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## **FACING CLIMATE CHANGE CHALLENGES IN SOUTH ASIA: THE ROLE OF SAARC**

### **Abstract**

Global climate change in recent years has turned into a complex phenomenon. The issue has drawn widespread attention globally. South Asia is a region which occupies about 5 percent of the world's total landmass and 20 percent of the world's total population which is expected to rise about 25 percent by 2025. Over the years, South Asian countries are becoming affected with multitude of climate related hazards including cyclones, floods, droughts, extreme temperatures, glacial lake outburst floods (GLOFs) and storm surges. Climate does not maintain national boundary, therefore, combined efforts are essential to mitigate such calamities. Regional arrangements are considered essential to face climate change challenges. This paper examines initiatives of South Asian Association for Regional Cooperation (SAARC) on climate change issue and tries to recommend what further steps the organisation can adopt in this regard. Although SAARC has taken some initiatives, more concrete and coordinated actions are necessary to face the calamities of climate change.

### **1. Introduction**

Climate change is neither an ancient phenomenon nor of the distant future. There is scientific consensus that the earth is warming up and climate change is happening everywhere.<sup>1</sup> Climate change is one of the greatest threats the world is facing today. Although the issue is a global phenomenon, the impacts of it will not be felt in equal proportion across the world. It is irrefutable the impacts are likely to differ in both magnitude and rate of changes in different continents, countries and regions.<sup>2</sup>

South Asian countries are facing negative impacts of climate change on their lives and livelihoods. They are facing multiple climate induced hazards like floods, droughts, cyclones, extreme temperatures, glacial lake outburst floods (GLOF) and others. The fourth report of the Intergovernmental Panel on Climate Change (IPCC) and first assessment report of Indian Network of Climate Change Assessment (INCCA) confirm that climate change is likely to increase the frequency and intensity of climate related hazards and also the emergence of new catastrophes that could

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<sup>1</sup> Anup Shah, "Climate Change and Global Warming", *Global Issues*, 19 January 2014, available at <http://www.globalissues.org/issue/178/climate-change-and-global-warming>, accessed on 24 August 2014.

<sup>2</sup> "Climate Change Impacts on Global Issues", United States Environment Protection Agency (EPA), available at <http://www.epa.gov/climatechange/impacts-adaptation/international.html>, accessed on 14 September 2014.

manifest in the form of sea level rise and new vulnerabilities with various spatial and socio-economic impacts on communities.<sup>3</sup> Such natural disasters may have profound impacts on coastal areas, hydrological cycle, glaciers or mountain areas, water areas, forest and ecosystem and it would be disastrous for the people of South Asia. Thus, climate change is not merely an environmental phenomenon rather one with severe socio-economic implications.<sup>4</sup> As the countries face similar types of threats emanating from climate change, combined action is necessary to face such challenges. Being a regional entity, South Asian Association for Regional Cooperation (SAARC) is expected to play an important role in mitigating negative impacts of climate change in the region.

In this respect, the main objectives of the paper are to assess impacts of climate change in SAARC member states and to evaluate the contribution of SAARC to face climatic calamities.

To address the above mentioned issues, the paper is divided into five sections including introduction. Section two discusses impact of climate change in South Asia. Section three focuses the initiative taken by SAARC on the issue of climate change. Section four makes an appraisal. Section five ends with conclusion.

## 2. Climate Change and South Asia

Climate change has emerged as one of the most threatening issues for global society with serious implications for environment, food and human security to billions of people in developing and underdeveloped countries of the world. It is likely that climate change will impinge on sustainable development of most developing countries of Asia as it compounds the pressures on natural resources and the environment associated with rapid urbanisation, industrialisation and economic development.<sup>5</sup> The IPCC Assessment Report 5 (AR5) reveals climate change related vulnerabilities in South Asia. Besides, seasonal mean rainfall shows inter-decadal variability, noticeably a declining trend with more frequent deficit monsoons under regional heterogeneities.<sup>6</sup>

In South Asia, glaciers of the Himalayas have the largest storage of ice outside the polar region. The reserve is the source of some of the world's biggest rivers; in fact, the icebergs covering the Himalayan-Hindukush mountain ranges are the source of

<sup>3</sup> Swati Chandra, "BHU Scholars to Study Climate Changes in SAARC Countries", *The Times of India*, 6 June 2013.

<sup>4</sup> The World Bank, "South Asia & Climate Change a Development and Environmental Issue", available at <http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/SOUTHASIAEXT/0,contentMDK:21469804~menuPK:2246552~pagePK:2865106~piPK:2865128~theSitePK:223547,00.html>, accessed on 3 September 2014.

<sup>5</sup> Intergovernmental Panel on Climate Change (IPCC), *Fifth Assessment Report of the IPCC, Asia Chapter*, Cambridge: Cambridge University Press, 31 March 2014.

