaya glaciers and affecting the ecosystems, agriculture and food security in the South Asian countries. Air Pollution affects aviation, railways, agriculture, monsoon and the countries' economies as well. The black carbon rises into the atmosphere and is driven by winds on to the snow or ice in the Himalayas, darkening the surface and in the process

reducing reflectivity and causing the surface to absorb more heat. Also the historic site of Buddha's birthplace in Nepal faces a serious threat from air pollution.

South Asian countries such as India and Nepal face rapidly growing health hazards associated with indoor and outdoor air pollution caused by extensive use of biomass for energy, poor sanitation and waste management. India and Nepal need to adopt effective pollution control measures in urban and rural areas and negotiate and implement trans-boundary air pollution abatement measures at regional level such as the Male Declaration on Trans-boundary Air Pollution (South Asia Environment, 2009)

South Asian Association for Regional Cooperation (SAARC) could be a possible forum for looking into ways and means in generating possible support for strengthening Male Declaration.

Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka together form the South Asia Association for Regional Cooperation (SAARC), an organization developed to promote regional economic cooperation. Established in 1985, the organization has the core objectives:

- (i) to promote and strengthen collective self-reliance among the countries of South Asia
- (ii) to develop mutual trust, understanding and appreciation of one another's problem;
- (iii) to promote active collaboration and mutual assistance in the economic, social, cultural, technical and scientific fields;
- (iv) to strengthen cooperation with other developing countries;
- (v) to strengthen cooperation among themselves in international forums on matters of common interest
- (vi) to cooperate with international and regional organizations with similar aims and purposes. SAARC support to MD

The level and nature of air pollution in any country has implications for the economy of that country as well as neighbouring countries. The importance of a regional level framework for combating air pollution and its harmful effects can only be assessed after reviewing the socioeconomic situation in South Asia and establishing the impact of air pollution on various socioeconomic parameters.

Once governments and society realize the potential damages caused by air pollution, sufficient support can be garnered at the national and regional levels to combat this environmental hazard. High levels of air pollution have a serious impact on the environmental quality that imposes economic costs associated with reduced quality of life, lost

productivity, due to acidification and ozone impacts and health care costs.

The persistent Atmospheric Brown Haze over Bay of Bengal has been traced to emissions from South Asian and South East Asian countries. This haze consists of sulphates, nitrates, organics, black carbon, fly ash and other pollutants. Several key reasons affect the brown cloud of Bengal such as biomass burning, rapid industrialization, urbanization, industrial air pollution, indoor air pollution (biomass burning), increasing traffic trends, thermal power plants and incineration of solid waste and lack of alternative environment-friendly energy sources are primarily responsible for this haze over South Asia.

The Governing Council of the South Asia Co-operative Environment Programme (SACEP) adopted the 'Malé Declaration on Control and Prevention of Air Pollution and Its likely Trans-boundary Effects for South Asia' in 1998 at its 7th meeting. The Declaration stated the need for the countries of South Asia to carry forward, or initiate, studies and programs on air pollution. The Malé Declaration is the first regional environmental agreement in South Asia to tackle trans-boundary air pollution; the participating countries are Bangladesh, Bhutan, India, Iran, Maldives, Nepal, Pakistan, and Sri Lanka. UNEP is the Secretariat for the Malé Declaration programme. The Male Declaration consists four phases such as Phase 1 – Baseline information and awareness raising, Phase 2 – Capacity building, Phase 3 – Tackling air pollution problems through impact assessment studies and Phase 4 – Strengthening initiatives and developing new ones

II. METHODOLOGY AND RESULTS

The main research objective is to analysis India and Nepal Trans boundary air pollution policy implications and regional cooperation. Qualitative research methods would be accepted with an exception of quantitative methods. The research design is carried out by analysing existing and previous literature such as conventions, protocols, case studies, discussions and articles etc subjective to qualitative analysis.

Empirical studies carried out by scholars, scientists, focus groups, use of statistics and data published by recognized institutions such as United Nations ,South Asian Association for Regional Cooperation and other government and non-government organizations) to be used. Qualitative data would be collected from individuals such as academics, scientists and policy makers etc Method of data collection would be semi-structured interviews done informally pertaining to Transboundary air pollution policies.

It can be identified that the lack of policies for trans boundary air pollution effects the increase of air pollution level in both counties Air pollutants as a by-product of unregulated industrial activity, pollution is perhaps the most visible and publicized issue. It may also be the

deadliest. The benefits of cleaner fuel types, will be able to reduce the air pollution. According to the information received from various sources the products of agricultural harvests, called stubble, are being burnt in Punjab and Haryana – near Delhi – at an estimated rate of 500 million tons each winter. But anti-burning laws are weakly enforced, and State Pollution Control Boards appear to be negligent on the issue. Also it can be identified that manufactures continue to push back against regulations. The institutional framework linking scientific research and policy formulation is required to achieve regional standards. Trans-boundary air pollution cause an adverse impact on human health, food and water security, climate ,economy and national development goals and several global development goals such as the sustainable development goals(SDGs) within both countries as well as regional countries.

