Pakistan

United Nations Development Programme
Country: Pakistan

Project Title:	**Institutional Support to Climate Change Adaptation and Mitigation**
OP/ Country Programme Outcome:	Vulnerable populations benefit from improved sustainable environmental management practices, including climate change mitigation and adaptation
Country Programme Output: (Those linked to the project and extracted from the CCPAP)	Climate change adaptation and mitigation strategies and action plans developed and piloted at local level by federal and provincial governments, private sector, academia and civil society, including women's groups.
Project Outputs: (Those that will result from the project and are taken from the Project Strategy)	▪ Output 1: Climate change adaptation and mitigation strategies and action plans developed and implemented
Implementing Partner:	UNDP
Responsible Parties:	UNDP

Project Brief Description

The Pakistan Federal Cabinet approved the "National Climate Change Policy" on September 26, 2012 and it was officially launched on February 26, 2013. The Policy includes Framework for Implementation of National Climate Change Policy and was developed through UNDP support. This DIM project aims at undertaking a series of activities to help mobilize substantially enhanced funding for climate change adaptation and mitigation related initiatives, within the over-arching framework defined by the Climate Change Policy. This project is, therefore, aimed at providing institutional support for the large scale operationalization of the National Climate Change Policy in the long term within the context of climate change adaptation and mitigation.

Programme Period: 2013-2017
Key Result Area (Strategic Plan): Growth and development are inclusive and sustainable, incorporating productive capacities that create employment and livelihoods for the poor and excluded.

Atlas Award ID:	00075411
Atlas Project ID:	00087334
Start date:	August 1, 2013
End Date	December 31, 2017
PAC Meeting Date:	
Management Arrangements: DIM	

Total resources required US$ 1,700,000

Total allocated resources:

- Regular _____
- Other:
  - Donor _____
  - Donor _____
  - Government _____
- Unfunded budget: _____
- In-kind Contributions

Agreed by UNDP (CD / DCD-P) 30 July 2013

Institutional Support to Climate Change Adaptation and Mitigation
Strategy Document for UNDP Pakistan ECCU

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Climate Change:

Global Climate Change, resulting from an increasing concentration of Greenhouse Gases (GHG) in the atmosphere caused by the use of fossil fuels and other human activities, is now an established phenomenon and its effects have been observed in most parts of the world including Pakistan. The latest report of Intergovernmental Panel on Climate Change (IPCC) Working Group-III, Climate Change 2014: Mitigation of Climate Change shows that global greenhouse gases emissions have gone up to unprecedented levels despite global reduction efforts. It also highlighted that greenhouse emissions grew more quickly between 2000- 2010 than in each of the three previous decades. The IPCC is the most authoritative intergovernmental scientific body on climate change under the auspices of the United Nations (UN). This latest report of Working Group- III highlights that we need to aim for substantial emission reduction if we want to be in line with 2-degrees Celsius UNFCCC warming limit. Report further stated that it is doable. The Climate Change scenarios used in this report are based on the analysis of 1200 scenarios generated by 31 modeling groups around the world. This analyses indicate that for achieving 2-degrees Celsius goal means lowering global GHG emissions by 40 to 70 percent compared with 2010 level by mid-century and to near-zero by the end of this century. The estimated global greenhouse gas emission levels in 2020 based on Cancun Pledges of emission reduction are not sufficient to limit temperature change to 2 C.

In developing countries, the risks associated with climate change are more pronounced, and 5% of the total population is exposed to the climate risks and increased vulnerability among women compared to men. The inequalities in gender intersect with the climate risks and vulnerabilities. Women in general are at a disadvantage because of limited access to resources, restricted rights, lack of access to information and limited voice in decision making. Thus, it is important for developing countries to make climate change a priority area.

Concerted global efforts to combat and mitigate this change –both at the international and local level- are imperative to counter this phenomenon.