<sup>6</sup> *Ibid.*

nine largest rivers of Asia. In the rainy seasons, these glacial melts, coupled with heavy rain, may cause flood which might hamper the lives and livelihoods of the people of the region. About 600 million South Asians are subsisting on less than US\$1.25 a day.<sup>7</sup> Even a small climate related hazard can cause irreversible damage for a large number of people. The region also suffers from a large number of natural disasters. From 1990 to 2008, more than 750 million people were affected by natural disasters which caused death of about 60,000 people and about US\$45 billion in damages.<sup>8</sup>

It is evident that the SAARC member states are facing severe consequences of global climate change. In May 2011, the then SAARC Secretary General mentioned that over the past forty years, South Asian countries faced as many as 1,333 disasters that killed 980,000 people, affected 2.4 billion lives and damaged assets worth US\$105 billion.<sup>9</sup> It is expected by member states that SAARC will work collaboratively on this issue as poor, hot and largely agrarian South Asian region will severely suffer mainly due to rise of cumulative temperatures.

The low-lying areas of South Asia or large deltas and coastal areas of the region could be inundated by sea level rise. Various projections refer that climate variations among the SAARC countries will be varied and heterogeneous with some countries experiencing more intense precipitation and increased flood risks while others encounter sparser amount of rainfalls and droughts.

Among the members of SAARC, Bangladesh ranks first to face the vulnerabilities of global climate change.<sup>10</sup> The people of the country are facing impacts of climate change at a regular interval. Climate change has affected the agriculture of the country that forced people to migrate from rural to urban areas.<sup>11</sup> Cyclone 'Aila' hit Bangladesh in 2009 which forced 200,000 people of Southwestern part to migrate from homes and the damage totaled US\$269.28 million.<sup>12</sup> In fact, almost every year, people of Bangladesh are affected by extreme events like floods, droughts and cyclones. Under the current trends of climate change, per capita water availability

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<sup>7</sup> Ejaz Ghani, "The Poor Half Billion: What is Holding Back Lagging Regions in South Asia?", The Center for Economic and Policy Research's Portal, 28 October 2010.

<sup>8</sup> The World Bank, "Kathmandu to Copenhagen: A Regional Climate Change Conference", 31 August 2009.

<sup>9</sup> Cited in Suman Sharma, "Existential Threat to Human Security in South Asia and Regional Response: A Case Study of Climate Change and SAARC Initiatives", World International Studies Committee, July 2011, available at <http://www.wiscnetwork.org/porto2011/getpaper.php?id=573>, accessed on 12 December 2014.

<sup>10</sup> David Braun, "Bangladesh, India Most Threatened by Climate Change, Risk Study Finds", *National Geographic*, 20 October 2010.

<sup>11</sup> "Scoping Assessment on Climate Change Adaptation in Bangladesh", Regional Adaptation Knowledge Platform for Asia, October 2010, Adaptation knowledge Platform, available at [http://www.climateadapt.asia/upload/publications/files/4d81c35109ddfScoping\\_Assessment\\_on\\_Climate\\_Change\\_Adaptation\\_in\\_Bangladesh.pdf](http://www.climateadapt.asia/upload/publications/files/4d81c35109ddfScoping_Assessment_on_Climate_Change_Adaptation_in_Bangladesh.pdf), accessed on 15 December 2014.

<sup>12</sup> "Cyclone Aila Losses in Bangladesh Estimated at 269 mln USD," *Relief Web*, 22 June 2009, available at <http://reliefweb.int/report/bangladesh/cyclone-aila-losses-bangladesh-estimated-269-mln-usd>, accessed on 3 September, 2014.

in 2025 will become 7,670 cubic metres against 12,162 cubic metres in 1991.<sup>13</sup> Such reduction will affect the huge population of Bangladesh during the dry season while the current availability is already very low in the country.<sup>14</sup> The Southwestern part of the country is affected by salinity problem. The reduced flow of Ganges water during the dry season has exacerbated the process. Erosion in coastal areas of Bangladesh is another issue of concern.<sup>15</sup> In addition, there is concern that reduction of melted water in the Brahmaputra Basin will further reduce river water for irrigation. In coastal areas, it is likely that sea level rise will increase the salinity of groundwater.<sup>16</sup> Such complex changes will have adverse impacts on the agricultural system and food production of the country.

