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The State Failure: Pakistan's Climate Change Policies and Stances

[1] Aneel Salman
[2] Nedim Makarevic

[1] COMSATS Institute of Information Technology, Islamabad, Pakistan
E-mail: aneelsalman@yahoo.com
[2] Embassy of Bosnia and Herzegovina in Pakistan, Pakistan
E-mail: nmakarevic.science@gmail.com

Abstract

The paper undertakes a comparative analysis of the seminal policy documents produced by the Ministry of Environment[1], Government of Pakistan to gauge their impact and determine if they have the potential to seep down from merely being a government-level agenda to grassroots-level contextualization. Drawing upon the Initial National Communication on Climate Change (2003) as the first government document on Climate Change, the paper seeks to establish the progression route taken from this till the Climate Change report of the Task Force on CC (2010); and subsequently the Climate Change Policy (2011). The study finds that the implementation and policy gaps in these documents are a subset of the financial, administrative/capacity gaps, and that there is a critical need to investigate these gaps further at the local level and finding innovative ways of bridging them by understanding the nature of constraints in a more comprehensive manner. In conclusion, we argue that given the lack of actual data, available data manipulations, lack of long term scenario building and well thought out implementation frameworks and baseline research, Pakistan has a long way to go in even understanding its climate change problems (if any) and its impacts on the lives of local communities and citizenry. A different way of targeting the Climate Change question should be done based on real time baseline field research and analysis, rather than just number crunching and rehashing statistics based on NGO and donor project reports and outdated government documents.

Keywords: climate change policy, Pakistan, government documents.

Introduction

Climate change is one of the most complex issues facing business, governments, and society at large (TCFD, 2016). Pakistan became a signatory to the United Nations' Framework Convention on Climate Change (UNFCCC) on the 13 June 1992 at the Earth Summit in Rio De Janeiro going on to ratify the Convention on 1 June 1994, becoming legally binding on the 30 August 1994. Pakistan undertook several studies during the 1990s aimed at gauging the effects of climate change, including:

- Climate Change in Asia: Regional study to global environmental issues (1992–1994).
- Asia least cost GHG Abatement Strategy (ALGAS) (1994–1998).
- Country case study on climate change impacts and adaptation assessment (1996–1998)

[1] Renamed the Ministry of Climate Change during the writing of this paper. The Ministry is referred to as the Ministry of Enviornment (MoE) in this paper to avoid textual ambiguities.

• Prompt start measures for the implementation of the UNFCCC – support for the country study of Pakistan: Inventory Study (1995–1995)

Climate change together with bio-diversity should not be treated in isolation from the general economic, social and environmental systems and must be dealt with in the context of sustainable development (Asian Development Bank, 2009).

Discussion

1.1 Initial National Communication (2003)

Article 4 and 12 of the UNFCCC requires all non-annex-I countries to prepare and submit Initial National Communications (INC-2003) detailing GHG inventories. A High-powered Project Steering Committee (PSC) chaired by the Secretary, Ministry of Environment and comprising government and private sector experts in climate change held six meeting and four workshops and finally released Pakistan's INC on the 3 June 2003. Pakistan's INC is a 92-page document detailing the national GHG inventories for the period July 1993 – June 1994. The report contains GHG inventory figures as well as sector-wise impact in climate change focusing on water, agriculture, forests, coastal zones, cyclones, lives stock and biodiversity. Pakistan's INC also examined mitigation and adaptation options, financial and technological needs as well as highlighting new avenues for research. The report also projected anthropogenic GHG emissions by source and sinks with the aim of returning them to the 1990 levels individually or jointly.

1.2 The Task Force Report on Climate Change (2010)

The Planning Commission of Pakistan set up a "Task Force on Climate Change" (TFCC) in October 2008. The TFCC was commissioned to give views and recommendations on safeguarding resources such as food, water and energy. The principal task assigned was the formulation of a climate change policy to help the government pursue the goal of sustainable economic growth in the light of the challenges posed by climate change. The Task Force set up nine working groups and after extensive deliberations among the Task Force members, the Task Force on Climate Change (TFCC) Final Report was presented in February 2010. The report is a seminal document with detailed vulnerability assessments of various socio-economic sectors due to climate change including recommendations on adaptation, mitigation, capacity building and international cooperation measures. The Task Force report of Climate Change serves as a preamble to the hitherto unreleased Climate Change Policy 2011.