Climate Change in Pakistan:

Pakistan generally a warm climate; it lies in a world region where the temperature increases are expected to be higher than the global averages; its land area is mostly arid and semi-arid (about 60 per cent of the area receives less than 250 mm of rainfall per year and 24 per cent receives between 250-500 mm). Geographically, Pakistan lies on a steep incline, dropping sharply from almost 8500 meters down to sea level within a distance of less than 3000 km. The Northern Areas boast huge glacial reserves, the Hindu Kush-Karakoram-Himalayan glaciers which melt and flow through the country, supplying more than 70% of the river flows. This frozen "blue gold" is the country's most precious reserve and sustains the largely agrarian economy, aided by the unpredictable monsoon rains of the summer. This also means that Pakistan's economy is highly climate sensitive. The glacial melt coincides with the monsoons during the three-month summer period, providing the irrigation water needed for the arid country. These glaciers are retreating at an alarming rate, and because Pakistan's economy is sensitive to the climate, the country faces increasingly larger risks of variability in monsoon rains, large floods and extended droughts.

Climate Change has now added a new volatile dimension to this scenario by not only speeding up the melting of the glaciers in the north but also enhancing the variability and unpredictability of the monsoons. Under the influence of all these factors the Water Security, the Food Security and the Energy Security

of the country are under serious threat. Compounding these problems are the expected increased risks to the coastal areas (these include Karachi, Pakistan's largest city and the hub of its industrial activity and international trade) and the Indus deltaic region due to sea level rise and increasing cyclonic activity; to the mountainous regions due to glacier lake outburst floods (GLOFs) causing 'mountain tsunamis' and landslides; to the country's scanty forests (less than 5% of the land area is under forest cover) due to forest fires as well as reduced regeneration under rapidly changing climatic conditions; to human health due to heat strokes, diarrhea, cholera, vector borne diseases, etc.; and to human settlements due to floods and cyclones. One of the worst impacts of global climate change is envisaged to be an increase in both the frequency and the ferocity of extreme events. This threatening prophecy is now fulfilling itself in Pakistan.

Recent events demonstrate the looming presence and threat of climate change in Pakistan. The 2010 floods in Pakistan - the worst in its history - were caused by the lethal combination of glacial melting and the shifting of the monsoons, aided by landslides and the effects of deforestation. Heavy rainfall, flash floods and riverine floods combined to create a moving body of water equal in dimension to the land mass of the United Kingdom. According to the Pakistan Emergency Response Plan, the floods affected 84 districts out of a total of 121 districts in Pakistan, and more than 20 million people – one-tenth of Pakistan's population – devastating villages from the Himalayas to the Arabian Sea. More than 1,700 men, women and children lost their lives, and at least 1.8 million homes were damaged or destroyed. On his visit to Pakistan in the aftermath of these floods, Ban Ki Moon, the Secretary General of the UN, said

"This has been a heart-wrenching day for me, I will never forget the destruction and suffering I have witnessed today. In the past I have witnessed many natural disasters around the world, but nothing like this."

This was followed by another climate change related event in 2011 - a more devastating flood in which the monsoons shifted, causing unprecedented rainfall in Sindh, which led to catastrophic flooding and displacement of people in the nearby areas. This resulted in producing the highest ever recorded days of rainfall. This, unfortunately coincided with, rapid and large releases of water from across the border which swelled the rivers to create an unprecedented flood situation in Sindh accumulating almost 37 million acre feet in just four weeks. The flat topography of the province, with little natural drainage, has further worsened the situation leaving millions displaced, uprooted and severely impacted. This was termed a 'freak event' because despite being relate to the changing climate, it was unpredictably different from the floods of 2010.

In both cases, the climate triggers were, thus, clearly visible in the devastating floods that ravaged through Pakistan's infrastructure and left it's already feeble, economy reeling for survival.

To make matters worse, Pakistan faced a climate-triggered epidemic - the dengue fever. Originally a disease of the tropics, it was not common in the mostly arid and temperate climate of Pakistan. However 2010 saw the first scare followed in 2011, by a full-fledged outbreak of an explosive dengue epidemic in Lahore city that afflicted thousands of people. It followed at the heels of an unpredictable weather pattern in Lahore, which included a long stretch of extremely high humidity accompanied by almost daily rainfall and very little sunshine days. Although this, almost tropical weather, turned the whole city into an eye-pleasing lush "rainforest" green color it also silently laid out the ideal breeding ground for the dengue mosquito.

In view of Pakistan's high vulnerability to the adverse impacts of climate change, in particular extreme events, and low GHG emissions compared to international standard, justifiably country's focus is on adaptation efforts. However, in spite of our very low GHG emissions contribution, our role as a responsible member of the global community in combating climate change needs to be fully taken into consideration while responding to climate change mitigation issues.