India is also one of the major victims of climate change. By one estimate, climate change will cause a 30-40 percent drop in India's agricultural output by 2080.<sup>17</sup> It is projected that under the scenario of 2.5°C to 4.9°C temperature rise, rice yields will drop by 32-40 percent and wheat yields by 41-52 percent and this would cause Gross Domestic Product (GDP) to fall by 1.8-3.4 percent.<sup>18</sup> A World Bank study reveals that about 700 million people of India will be forced to migrate from rural to urban areas due to the adverse impact of climate change on agriculture.<sup>19</sup> Climate change may cause a rise of up to 4°C in surface air temperature by 2100 and a rising number of extreme weather events, such as droughts, floods and cyclones in India.<sup>20</sup> Furthermore, anomalies in global climate pattern pose serious threat to the urban water supply of India. According to IPCC, by the year 2030, Himalayan glaciers will shrink from 500,000 km<sup>2</sup> to 100,000 km<sup>2</sup> affecting north Indian rivers where 50 percent of water comes from snow melt.<sup>21</sup>

Pakistan has an area of over 88 million hectares which includes a variety of landscape ranging from high mountain ranges to stark deserts. The Indus River and its tributaries dissect the country, providing a source of the world's largest contiguous irrigation network. However, in spite of this positive attribute, the country is also affected by climate change. It could make the country more vulnerable to natural

<sup>13</sup> Ahsan Uddin Ahmed, "Bangladesh Climate Change Impacts and Vulnerability", *Climate Change Cell*, Dhaka, Department of Environment, Government of Bangladesh, 2006, p. 13.

<sup>14</sup> *Ibid.*

<sup>15</sup> Anwar Ali, "Climate Change Impacts and Adaptation Assessment in Bangladesh", *Climate Research*, Vol. 12, Dhaka, 1999.

<sup>16</sup> Peter Davis, "Exploring Local Perceptions of Climate Change Impact and Adaptation in Rural Bangladesh", International Food Policy Research Institute, February 2014.

<sup>17</sup> "SAARC Chasm South Asia Discusses Regional Friendship", *The Economist*, 30 July 2008.

<sup>18</sup> Anupam Khajuria and N.H. Ravindranath, "Climate Change in Context of the Indian Agricultural Sector", *Journal of Earth Science and Climatic Change*, Vol. 3, Issue 1, 2012.

<sup>19</sup> "SAARC Summit Should Address Climate Change Issue", *Times of Assam*, 9 November 2011.

<sup>20</sup> "Climate Change Adaptation in Rural Areas of India", *Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)*, available at <http://www.giz.de/en/worldwide/16603.html>, accessed on 14 September 2014.

<sup>21</sup> K. Shadananan Nair, "An Assessment Of The Impact Of Climate Change On The Megacities Of India And Of The Current Policies And Strategies To Meet Associated Challenges", Fifth Urban Research Symposium, 2009, available at <http://siteresources.worldbank.org/INTURBANDEVELOPMENT/Resources/336387-1256566800920/6505269-1268260567624/Nair.pdf>, accessed on 15 September 2014.

disasters. This phenomenon in Pakistan is expected to increase glacial melt, sea level rise along its coast and increase periods without precipitation. Its diverse geography exposes it to a large number of hazards and the highly dense population that resides in disaster prone areas makes the country vulnerable to adverse effects of natural calamities. Due to various climate related disasters in past 40 years, the total death toll exceeds 90,000 and total recorded losses from disaster amounted to US\$20 billion, including the US\$10 billion losses caused by the 2010 flood.<sup>22</sup> According to a study, by 2020, the temperature in Pakistan is expected to increase by 0.9°C doubling to 1.8°C by 2050. Scenarios for sea level rise include 20 cm by 2020 and 30 cm by 2050.<sup>23</sup> In Pakistan, potentially huge and rapid reductions in Indus' flows, coupled with intensified droughts and sea level rise, will require major livelihood transitions and economic transformation with consequent risks of social upheaval.<sup>24</sup>

Sri Lanka is also vulnerable to the effects of global climate change as major parts of Jaffna and other northern areas of Sri Lanka will be submerged when the sea level will rise.<sup>25</sup> Climate change will bring dire consequences for the country for water, agriculture, health and coastal regions. As there are early signs of impacts, there are strong possibilities to reach serious proportions by 2025.<sup>26</sup> Therefore, any adverse changes in already volatile weather patterns are likely to impact on the socio-economic activities of the country.<sup>27</sup> In case of climate change, Sri Lanka might experience widespread effects, including climate variability and sea level rise, directly affecting the overall abundance and security of endemic species within the country.

Along with Bangladesh, Maldives is also at a high stake of global climatic change. The country consists of about 1,200 islands on the Indian Ocean. Asian Development Bank Economic Report for South Asia revealed that if the climate change would not be checked, Maldives would face losses of over 12 percent of its GDP by the end of this century and 1 metre sea level rise would inundate 66 percent of the archipelago's land area which would affect tourism industry, the lifeline of the country's economy.<sup>28</sup> The natural beauty and tourism industry of Maldives is mainly centred on its beautiful sea beach which represents 5 percent of the country's total land area. It is to be noted that more than 97 percent inhabitants of islands reported beach erosion in 2004, of which 64 percent reported severe erosion and more than 45

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<sup>22</sup> "Disaster Risk Management in South Asia: A Regional Overview", *op.cit.*

<sup>23</sup> Karen O'Brien, "Developing Strategies for Climate Change: The UNEP Country Studies on Climate Change Impacts and Adaptation Assessment", *Cicero Report*, University of Oslo, July 2010.