2 Key Variables Assessed

2.1 Introductions

The introductory variables of the INC 2003 report and the eight sub variables defined include "land area, water resources, agriculture, forestry, livestock, biodiversity, energy and socio economic conditions etc." of Pakistan whereas "scenario of climate change both globally and in Pakistan and the impact of climate change on the various sectors of Pakistan" formed the introductory sub variables of 2010 task force report.

2.2 Objectives

The second variable of the TFCC report highlighted the objectives which seem to be completely absent in the INC 2003, while well defined in TFCC 2010 report:

"….sustained economic growth, low carbon economy, ensuring water, food and energy security, minimize intensity and frequency of extreme events, protection providence to population, increase forest cover, new developments in science and technology, role of EIA in climate change impact assessment, clean development mechanism, role of institutions to address climate change, mechanism for the enhancement of climate change awareness and understanding, defining Pakistan's position in international negotiations on key climate change issues, harmonization of national climate change policy with other national policies of various sectors and encouragement of major organizations and their role in launching climate change related programs."

2.3 Status as GHG emitter

The data set comprising emissions from "energy, agriculture, wastes, industrial processes and land use changes" was cited in both reports and thus shaped the critical third variable.

2.4 Past and future climate change related concerns

Past and projected climate change related concerns underlined in both the INC 2003 and TFCC 2010 data set comprised five major sub variables including "temperature, precipitation, carbon dioxide levels, extreme events and GHG levels". The INC 2003 reported the projected trends but failed to report the past scenarios, whereas the 2010 report provided past as well as projected trends.

2.5 Major climate change related concerns

The fifth variable shed light on the major climate change related concerns, INC 2003 provided insights into ten important sub variables such as "water, agriculture, food, forestry, coastal zones, livestock, biodiversity, important ecosystems, socio economic impacts, extreme events" whereas 2010 report indicated eight major sub variables such as "water security food security, energy security, coastal areas, forests, other ecosystems, socio economic impacts and extreme events." According to the Intergovernmental Panel on Climate Change (IPCC), the extent of climate change effects on individual regions will vary over time and with the ability of different societal and environmental systems to mitigate or adapt to change (NASA, 2016).

2.6 Mitigation

Mitigation measures for "energy, agriculture and forestry" were portrayed in both INC 2003 and TFCC 2010 representing the sixth variable.

2.7 Adaptation

"Water resources, agriculture, livestock, forests, coastal zones, biodiversity, energy and industry, socio economic and health" adaptation measures made up the data set of the seventh variable of both the reports. The INC 2003 highlighted data on all the sub variables except health, while on the other hand TFCC 2010 provided the complete data set of all the variables.

2.8 Organizational structure to address climate change

Organizational structure to address climate change formed the eighth variable. While the INC 2003 only illustrated the role of "Ministry of Environment" the TFCC 2010 also highlighted the *"responsibilities, tasks and roles of Prime Minister Committee on climate change, Planning Commission, NGOS, research and data collection organizations, mitigation and adaptation related organizations, relevant provincial ministries and departments, inter-ministerial committee on climate change, technical advisory panel, academic institutions and international funding agencies."*

2.9 Clean Development Mechanism (CDM)

The ninth variable of the TFCC 2010 was the "Clean Development Mechanism" which the INC 2003 ignored completely, the task force elaborated in detail on the basics of CDMs, their current status in Pakistan and the importance of further promotion of clean projects.

2.10 Education, communication and awareness

Education, communication and awareness formed the tenth variable of INC 2003 and TFCC 2010, "GLOBE, GEF-Pakistan website, workshops, seminars, international symposium on energy and environment conservation, besides print and electronic media" was defined in 2003, while all major steps taken by MOE to enhance this variable were defined in 2010 report defining its present status and need for the further effort to enhance the role of Ministry of Environment was also a part of 2010 task force report.