Strategy:

- The impacts of climate change are observable and there is broad scientific consensus that further change will occur.
- Climate Responsive Budgeting
- Capacity Development of Climate Change related institutions
- Partnerships with UN agencies, Government organizations, NGO's and the private sector in climate related interventions
- Address Pakistan's security issues in the context of changing Climate with respect to National security, water security, food security and human security as a whole.
- Resource Mobilization and donor coordination
- To support green initiatives of federal as well as provincial governments
- To focus on urban resilience towards climate change
- To work towards renewable energy resources and energy efficient initiatives
- Even if the world makes a significant reduction in greenhouse gas emissions, the lag in the climate system means that we are faced with decades of climate change due to the emissions already put into the atmosphere.
- Therefore, mitigation efforts are no longer enough. There is a need for a more proactive approach in order to build resilience to climate change.
- Therefore, Climate Change Adaptation has therefore emerged as imperative and high on the development agenda.
- Adaptation is a strategy to deal with the unavoidable impacts of climate change.
- It is a mechanism to manage risks, adjust economic activity to reduce vulnerability and introduce climate proofing to communities and state infrastructures.
- Projected changes in rainfall, glacial melts and sea level rise and more extreme weather will bring risks to the security of our water resources, agricultural systems and settlements, and to the health of people.
- However, in order for adaptation programmes to be enduring, sustainable and impactful, adaptation needs to be mainstreamed into national development policies and plans, and made a government priority area.

Description of indicative activities as per the output:

Output 1: Climate change adaptation and mitigation strategies and action plans developed and implemented.

- **To design and operationalize Pakistan's Climate Change Programme:** To Undertake Vulnerability Mapping and Assessment in the Tibetan Eco-region of Pakistan and to develop the Management Plan for the Tibetan Eco- region and declare it as a Biosphere Reserve and also to collaborate with Government of Gilgit-Baltistan and Ministry of Science and Technology in this initiative. Pakistan has 9 eco-regions and almost all of them face challenges posed by climate change. However, the Tibetan eco-region – hosting the Karakoram-Pamir Mountains – is of highly fragile nature with potential to trigger major disasters. It is also the leading source of stored precipitation the Northern Mountains that demands urgent focus. Therefore, UNDP plans to commission a Climate Change Vulnerability Mapping and Assessment of Pakistan's Tibetan eco-region. In order to assess the feasibilities of various Climate Change Adaptation options that shall ensure the protection of ecological and socio-anthropological features of this pristine and unique landscape. The site is spread over a vast area and includes a major part of the Karakoram mountain range and parts of contiguous Pamir in the 4 districts of Gilgit-Baltistan in Pakistan. The area selected for vulnerability mapping and assessment is a mosaic of high altitudinal mountain ecosystems with rivers, lakes and streams; glaciers and glaciated lakes; alpine and sub-alpine pastures and meadows; shrub lands and forests; riparian and other vegetation with numerous plant species, all associated with different faunal species from large ungulates and carnivores to various other species, representing birds, reptiles, amphibians, insects etc. With over 0.3 million people, living and dependent directly upon the snatural goods and services of the natural ecosystems of the proposed area, and millions other that reap its benefits downstream, the proposed location has the potential to demonstrate sustainable living, even under threats such as climate change and disasters of several kinds. On the other hand, same site could become a big ecological disaster, if left to people with little capacities to manage it ably. The proposed location has two well-known national parks: the Central Karakoram National Park; and the Khunjerab National Park, both covering almost 15,000 km2 areas while another 13,000 km2 of pristine landscape that comprises of game reserves, community controlled trophy hunting areas and connecting corridors of different sizes and magnitude are also included. At the moment, each has different management approaches and different protection strategies, however the protection of the entire landscape would be better guaranteed when brought under a common management regime. Moreover, each segment of the Karakoram-Pamir landscape has different cultural and traditional values with associated indigenous knowledge. There is insufficient information about the social treasures that the area possesses and there is every possibility that the biggest of such treasures, which in indigenous knowledge of people related to the uses of resources and, possibly, adaptations to climate change, may erode if not documented and preserved urgently.