<sup>24</sup> "Kathmandu to Copenhagen: A Regional Climate Change Conference", *op.cit.*

<sup>25</sup> Florita Gunasekara, "Climate Change and Ethnic Conflict in North East Sri Lanka", *ICE Case Studies*, No.241, July 2011.

<sup>26</sup> "Comment: SAARC Summit Should Make a Bridge to Face Climate Change", *ReliefWeb*, 10 November 2011.

<sup>27</sup> "Preamble of the National Climate Change Policy of Sri Lanka", available at [http://www.preventionweb.net/files/28587\\_climatechangeenglish.pdf](http://www.preventionweb.net/files/28587_climatechangeenglish.pdf), accessed on 26 October 2014.

<sup>28</sup> Asian Development Bank (ADB), "Maldives Most At-Risk Economy in South Asia from Climate Change-Report", 19 August 2014, available at <http://www.adb.org/news/maldives-most-risk-economy-south-asia-climate-change-report>, accessed on 11 September 2014.

percent of the country's 87 tourist resorts have also reported about severe erosion.<sup>29</sup> In the long run, climate change will threaten the entire country's existence. The highest point of the country is 8 feet above sea level.<sup>30</sup> Therefore, the country will be severely affected by global sea level rise. Along with rising sea levels, increased beach erosion, more powerful storms, higher storm surges and threats to biodiversity are among the major threats to the Maldives due to climate change over the coming decades.<sup>31</sup>

Nepal is a country of diverse climatic conditions, ranging from tropical in the south to alpine in the north. The country is facing problems like drought and flooding and there are possibilities that these will be magnified by climate change in future. In 1999, Shrestha *et.al.*, suggested that temperatures were increasing in Nepal and rainfall was becoming more variable. A decade later, in 2009, a modeling exercise conducted by a team of Nepali, American, British, Pakistani and Bangladeshi experts using the emissions scenarios in the IPCC's special report (2007), found that the temperature would indeed increase in the mid-hills and the region was likely to grow more arid in non-monsoon seasons. It also suggested that precipitation was likely to be more uncertain and that storm intensity would increase.<sup>32</sup>

Another small country of South Asia, Bhutan straddles between two major biogeographic realms, the Indo-Malayan and Palearctic and is part of the Eastern Himalayan region which contains part of three global biodiversity hotspots, 60 ecoregions, 330 bird areas, 53 important plant areas, a large number of wetlands and 29 Ramsar sites. Bhutan is a country of diverse array of flora and fauna including 5,603 species of vascular plants, 400 lichens, 200 mammals and about 700 birds.<sup>33</sup> In future, climate change is likely to affect Bhutan in various ways e.g., changes in hydrological cycles like lower winter in streams and intense monsoon rains may affect present level of drinking water of the country. As 80 percent of Bhutanese practice subsistence farming, climate change can cause changes in temperature which will increase the vulnerability of a large group of this population.<sup>34</sup> In addition, climate change will affect forests, biodiversity as well as human health badly with increasing number of natural disasters.

<sup>29</sup> "National Adaptation to Climate Changes," Ministry of Housing, Transport and Environment of the Maldives, *Background Paper*, available at [http://www.ifrc.org/docs/IDRL/Nationalpercent20Adaptationpercent20Programmepercent20\(Climatepercent20change\)\)/MALDIVESpercent20Adaptationpercent20topercent20Climatepercent20Change.pdf](http://www.ifrc.org/docs/IDRL/Nationalpercent20Adaptationpercent20Programmepercent20(Climatepercent20change))/MALDIVESpercent20Adaptationpercent20topercent20Climatepercent20Change.pdf), accessed on 11 September 2014.

<sup>30</sup> Justin Hoffmann, "The Maldives and Rising Sea Levels", *ICE Case Studies*, No.206, May 2007.

<sup>31</sup> Intergovernmental Panel on Climate Change, *Third Assessment Report: Climate Change 2001*, Chapter 17: Small Island States, Executive Summary, Cambridge: Cambridge University Press 2001.

<sup>32</sup> S Solomon (ed.), "Climate Change 2007: the physical science basis", *Contribution of Working Group 1 to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, Cambridge: Cambridge University Press, 2007, pp. 1-996.

<sup>33</sup> "National Action Plan Biodiversity Perspective and Climate Change Bhutan", *Climate Change for a Living Himalayas*, Bhutan, 2011, available at [http://www.nbc.gov.bt/40wp-content/uploads/2010/06/National-Paper-on-Biodiversity-and-Climate-Change-\\_Bhutan1.pdf](http://www.nbc.gov.bt/40wp-content/uploads/2010/06/National-Paper-on-Biodiversity-and-Climate-Change-_Bhutan1.pdf), accessed on 24 December 2014.