2.11 Institutional capacity for addressing climate change

Institutional capacity for addressing climate change defined the eleventh major variable. INC 2003 focused on the "role of Ministry of Environment" while the task force focused on the "Global Change Impacts Study Centre, Pakistan Meteorological Department, as well as other organizations such as federal ministries, government funded organizations, international organizations, NGOS, ministry of foreign affairs, WAPDA, SUPARCO, PAEC, COMSATS, FAST, ICIMOD and Asianics Agro Development International (Asianics)." The true economic impact of climate change is hard to predict. But it's safe to say that many key economic sectors – from fishing to energy to water utilities – will feel long-term impacts of climate change (Nature, 2016).

2.12 International cooperation

Twelfth section illustrated international treaties such the convention on high seas, convention on international trade in endangered species of wild flora and fauna, convention on the conservation of migratory species of wild animals, the United Nations convention on biological diversity etc. were highlighted in INC 2003, while TFCC 2010 highlighted mitigation, adaptation efforts, pointing towards capacity building and regional collaboration.

2.13 International negotiations for addressing climate change

International negotiations for addressing climate change related concerns which is the thirteenth variable of both the reports were differently portrayed in INC 2003 and task force 2010. INC 2003 focused on no sub variable and lacked in illustration, whereas the report features were mainly "mitigation and adaptation efforts by Annex 1 and Non annex 1 countries, technology transfer and technical cooperation." The United States signed on to the most universally supported treaty on climate change, the 1992 UN Framework Convention on Climate Change (UNFCCC), which was designed to protect the world from the dangerous effects of climate change (Wri, 2008).

3 Critical Analysis

3.1 Introductions

Section specific analysis was based on the reports of major sub headings which were actually contrasted in the comparative analysis, the first introductory variable illustrated overall eleven sub variables, INC 2003 provided data on the general overall conditions and scenarios of Pakistan including data on the national circumstances such as land area covered by Pakistan is approximately 888,000 square kilometers , country is divided into three hydrological units that is Indus basin, the Kharan desert and the Arid Makran, on the basis of climatic zones Pakistan is divided into eleven distinct plus the overlapping zones, 24 % contribution to GDP is by the agriculture sector alone, out of the total area approximately a third of Pakistan has been classified as the range land, 4.8 % land area is covered with the forests and Pakistan economy is based on the low income etc whereas on the other hand the 2010 highlighted the major issue of climate crises in a very well defined and appropriate manner such as the global climate change "the average temperature of the earth's surface increased by 0.6 °C over the past century and is projected to increase further by 1.1 to 6.4°C by the end of the current century" (IPCC 2007). Apart from looking at the global climate scenario, it includes potential impacts of climate change on key sectors of Pakistan such as energy, water and food security. The main feature of this section illustrated that although 2003 report highlighted eight major variables, none of them explained the climate crises scenario neither in context of global scenarios nor in context of Pakistan, whereas the 2010 report depicted only three variables but it strongly pointed towards this one basic climate crises issue and its related facts and impacts.

3.2 Objectives

Objectives are "tangible manifestations of goals", of what one wants to achieve within the content. While there are no actual "objectives" given, the Executive Summary states that the report tries to provide "a detailed analysis of issues confronting the Pakistani climate change planners" (INC 2003: 13); and under Section 3 Greenhouse Gas Inventory it is stated that since under Article 12.1 and decision 10/CP2, Non-Annex 1 Parties are required to submit a national inventory of anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol, to the extent its capacities permit, using comparable methodologies agreed upon by the Conference of Parties. Pakistan has prepared its national inventory for the year 1994 using IPCC-recommended methodologies. The stated objective of the 2003 INC was "to submit a national inventory of anthropogenic emissions by sources and removals" (INC 2003). Whereas TFCC (2010: xi) was meant as a guiding document for the subsequent formulation of the Climate Change Policy and therefore its stated objectives are much more comprehensive:

"Assist the government for sustainable economic growth by appropriately addressing the challenges posed by climate change, in particular the threats to Pakistan's water, food and energy security. Contribute to the international efforts to check climate change by controlling Pakistan's own GHG emissions to the maximum extent feasible. Help to increase the country's area under forest cover; Minimize the risks to the country's population and national economy arising from the expected increase in frequency and intensity of extreme events: floods, droughts, tropical storms etc. Help to increase the capacity of national organizations and to make full use of new developments in science & technology for effectively addressing climate change; and Identify need for international cooperation and support for addressing issues of climate change."