III. CONCLUSION

Transboundary air pollution is a complex problem. Therefore ,reducing air pollution will require a multitude of commitments and carefully planned actions by a team of scientists, engineers, policy makers and decision makers, politicians, embassies, non-governmental organisations, private sector and committed citizenry at various levels, from government to households and local communities to individuals. It should be integrated into the relevant environment policies, climate change policies, energy policies including alternative energy policies, urban development policies, public health policies, national development policies and goals, as well as with India and Nepal International Commitments such as Paris Agreement on climate change and the Sustainable Development Goals(SDGs). Yet trans-boundary air pollution policies within both countries are not met required standards to overcome the issue, proper regional cooperation is required. The Male Declaration on Control and Prevention of Air Pollution and its likely trans-boundary effects for South Asia is the first regional environment in South Asia to tackle trans-border air pollution through regional cooperation. It would be difficult to control trans-border sources of air pollution, the priority would be to control pollution sources within the countries of South Asia.

The Malé Declaration (MD) was adopted in 1998 and the baseline data continue to be collected, a number of limitations are noticeable in the Declaration's framework. These gaps and omissions occurred due to poor negotiating process. Fuel consumption, industrial emissions and net vehicle operation have been increased in the SAARC region recently. But the Male Declaration is in a slow progress.

The consistent flow of meetings and activities under Male Declaration should be built upon to share existing knowledge. The intergovernmental forum, successful in its regularity serves is required to elevate the profile of the networks efforts. Stakeholder participation forums are

also required and involvement of knowledge sharing among state and non-state stakeholders are required. Training activities need to be improved but how institutional capacity and capability to retain learning has progressed is questionable, with staff turnover and attrition. It was identified that monitoring stations are located in rural areas to avoid the focused and concentrated impacts of urban pollution. However, while progress has been made in areas such as fuel emissions reductions and technology introduction. Male Declarations should be implement a policy framework for relevant institutions. The ministries of environment and forestry in the smaller member states are try to form an inter-governmental coalition around the issue of air pollution and Transboundary effects in South Asia.

An institutional omission is the lack of assignment of responsibility of national measures and institutions that are engaged in the task of controlling and abating such pollution. While the state ministries may not be able to point to their adjacent ministries and agencies, non-government stakeholders should be aware of and point to the responsible bodies that should be empowered and engaged to take the pollution abatement forward either through regulatory control or market based instruments and incentives.

The elements of technology should be included into the policy agenda for transboundary pollution control forward. There is a need to focus on technology sharing and solution development, along with regulatory control. Knowledge sharing and best practice mechanisms and institutional arrangements need to be defined and outlined in more detail for administrative bodies at the national levels to follow. More space is required to assessing, studying, strategizing, allocating resources, economic mobilization and network development

Also implementing and responsible agency in the state needs to be assigned and empowered with responsibility Developing initiatives and working in cooperation to monitor specific emissions and concentrations/levels is in progress but accountable bodies need to be identified. The commitment to national reporting systems, consultation, protocols and institutional structures are all made, but at such a point, it should be identified which agencies are best positioned to carry out and manage the commitments that have been made.

The declaration text and content reflects a good advocacy and awareness campaign protocol. In the inter-governmental forum, the focal points are outlined for each meeting as involving multilateral institutions as well as international non-governmental agencies and national authorities.

The focal points for the national level are merely contacts from the Ministry of Environment and Forests, with

natural resources, energy, water and science and technology such as Nepal It is important for the Male Declaration to have more effective links with all the relevant ministries. Inter-governmental partnerships between ministries of economic development, industries and commerce to ensure that all of the necessary growth concerned cells are in partnership with one other. Also the ministries of environment should have initially included the interests of the ministries of health as well as other inter-governmental colleagues. Air pollution mitigation measures are available. They are currently in use in different regions around the world. The fast and large-scale implementation of these proven emission reduction measures would result in immediate and substantial multiple benefits such as save lives, increase crop yields, protect climate, and improve socioeconomic conditions. However, many key challenges still remain with such widespread interventions. We need to identify solutions grounded in sound science and carefully examined local specifics so that they are the best local options to ensure cleaner air. Therefore, scaling up clean air solutions would require substantial strategic investments, such as an innovative combination of existing policies, new policies, off-the-shelf available existing technologies, new technologies, resources (human, financial, institutional etc.), non-technological measures, including individual and collective behaviour change to choosing less polluting options, and most of all coordination and cooperation among government agencies, development partners, private entrepreneurs, non-governmental organizations, and the general public.

SAARC has organized different summits since 1987 focusing on climate change and natural disasters. The SAARC Environment Action Plan was adopted by the 3rd Meeting of the SAARC Environment Ministers (Malé, 15-16 October 1997). This action plan identified some of the key concerns of Member States and set out the parameters and modalities for regional cooperation. The action plan was based over the fundamental principles of causes and consequences of natural disasters, protection and preservation of environment and greenhouse effect and its impact on the region. A number of measures outlined in the SAARC Environment Action Plan have been reportedly implemented.

While SAARC has been in function for about 35 years now, the impact of its framework, especially with regard to air pollution reduction and control is yet to be seen. SAARC needs to be strengthened with a monitoring and evaluation mechanism to observe whether the member countries are making progress in reducing air pollution and minimizing its associated impacts in the South Asia region.

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