<sup>34</sup> "Climate Change Impacts and Adaptation in Bhutan", National Environment Commission/Hydro-met Services Division, Department of Energy, Ministry of Economic Affairs, Thimphu, Bhutan, available at [http://www.editoria.u-tokyo.ac.jp/projects/awci/6th/GEOSS-AP\\_bali\\_100311/pdf/D2\\_WG-2\\_S3/D2\\_WG-2\\_S3-3\\_KARMA\\_Bali\\_Bhutan\\_Presentation.pdf](http://www.editoria.u-tokyo.ac.jp/projects/awci/6th/GEOSS-AP_bali_100311/pdf/D2_WG-2_S3/D2_WG-2_S3-3_KARMA_Bali_Bhutan_Presentation.pdf), accessed on 24 December 2014.

Afghanistan is the last country to join SAARC in 2007. The country is mountainous and very dry which is located in the arid subtropics at 9-37° north of the equator. It has an arid and semi-arid continental climate with cold winters and hot summers. Due to climate change, Afghanistan is currently suffering from droughts. Available data and trends from neighbouring countries indicate that mean annual temperature has increased by 0.6 °c since 1960, at an average rate of around 0.13 °c per year.<sup>35</sup>

According to the IPCC report,<sup>36</sup> people living in developing countries in low altitudes, particularly those along the coast of Asia will suffer the most. The scientists who prepared the draft report also mentioned that hundreds of millions of people would be affected by coastal flooding and land loss due to global temperature rise, ice caps melt and sea level rise. The majority of it would be in East, Southeast and South Asia. Some small island states are expected to face very high impacts. Hence, countries like Bangladesh and Maldives have possibilities to become worst sufferers. The consequences of climate change will be drastic for the region as about 70 percent of South Asians lives in rural areas and account for about 75 percent of the poor, who are the most impacted segments by climate change.<sup>37</sup>

Due to geographical contiguity, the countries of South Asia have to face common problems and the problems of one country have spillover impacts for other countries. The countries need an integrated effort to face the common calamity of climate change.

### 3. SAARC on Climate Change

The IPCC AR5 emphasised on regional effort to address climate change challenges.<sup>38</sup> As a regional entity, SAARC needs to take necessary steps to address climate change calamities in South Asia. SAARC has given a platform for its member countries to work in a body on climate change issue. In this regard, motivating aspects of such cooperation would be common experiences of facing climate change and geographical proximity.

Since 1987, heads of states of SAARC member states at successive summits have been reiterating the need to strengthen regional cooperation to preserve, protect and manage the diverse and fragile ecosystems of the region including

<sup>35</sup> Matthew Savage, Dr. Bill Dougherty, Dr. Mohammed Hamza, Dr. Ruth Butterfield, Dr. Sukaina Bharwani, "Socio-Economic Impacts of Climate Change in Afghanistan", available at [http://www.nesci.edu/afghanistan/pdf\\_data\\_2007447\\_Afghancc\\_Exs\\_09Mar09.pdf](http://www.nesci.edu/afghanistan/pdf_data_2007447_Afghancc_Exs_09Mar09.pdf), accessed on 20 February 2015.

<sup>36</sup> IPCC, "Climate Change 2014: Impacts, Adaptation, and Vulnerability-Summary for Policymakers", 2014.

<sup>37</sup> "Climate Change Impacts-South Asia", *The Global Mechanism*, available at <http://www.ifad.org/events/apr09/impact/south.pdf>, accessed on 27 October 2014.

<sup>38</sup> Y., E. Lin, J. J. Pereira, R.T. Corlett, X. Cui, G.E. Insarov, R.D. Lasco, E. Lindgren and A. Surjan, *Climate Change 2014: Impacts, Adaptation and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, Cambridge: Cambridge University Press, 2014, p.1352.

the need to address the challenges posed by climate change and natural disasters.<sup>39</sup> During the third summit of 1987, SAARC adopted “Regional Study on the Causes and Consequences of Natural Disasters” and the “Protection and Preservation of the Environment”. In the next summit (Islamabad 1988), participants decided to undertake a joint study on “greenhouse effects and its impact on the region”. The study was aimed to provide a basis for an action plan for meaningful cooperation among member states and that was completed in 1992.<sup>40</sup> In the same year, a technical committee on environment was formed. Besides the high level meetings, SAARC environment ministers have met eight times since 1992 and they had another two meetings in the aftermath of Indian Ocean Tsunami in May 2005 and a SAARC Ministerial Meeting in Dhaka in 2008.

In addition, in recent years SAARC has taken into account the climate change issue in agenda. It can be mentioned that climate change was the theme of the 16<sup>th</sup> SAARC Summit and the heads of the states of SAARC members adopted the “Thimphu Statement on Climate Change”. The 15<sup>th</sup> SAARC Summit Declaration, held from 2-3 August 2008, Colombo, Sri Lanka, concluded with the adoption of the Colombo Declaration and the Colombo Statement on Climate Change and Food Security.<sup>41</sup> In the declaration titled “Partnership for Growth for Our People”, the heads of the states of SAARC members reiterated the need for concerted efforts on combating climate change.