3.3 Status as GHG emitter

Pakistan status as GHG emitter presented the most strongest section of both the reports because in this actual quantitative comparisons were done the base line was taken as 2003 report and then looking at the base line 2010 report illustrated the actual scenario of GHG emissions from various sectors e.g. it has shown how much emissions have gone up and an increasing trend in 2010 report was portrayed e.g. in 2003 total emissions were about 181.7 metric tones while 2010 total emissions raised to the 309.4 metric tones.

3.4 Past and future climate change related concerns

Analyzing the past and future climate change related concerns, in 2003 report the past picture was not shown that how this climate change was actually in the past what were the main actors, contributos of this emerging issue such as the data on the carbon dioxide levels, temperature, precipitation and extreme events were not illustrated in INC 2003 while projected trend scenarios for temperature, precipitation and carbon dioxide levels were mentioned such as for temperature its + 0.3 degrees centigrade / decade ,for rainfall its + 1.0 % / decade and carbon dioxide levels 360,550 ppm while the 2010 illustrated well the past and future climate change picture for temperature, carbondioxide, precipitation and extreme events for example the past temperature scenarios of temperature cited that 1901-2009 time period 0.57 % increase in temperature was observed, precipitation increased by 25 % over the last century and hot speels duration have been increased in the 1970-2000 time period. Projected scenarios in the 2010 report cited that according to the global circulation models (GCM) temperature increase would be faced by both the northern and southern Pakistan, moreover northern Pakistan would face much higher temperatures increase than southern Pakistan, moreover according to GCM predictions precipitation levels would be increased in summers and decrease in winters and in context of extreme events the intensity and frequency of hot spells, heat waves, tropical cyclones and heavy precipitation would be increased.

3.5 Major climate change related concerns

Major climate change related concern in both the reports actually defined the fifth section in 2003 report highlighting of major threatening or the most climate change effected sectors of Pakistan have not been taken into account rather an overall potential threatening sectors were mentioned e.g. in the impact of water resources on over all water sector was analyzed, the impacts of climate change on the water sector and what will be the effects of water resources on various sectors were not mentioned, another variable was agriculture 2003 report focused on the impacts of climate change on agriculture e.g. it highlighted that due to temperature increase of 0.3% fourteen crops would be severely negatively affected not the basic data set regarding agriculture was defined in INC 2003, moving forward to energy supplies in INC 2003 major energy supplies along with the potential sources of wind, solar and hydropower has been considered, sea level rise and direct effects on the coastal zones had been mentioned in 2003 report, the overall forest cover area along with some major a forestation rates that have been increased were also defined in 2003 report , in health low income group people will be more prone to health related problems of climate change without mentioning the major outbreaks of several diseases in INC 2003 and lastly Extreme events and economic impacts were also taken into consideration under this major heading 2003 report only mentioned that the frequency of the extreme events will be increased without highlighting the impacts of this on GDP while on the other hand the task force highlighted the three major most potential threatening sectors such as the energy, agriculture and forestry under which the sub headings were emerged and remaining sectors were explained to which Pakistan should focus its attention and utilize most of the resources to tackle climate change impacts in these major sectors e.g. in 2010 report if water security is analyzed water security section not only provided the basic data but rather related variables relating to water such as rainfall, river flows, irrigation system, outflow to sea, reservoir capacity and melting of glaciers were mentioned with the clear cut major concerns of water security to Pakistan pinpointing the real on ground concerning questions about water security, 2010 report focused on the impacts of climate change on the crop productivity, the increase or decrease of yields due to temperature rise, the threats to cultivated areas due to different environmental problems and the direct and indirect impacts of climate change on the livestock sector, if the major concerns to this section are considered then in 2003 only shifts in the spatial boundaries of crops and potential changes in the water availability are considered while in 2010 report not only spatial boundaries of crops and water are considered rather increased intensity in climatic events, greater abundance of insects and lack of technical capacity to deal with the climate change impacts on the sectors are also considered. 2010 report energy supplies, energy consumption by various sectors and increased demands of energy in the coming years have been taken into account, the major concerns in 2003 report mentioned the ENERCON which can play role in energy efficiency while in 2010 report direct and indirect impacts of energy sector have been highlighted. 2010 report besides mentioning sea level rise and impacts on coastal zones the flow to the kotri was also mentioned with various years data. the major concerns of this sector in 2003 report focused on the overall impacts on this zone while 2010 highlighted impacts on the marine life, coastal communities and increased tropical cyclonic