- **To Develop "National Climate Change Policy support Programme" document of UNDP Pakistan:** The document shall be developed in line with the National Climate Change Policy where the proposed components shall build on various activities under the climate change scenario of Pakistan and then it shall seek the endorsement of the Government of Pakistan to formally go ahead with the project.

- **Uundertake Climate Public Expenditure and Institutional Review (CPEIR):** The Climate Public Expenditure and Institutional Review (CPEIR) is a developing methodology that has been conducted in a number of countries which reviews governmental climate change related expenditure, institutional arrangements and related policies. The CPEIR process is intended to support the government to enhance the climate change response through various enhancements such as more efficient, effective and coordinated allocation and use of CC-related resources, strengthening policy implementation and reform processes and making a further contribution to CC mainstreaming. The conduct and output of the Pakistan CPEIR are expected to contribute to mainstreaming climate finance by raising awareness of strategy and policy issues, promoting the efficient and effective use of resources, assessing policy formulation and implementation thereby contributing in a practical way to greater co-operation between diverse stakeholders. The CPEIR will make practical recommendations for actions and interventions to improve the management of climate finance in Pakistan in the future. The CPEIR approach has potential to become a benchmark reference that will allow policy makers assess the present status of the national and provincial response to climate change in order to inform preparation for the scaling-up of access and delivery of climate finance.

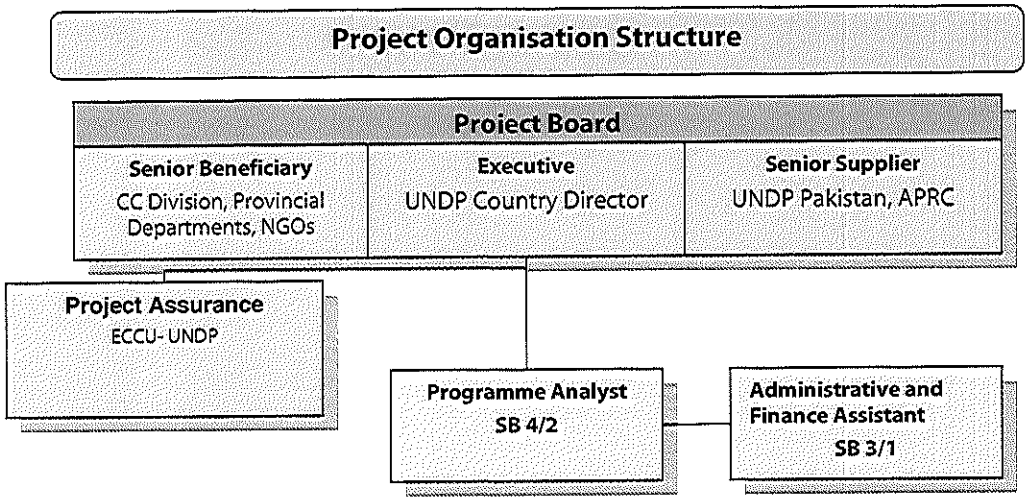
- **To finalize Pakistan's Accredited National Implementing Entity (ANIE):** The objective of this activity will be to conduct a study on Accredited National Implementing Entity (ANIE) through a comparative analysis of strengths and weaknesses of 10 national organizations. With respect to recently established Green Climate Fund (GCF), the identification of all relevant institutions will take place and accordingly assessed, in order to meet the criteria for GCF and also provide recommendations with any gaps in terms of capacity building requirements for specific organizations that partly fulfill the eligibility criteria for ANIE. The most relevant public/private sector organizations will be finalized specifically for Green Climate Fund that has recently been established in South Korea.

- **The Vulnerability of Pakistan's Water Sector to the Impacts of Climate Change:** This study sets out as an initial phase of a longer-term project that would include a comprehensive assessment of the vulnerability of key components of Pakistan's water sector to the impacts of climate change and support preparation of a National Water Sector Adaptation Plan. UNDP shall work towards improving decision-making in Pakistan's water sector by; developing a full picture of current knowledge regarding the exposure of Pakistan's water resources to the impacts of climate change and the potential socio-economic ramifications of these impacts, Identifying priority research gaps and barriers in order to overcome these gaps, Enhancing understanding of and capacity to respond to the vulnerability of Pakistan's water resources through revised or new policies, research programs and other initiatives and Increasing comprehension by the people of Pakistan regarding how climate change could alter the future availability of water resources