**Table 1: The initiatives of the heads of the governments in the high level meetings**

SAARC Summit	Time and Venue	Action
3 <sup>rd</sup> SAARC Summit	1987, Kathmandu	Member states adopted “Regional Study on the Causes and Consequences of Natural Disasters and the Protection and Preservation of the Environment”.
4 <sup>th</sup> SAARC Summit	1988, Islamabad	Participants decided to undertake a joint study on the “Greenhouse Effects and its impact on the Region.”
14 <sup>th</sup> SAARC Summit	2007, New Delhi	Participants expressed ‘deep concern’ over the global climate change and called for pursuing a climate resilient development in South Asia.
15 <sup>th</sup> SAARC Summit	2008, Colombo	The organisation made “Colombo Declaration and the Colombo Statement on Climate Change and Food Security”.

<sup>39</sup> “Areas of Cooperation”, SAARC, available at [http://saarc-sec.org/areaofcooperation/cat-detail.php?cat\\_id=54](http://saarc-sec.org/areaofcooperation/cat-detail.php?cat_id=54), accessed on 27 August 2014.

<sup>40</sup> *Ibid.*

<sup>41</sup> “Fifteenth SAARC Summit Declaration Addresses Climate Change and Food Security”, Climate Change Policy and Practice, 3 August 2008, available at <http://climate-liisd.org/news/fifteenth-saarc-summit-declaration-addresses-climate-change-and-food-security/>, accessed on 5 February 2015.



16 <sup>th</sup> SAARC Summit	2010, Thimphu	Climate Change was the theme of the summit and heads of the governments adopted the Thimphu Statement on Climate Change. The Inter-governmental Expert Group on Climate Change (IGEG CC), established by the Thimphu Statement. SAARC Convention on Cooperation on Environment was also signed by the Ministers of Foreign/External Affairs of Member States during the Sixteenth SAARC Summit.
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Apart from the above mentioned initiatives, the 1997 SAARC Environment Action Plan, the Dhaka Declaration and the Comprehensive Framework on Disaster Management (2006-2015) are important steps of SAARC in addressing climate change Issue.

The 16<sup>th</sup> SAARC Summit was the most important one in which SAARC expressed its commitment to work on climate change. In the Thimphu Statement on Climate Change, heads of states expressed deep concern about the adverse effects of climate change and its impact on the region, particularly on the lives and livelihoods of the 1.6 billion people of South Asia.<sup>42</sup> The countries agreed to undertake 16 vital steps. Among those, some important agreements are - to establish an Inter-governmental Expert Group on Climate Change to develop clear policy direction and guidance for regional cooperation as envisaged in the SAARC Plan of Action on Climate Change; plant ten million trees over the next five years (2010-2015) as part of a regional afforestation and reforestation campaign, in accordance with national priorities and programmes of member states; evolve national plans and where appropriate regional projects, on protecting and safeguarding the archaeological and historical infrastructure of South Asia from adverse effects of climate change; commission a SAARC Inter-governmental Climate-related Disasters Initiative on the integration of Climate Change Adaptation (CCA) with Disaster Risk Reduction (DRR) to be supported by SAARC Disaster Management Center.<sup>43</sup>

Hence, some key instruments of SAARC on climate change and their implementation status<sup>44</sup> are given below:

a. The SAARC Environment Action Plan was adopted by the Third Meeting of SAARC Environment Ministers.

b. A Comprehensive Framework on Disaster Management 2006-2015 was adopted in 2006 to address the specific needs of disaster risk reduction and management in South Asia. Till 2014, member states were in the process of preparing

<sup>42</sup> *Ibid.*

<sup>43</sup> *Ibid.*

<sup>44</sup> "Areas of Cooperation", *op.cit.*

their respective National Plans of Action for implementation of the Regional Framework and then an Expert Group Meeting would harmonise the national reports and articulate a Regional Plan of Action.

c. The Eighth Meeting of SAARC Environment Ministers adopted “the Delhi Statement on Cooperation in Environment (2009)” which identifies critical areas that need to be addressed and reaffirms the commitment of member states towards enhancing regional cooperation in the area of environment and climate change. However, any evidence about the implementation process is not mentionable.

d. The 16<sup>th</sup> SAARC Summit (Thimphu, 2010) adopted the “Thimphu Statement on Climate Change”, which outlines a number of initiatives<sup>45</sup> at the national and regional levels to strengthen and intensify regional cooperation. IGEGCC was established according to the Thimphu Statement.

e. “The SAARC Convention on Cooperation on Environment” was signed during the 16<sup>th</sup> Summit and after ratifying that entered into force on 23 October 2013.

f. “The SAARC Agreement on Rapid Response” was signed at the 17<sup>th</sup> Summit (Maldives, 2011) and will come into force after completion of ratification process by all member states.