activity. 2010 highlighted the forest cover area besides this annual loss of forests in terms of rupees have also been mentioned in 2010 report. Mangrove forests are also mentioned in 2003 and 2010 reports both the reports presented well with the basic importance of these forests, their location in Pakistan and the disappeared species of mangroves and reason of their disappearance were also mentioned. Range lands data in 2003 and 2010 reports was presented in terms of the total area of range lands and support of range lands to sheep and cattle besides this the impacts of climate change impacts on the range lands were lacked in 2003 report while 2010 mentioned this point. Degraded lands have been unspecified in 2003 report while 2010 report highlights some of the human activities responsible for the degraded lands. Mountainous regions were unspecified in 2003 report while 2010 report presented data in terms of more frequent GLOFs, loosening of the frozen soil and stones, making landslides and avalanches more common, depletion of forest resources were highlighted. Biodiversity is another sector that has been continuously in threat to the impacts of climate change the 2003 and 2010 reports specially emphasizes on the biodiversity data by mentioning the overall biodiversity situation along with the major flora and fauna species that are subjected to extinction due to adverse climate change impacts 2010 mentioned the outbreaks of various diseases whose frequency will be increased with the increasing temperatures such as malaria and heat strokes etc, besides this 2010 report focused on winter smog and atmospheric brown clouds. 2010 besides mentioning increases frequency pinpointed the increased GDP loses due to these events.

3.6 Mitigation

Mitigation having the status as the sixth major variable in both the reports highlighted some most important curbing mechanisms, INC 2003 analysis was done in terms of mitigation costs, along with total carbon dioxide abated and Net Present Value to reduce GHG emissions some of them are Energy efficiency improvements in tube wells, Energy efficient refrigerators, Energy efficient lights, Solar water heaters, Solar water pumping, Energy efficient fans, Cogeneration, Energy efficient motors, Energy efficient boilers, Improved wood stoves, Wind power generation etc. The agriculture sector mitigation efforts in 2003 report mentioned only two measures named as Water management in rice paddies and Improved feed for livestock which were mentioned in terms of mitigation costs along with total carbon dioxide abated million tons, Net Present Value Million Dollars. The forestry sector was also considered to be considered in the mitigation sector in 2003 report Agro forestry, Reforestation in conifer forests, Watershed plantations. Plantations on agricultural lands ,Protection of conifer forests were mentioned in 2003 report with the mitigation cost along with total carbon dioxide abated million tons, Net Present Value Million Dollars variables, 2010 report analyzed mitigation measures mostly they were same measures as in 2003 report but were not analyzed in terms of mitigation costs, along with the carbondioxide abated and net present value rather most of the mitigation measures in 2010 were general measures, in 2010 task force the present status of mitigation options as well as recommendations to improve the mitigation options were also highlighted.