- **To Develop Pakistan's SE4ALL (Sustainable Energy for All) RA/GA Report:** Since the past few decades, energy sector has recieved immense importance given its significant conribution towards economic growth and improvement of overall quality of life of citizens. Rising population trends and depleting conventional energy resrves have further accelerated the debate on energy sector issues and policies, across the world. In 2011, United

Nations initiatiated the SE4ALL initiative, which serves as a global forum for all countries to make joint efforts towards achieving its three key objectives; universal access to energy; doubling the rates of energy efficiency and conservation; and doubling the share of renewable energy in the overall energy mix. Since its initiation, many countries have committed to SE4ALL, including 70 developing countries. This has resulted in mobilization of investments, resoucres and advocacy. Pakistan joined this global initiative in the 2013. Prime Minister of Pakistan co-chaired, with Prime Minister of Denmark and Minister for Development of Norway, the 32 member countries Group of Friends of SE4ALL in September 2013. The purpose of Rapid Assessment and Gap Analysis will be to provide an overview of the energy situation in the country within the context of its economic and social development and poverty eradication; to assess current status in the country in terms of the SE4ALL goals; carry out mapping of the on-going and planned initiatives and policies in the energy sector by federal and provincial governments; to estimate the main challenges and opportunities for which major investments, policies and enabling environments will be required and sound basis and background for an Action Plan that may follow as part of the SE4ALL activities in the country.

- **Scoping the potential for Low Carbon, Low Emission Urban Development in Pakistan**: In the case of Pakistan, the level of urbanization is highest in South Asia, and its urban population likely to equal its rural population by 2030. However, most cities are fraught with numerous issues ranging from lack of basic services such as solid waste management, waste water management, unplanned growth etc. to lack of preparedness against climate induced disasters, unsustainable energy usage and high carbon economy. There is great scope to promote low carbon/low emission urban development in Pakistan



Audit and Oversight Arrangements

Implementing partners agree to cooperate with UNDP for monitoring all activities supported by cash transfers and will facilitate access to relevant financial records and personnel responsible for the administration of cash provided by the UNDP. To that effect, Implementing partners agree to the following:

1. Periodic on-site reviews and spot checks of their financial records by UNDP or its representatives,
2. Programmatic monitoring of activities following UNDP's standards and guidance for site visits and field monitoring,
3. Special or scheduled audits. UNDP will establish an annual audit plan, giving priority to audits of Implementing Partners with large amounts of cash assistance provided by UNDP, and those whose financial management capacity needs strengthening.

The audits will be commissioned by UNDP and undertaken by private audit services. Assessments and audits of non-government Implementing Partners will be conducted in accordance with the policies and procedures of UNDP.

Risk Log Matrix - ATTACHED

OFFLINE RISK LOG

Project Title: Institutional Support to Climate Change Adaptation and Mitigation					Award ID: 00075411			Date: August 23, 2013	
#	Description	Date Identified	Type	Impact & Probability	Countermeasures / Mngt response	Owner	Submitted, updated by	Last Update	Status
1	Resource mobilization	20 July 2013	Financial	We should ensure enhanced resource mobilization. Failing to do so would impact our future funding and delivery with respect to our environment and climate change portfolio Enter probability on a scale from 1 (low) to 5 (high) P = 2 Enter impact on a scale from 1 (low) to 5 (high) I = 4	We will develop more marketable programmes and vigorously pursue global and local funding sources	DIM project		20 July 2013	New
2	Staff for the Project	20 July 2013	Operational Organizational	We should ensure the positions are advertised timely so that staff is on board in order to launch the activities as planned P = 3 I = 4	We will ensure that the AWP is signed in time and we post the advertisements for the positions to bring staff on board at the earliest	UNDP		20 July 2013	New

3	Hiring of Consultants	20 July 2013	Operational Organizational	Hiring of technical consultants require a lot of effort and time especially when the technical expertise are required. Sometimes they quote on the higher side so we have to ensure we have enough budget to facilitate them keeping in mind their competency and experience P = 4 I = 4	We will ensure that the consultancies are advertised on the websites and also shared amongst stakeholders. We can also pick from the rosters if possible	DIM Project and UNDP Jointly		20 July 2013	New