SAARC countries also took common position in some multilateral meetings. In the Conference of the Parties 15(COP15) in Copenhagen, SAARC’s common position was presented by Sri Lanka as the SAARC Chair. After an Intergovernmental meeting held in Bhutan in August 2010, SAARC’s position for COP 16 was finalised and the common position of SAARC was presented at COP 16 by Bhutan. SAARC in previous years became able to extend cooperation with some intergovernmental entities. Among those initiatives, some are SAARC’s signing of several Memoranda of Understanding (MoU) with South Asia Cooperative Environment Programme (SACEP) in 2004, United Nations Environment Programme (UNEP) in 2007 and the United Nations International Strategy on Disaster Reduction (UNISDR) in 2008.<sup>46</sup> Over the years, SAARC has initiated disaster management training, food bank etc. These endeavours have created possibilities to reduce the disaster and climatic extreme events.

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<sup>45</sup> The initiatives of Thimphu Statement on Climate Change include review the Dhaka Declaration and SAARC Action Plan on climate change and ensure its timely implementation, agree to establish an Inter-governmental Expert Group on Climate Change, undertake advocacy and awareness programmes on climate change to promote the use of green technology and best practices to promote low-carbon sustainable and inclusive development of the region and establishing Institutional linkages among national institutions.

<sup>46</sup> *Ibid.*

#### 4. An Appraisal

Over the years, SAARC regional efforts in responding to the challenges of climate change are neither short on rhetoric nor on inaction.<sup>47</sup> However, there is a basic lack of political will both at global and regional levels.<sup>48</sup> Being a common platform for South Asian countries, SAARC owes a unique opportunity for bringing noteworthy changes in the lives of the South Asian people. Although, climate change issue has been in focus right from the 3<sup>rd</sup> SAARC Summit of 1987, there is not much tangible outcome on this issue.<sup>49</sup> There were different projects taken on climate change issue but implementation is very slow. For example, the recommendations of the regional study on greenhouse effect and its impact on the region, completed in 1993, have not yet been implemented. Moreover, no visible outputs are yet seen from the Coastal Zone Management Centre in Maldives (2005) and Forestry Centre in Bhutan (2008). Even the Dhaka Declaration and SAARC Plan of Action on Climate Change (2008) was not succeeded to portray SAARC as a single entity at Copenhagen.<sup>50</sup> It is also observed that the 18<sup>th</sup> SAARC Summit held in Kathmandu, Nepal in November 2014 also failed to bring any substantial outcome on climate change issue.<sup>51</sup>

It is evident that SAARC members often lack political consensus on important issues. In South Asia, conflicting national interests produced complex relationships which have long been existing between and among states. Despite the belief that environmental issues might be less controversial, consensus has still been limited and this lack of consensus has extended into climate change issues as well.<sup>52</sup> The lack of regional approach and its cost are generally paid by the lives of the general people of this region. The regional approach to disaster management and adaptation of a comprehensive road map to define resource allocation and policy guidelines are still not satisfactory for the South Asian people.

South Asia is a poverty infested region, where inhabitants are more vulnerable to climate change. Hence, any initiative related to climate change will have to support the poor people of this region and try to rapidly move them out of poverty. Enhancing their income will accelerate their purchasing power which in a larger regional context will work on poverty reduction and reducing climate vulnerabilities simultaneously. This will also work to reduce large scale internal migration from rural to urban areas.

It is seen that due to climate change, farmers become the worst sufferers. Therefore, SAARC should take special care on this issue. Although SAARC has initiated

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<sup>47</sup> Suman Sharma, *op.cit.*

<sup>48</sup> *Ibid.*

<sup>49</sup> "SAARC Must Get Serious on Climate Pact", *The Economic Times*, 4 May 2010.

<sup>50</sup> *Ibid.*

<sup>51</sup> "SAARC Summit Debriefing", *The Diplomat*, 2 December 2014.

<sup>52</sup> Michael H. Glantz, "The Role of Regional Organizations in the Context of Climate Change", *NATO ASI Series; Series 1 Global Environmental Change*, Vol.14, Germany: Springer Science & Business Media, 2013, p. 28.

some steps like the formation of SAARC Regional Agricultural Information Centre, disaster management training and food bank, these need functioning. Simultaneously, pragmatic steps should be taken to educate farmers with adaptive farming practices like low tillage or crop rotation. SAARC also should pay more attention on climate change research funding to mitigate the losses from climate change. Besides, SAARC should form a monitoring committee on climate change issue which will monitor updates about implementation of different agenda set by previous SAARC summits. The Secretary General of SAARC should be the key person to take necessary steps according to the reports of the committee.