3.7 Adaptation

Adaptation section analysis in 2003 focused on the overall general measures, the role of local communities in the adaptation measures were not linked to the general measures, moreover the most important health sector over which climate change impact is seen more seems to be completely absent ,2010 report on the other hand defined the in depth adaptation measures along with the particular requirements for each sector ,besides this recommended measures and ongoing and planned actions were also the part of this section ex. if we consider the adaptation measures for water then improving system efficiency, water shed management, urban water use, flood control, flood mitigation, flood protection structures, weather forecasting were taken into account in both the 2003 and 2010 reports ,besides this some additional variables in 2010 which are mentioned includes storage capacity, water use efficiency, glaciers ,capacity building and national water policy. Agriculture and livestock adaptation measures mentioned in 2003 and 2010 reports were Agriculture and livestock changes in the cropping pattern ,adjusting cropping pattern with water availability, improved production and management, changes in the land use, adaptation in the range land ecosystem, fodder, improved feed, restoration of degraded lands besides this some additional measures mentioned in 2010 were crop productivity, new breeds of crops, efficiency of water use, efficiency of other agricultural inputs, water intensive crops, water storage capacity post-harvest loses, livestock and capacity building coastal areas adaptation measures included in 2003 reports were coastal defense structures along with the additional adaptation measures mentioned in 2010 report. Forests and other vulnerable ecosystems includes adaptation measures both in

2003 and 2010 reports and included the pest control, changes in species and varieties, preservation of water sheds, control of wastage, besides these the 2010 reports contain some additional variables for the forests. Heath adaptation measures were unspecified in 2003 report while in 2010 report overall improvement in the environment is the main adapted measure mentioned. Extreme events adaptation measures were addressed both in 2003 and 2010 reports 2003 focused on the capacity building while 2010 mentioned on the NDMA in terms of extreme events adaptation. Socioeconomic adaptation measures were specified in 2003 report while it remained unspecified in 2010 report. The biodiversity adaptation measures were mentioned both in 2003 and 2010 reports, both the reports mentioned variables such as Biodiversity migration vs autonomous adaptation, preservation of ecological processes, protected areas, corridor management, buffer zones, ex situ conservation while some additional measures were also mentioned in the 2010 report.

3.8 Organizational structure to address climate change

Organizational structure to address climate change when analyzed in 2003 INC report focused on the roles, tasks, responsibilities of only Ministry of Environment and highlighted the fact that only strengthening of MOE could deal with all this climate change, special tasks how the ministry will collaborate with other related climate organizations and how other climate related organizations work could contribute in mitigation of climate change was completely unspecified, the linkages of the major authoritative governing body of climate change tackling concerns with others were not defined whereas 2010 task force made the complete linkages and associations of Ministry of environment with fourteen various organizations through which complete well defined pattern could be emerged ,the main focusing feature was that the academic institutions that would be involved in dealing with climate change were also illustrated. Avoiding the worst consequences of climate change will require large cuts in global greenhouse gas emissions (CFR, 2013).

3.9 Clean development mechanism

Clean development mechanism which is one of the flexibility mechanism of the Kyoto protocol and help industrialized countries to meet their emission reduction targets was unspecified in 2003 report while 2010 report not only defined the present status of CDM in Pakistan, its current scenario but rather strategies and effective measurements to enhance the role of CDM in Pakistan.

3.10 Education, communication and awareness

Education, communication and awareness is considered to be the primary step in dealing with climate crises issue, 2003 focused on several means how this could help in of climate change dealing while 2010 focused and illustrated in an in-depth manner of all the efforts which have been taken by the ministry of environment to deal with climate change, not only past efforts were mentioned rather future recommendations for the enhancement of this variable were also pointed out.

3.11 Institutional capacity for addressing climate change

Institutional capacity for addressing climate change in 2003 report focused only on the role of MOE, other related organizations were not taken account how each sector and organization could play an integral role in addressing and combating this issue, while 2010 highlighted and incorporated all the related ministries and public and private organizations role in dealing with climate change thus building an integral organizations net through which this issue could be dealt in an appropriate manner.

3.12 International cooperation

International cooperation section analysis revealed that in 2003 report the focused was only international treaties, several treaties were mentioned but there was no mention that how much each treaty could contribute to deal with the climate crises and how much GHG levels could be reduced by effectively implementation of all these international treaties of environment, moving to the 2010 report analysis of this specific section it highlighted the general mitigation ,adaptation measures ,moreover regional collaboration and capacity building were defined but not analyzed how these specific variables could contribute in improving the climate crises scenarios in terms of reduction ,quantification of GHG levels reduction were not highlighted which seem to be very important to deal with this climate change issue.

3.13 International negotiations for addressing climate change

International negotiations which now considered to be one of the important means to deal with the climate crises was completely ignored in 2003 report ,while 2010 taskforce highlighted the importance of international negotiations not only by Pakistan but the other Non-Annex 1 and Annex 1 countries, strengthening of mitigation and adaptation measures were also highlighted,

moreover 2010 also focused on the fact that Pakistan should call for the establishment of scientific criteria for the assessment of vulnerability of various countries to the climate change so that they could be ranked on their vulnerability basis of climate change, besides this the support to the continuation of Kyoto protocol along with other major measures were also focused in task force 2010.

3.14 The Climate Change Policy (2011)

National climate change policy 2011 sets the frame work for addressing the climate change policy ,basically the inputs for the national policy included the data from the task force 2010, moreover federal institutions and civil society besides consultation with all provinces were also incorporated in the consultation to this national climate change policy, the climate policy has thus set a comprehensive framework for development of action plan for national effort on adaptation and mitigation, moreover one of the key factor of this climate change policy of Pakistan includes the Reviewing and updating of policy to reach the emerging concepts and issues of ever evolving science of Climate change Climate change policy 2011 has some key strengths some strong features of this policy included that this policy has set specified goal along with clear cut objectives, specific adaptation and mitigation policy options were also highlighted, Gender, poverty and disaster preparedness have been brought to front line in tackling climate crises in this document ,Town planning in mitigation has also evolved as an emerging concept and lastly the Policy implementation mechanism also served as the main feature of this climate change policy document 2011,besides strengths some weaknesses of this report have also been analyzed such as the key main weakness feature included that Policy options to improve Climate change scenario is without any time line, a conceptual frame work to achieve the goal to tackle CC remains unspecified, how these policy options will reduce and contribute to lowering carbon emissions are not mentioned, While gender is mentioned, it is more like a cumbersome “add on”, Adaptation measures are mainly focused on developing resilience of agriculture, water and power sectors in spite of the fact that development and modification of infrastructure and urban development should be given an equal focus. The policy of climate change 2011 appears to be a “test tube” development since the 2003 communication and 2010 TFF report are not used as baseline or even strong reference documents, only theoretical promises of “increased investment in research for climate change mitigation and adaptation”, Costs of achieving the policy options are not calculated. Various “policy measures” are outlined but no directions given on HOW and WHEN they will be achieved and FOR HOW MUCH, Though the Green Climate Fund, Adaptation Fund, GEF, CDM, World Bank’s Forest Carbon Partnership figure in the policy as mechanisms from which “money” will be obtained, we remain clueless about WHO and WHEN. E.g. Only 11 projects from Pakistan have been registered with UNFCCC since the introduction of CDM and a total amount of $273 million has been invested in these projects, which is just 0.27 percent of the total spending by countries in Asia and Pacific region.

4 Critical GAPS in Policy Analysis

The comparative analytical framework looks at four gaps in policy analysis: administrative capacity and implementation, finances, and research/policy gaps based on the thirteen variables specified in the reports.

4.1 Administrative capacity and Implementation

Analyzing the administrative capacity and implementation of both the reports it came into light that while both reports outline who and which department is responsible for what, there is no overarching monitoring and evaluation mechanism to determine if the responsibilities set in 2003 and subsequently in 2010 were accomplished or not, moreover Since there are no time bound objectives, temporal comparisons cannot be made either, analyzing the Mitigation and adaptation measures it has been revealed that measures for both mitigation and adaptation are mentioned but without any time line, Most of the adaptation and mitigation measures in both the reports require vast technologies and extensive research for which no specific activities and roles defined in 2010 while 2003 focused on research programs, frame work for implementation seem to be completely absent in both the reports , Mechanisms for collaboration for knowledge sharing between NGOs, universities and MoE missing and lastly No mention is made of either dearth nor availability of (real) climate scientists, (actual) ecological/climate economists in the country nor MoE.