SAARC's commitment to work on regional cooperation in some cases is not considered as successful. One of the examples may be the July-August 2010 devastating flood which hit Pakistan. The flood not only destroyed infrastructure in several areas but also affected a huge population of approximately 20 million people. Except for a pledge of a meagre US\$32 million by SAARC countries, there was virtually no action to help the member state. The incident happened only few months after (2010) the Silver Jubilee Climate Theme oriented SAARC Summit held at Thimphu, Bhutan.<sup>53</sup> In fact, SAARC over the years has become captive of bilateral contentious politics in South Asia. Member states have to play effective role in promoting the agenda of regional cooperation.<sup>54</sup>

There is an obvious political difficulty of suspicion and lack of trust amongst some key countries which work as obstacle in achieving regional perspective.<sup>55</sup> One common strategic constraint facing all South Asian countries in international collaboration on climate change is the collective action dilemma. All countries want to avoid a "sucker's payoff"<sup>56</sup> in the strategic game of climate change cooperation.<sup>57</sup>

South Asia is vulnerable to the impacts of climate change and this will significantly affect the human security in the region. Although SAARC has had the unique opportunity to handle the issue and over the years, it has initiated and made progresses, the governance structure of SAARC has restricted this regional entity from increasing potential regional cooperation in South Asia.<sup>58</sup> It is worth quoting from an Indian scholar Dr Suman Sharma, who opined that,

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<sup>53</sup> Suman Sharma, *op.cit.*

<sup>54</sup> *Ibid.*

<sup>55</sup> "The SAARC: A Bloc Whose Time Has Come", *The Diplomat*, 18 October 2014.

<sup>56</sup> Suckers payoff is a social dilemma which involve a conflict between a cooperative strategy, benefitting the group but potentially costly to the individual, and a defection strategy, detrimental to the group but benefiting the individual.

<sup>57</sup> "Asia's Response to Climate Change and Natural Disasters Implications for an Evolving Regional Architecture", *A Report of the CSIS Asian Regionalism Initiative*, Center for Strategic and International Studies, July 2010, available at [http://csis.org/files/publication/100708\\_Freeman\\_AσίαςResponse\\_WEB.pdf](http://csis.org/files/publication/100708_Freeman_AσίαςResponse_WEB.pdf), accessed on 22 December 2014.

<sup>58</sup> Dr. A. Atiq Rahman, "Regional Cooperation to Combat Climate Change", Bangladesh Centre for Advanced Studies, available at [http://www.bcas.net/article-full-desc.php?article\\_id=11](http://www.bcas.net/article-full-desc.php?article_id=11), accessed on 26 October 2014.

“The common position adopted by SAARC during global negotiations on climate change is no consolation for the poor record on responding to disasters and joint efforts at modifying policy and action to adapt to and mitigate the threat of climate change. India, in any case, has joined other groupings like Brazil, South Africa, India and China (BASIC) countries while indulging in bargaining on behalf of developing countries. The deliberations of Cancun conclave in 2010 have further eroded any significance of common regional positions at climate negotiations. The common SAARC posture in global climate sweepstakes, therefore, is more of an ornamental value aimed at deceiving regional population that SAARC is together in responding to the threats of climate change.”<sup>59</sup>

## 5. Conclusion

Climate change and its dire consequences e.g., increasing number of natural disasters and their threatening impacts can bring paradigm shifts on lives and livelihoods of South Asian people. As environmental causes go beyond national boundaries, regional collaborative approach is required to face such challenges. In the era of globalisation, collective efforts can accelerate the phase of national, regional and global development. Regional cooperation through regional organisations can become change makers for respective countries.

It is evident that SAARC nations are facing severe consequences of global climate change. Due to geographical contiguity, the South Asian countries face common problems and the problems of one country have spillover impact for other country. As the leading regional body, SAARC is expected to play an important role in mitigating negative impacts of climate change in South Asia. Although the issue has been in focus right from the 3<sup>rd</sup> SAARC summit of 1987, there is not much tangible outcome on this issue. There were different projects taken on climate change issue but implementation is very slow. Therefore, combined efforts are needed to mitigate the negative consequences of climate change emanated calamities.

In this regard, to address the climate change issue, SAARC should adopt a comprehensive road map to define resource allocation and policy guidelines based on integrated approach which will help decision makers, policymakers, scientists and academicians to act better in coming days. In the context of South Asia, all actors including central and local governments and their agencies, local and international NGOs, development partners, civil society and environment partners should move together in a coordinated way. As the countries have common experience of facing climate change, they should exchange more

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<sup>59</sup> Suman Sharma, *op.cit.*

information. Resource constraint is a big problem in South Asia; therefore, SAARC should put more emphasis on resource mobilisation to mitigate climate change impacts. As climate change related risks are high in this region, it is needed to respond proactively to build resilience through prevention and preparedness rather than through relief and responses.

The countries of South Asia need to view the problem through a regional lens to reduce the costs of climate change and work in a body coming out from narrow national interests. If they can work from a common platform and with a same tune, it is expected they can achieve desired goals.