4.2 Policy and research gaps

Policy and research gaps analysis came out with some of the most high lightening features, first of all the data of 2003 report was based on the 1993–1994 data whereas on the other hand task force 2010 report data was based on the 2007-2008 data, the data sources which were actually

used in both the reports were completely different so its authenticity and cross checking raised as an emerging issues, moreover inconsistentency was also observed in both the data sets of reports the variables defined in both the reports were similar and also differences were found out in them so a continuous pattern in terms of comparison was not observed and due to presence of this variable pattern the comparison was extremely tricky, further more differential pattern in terms of continuation of projects and policy were also seemed to be the hindrance issue in analysis, absences of future research requirements in 2010 report was seen to be the major drawback of task force. Data set of both the reports were mostly based on the reports of the World bank and United Nations reports and very little usage of local research organizations so it was also a drawback of both the reports.

4.3 Finances

Analyzing the financial gaps of both the reports ,the Cost benefit analysis was not actually conducted neither in 2003 nor in 2010 report ,moreover all the measures related to mitigation, adaptation and several other steps to address through which climate crises should be addressed were without any budget specifications ,no mention was reported in both INC and task force that which sector requires how much budget to actually achieve the goals to reduce GHG emissions or for the adaptation measures.

5 Conclusion

Unless Climate Change trends are reversed and things return to normal, agriculture will be the most seriously impacted sector. Without a clear-cut adaptation strategy and the requisite resources and capacity building the medium to long-term prognosis is far from good (IUCN). The Pakistan government must prioritize its response to climate change to mitigate environmental threats and prevent future calamities (Nazar, 2016).

As it is very clear from the analysis of both reports that Pakistan is extremely vulnerable to climate change and three most potential threatening sectors due to which Pakistan is and will be severely affected includes the energy, food and water, although various research organizations data have predicted the upcoming scenarios of climate change impacts particularly for the temperature, precipitation and extreme events using various models but still Pakistan has a long way to go in even understanding its climate change problems (if any since we still do not know where our vulnerability lies in terms of an index) based on scientific data and its impacts on the lives of local communities and citizenry moreover a different way of targeting the Climate Change question should be done based on real time baseline field research and analysis, rather than just number crunching and rehashing statistics based on donor project reports, hearsay and dated government documents further more Pakistan's stance on international CC platforms needs to be stronger, well-informed and consistent and finally and most importantly there is a dire Need for a National Commission on Climate change which could perform the following tasks:

- Coordinate climate change activities
- Monitor and assess emissions of greenhouse gases
- Monitor and assess impacts of national climate and weather conditions on oceans, snow and glaciers, citizens and Pakistan's ecosystems and resources.

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Обсуждение политических мер в отношении охраны окружающей среды в государстве Пакистан

[1] Аниль Салман
[2] Недим Макаревич

[1] COMSATS Институт Информационных Технологий, Пакистан
E-mail: aneelsalman@yahoo.com
[2] Посольство Боснии и Герцеговины в Пакистане, Пакистан
E-mail: nmakarevic.science@gmail.com

Аннотация. В работе приводится сравнительный анализ мер, произведенных Министерством охраны окружающей среды правительством Пакистана для оценки степени их воздействия и определения наличия у них потенциала. Исследование показало, что существуют пробелы в действиях, также назревает острая необходимость их изучения в дальнейшем на местном уровне и поиска инновационных путей их преодоления. В заключение, авторы утверждают, что, учитывая отсутствие фактических данных и долгосрочных сценариев развития и верно продуманных механизмов осуществления и применения результатов исследований, Пакистан должен пройти длинный путь развития, на данный момент не до конца осознавая степень изменения климата и влияния процесса на жизнь местных сообществ и граждан.

Ключевые слова: политика изменения климата, Пакистан, правительственные документы.