GEF

United Nations Development Programme
Country: Pakistan
PROJECT DOCUMENT

Project Title:	Generating Global Environmental Benefits from Improved Decision Making Systems and Local Planning in Pakistan
UNDAF Outcome(s)/ Indicator(s):	Improved living conditions through environmental management for sustainable development
UNDP Strategic Plan Environment and Sustainable Development Primary Outcome:	Strengthened national capacities to mainstream environment and energy concerns into national development plans and implementation systems
Expected CP Outcomes:	Outcome 3.2: Vulnerable Populations benefit from improved sustainable environmental management practices, including climate change mitigation and adaptation
Expected CPAP Outcome(s) /Output/Indicator(s):	Commitments under global conventions on biodiversity implemented Indicator: Number of gender-sensitive provincial climate change adaptation and mitigation action plans developed and implementation supported
Executing Entity/Implementing Partner:	Ministry of Climate Change, Government of Pakistan
Implementing Entity/Responsible Partner:	Ministry of Climate Change, Government of Pakistan , UNDP

Brief Description. Pakistan has a long history of environmental planning and management however it was the launch of its National Conservation Strategy (NCS) in 1992 that marked the beginning of its recent sustainability journey. Highlighting the importance of environmental information and its integration in broader economic development, NCS lead to the creation of a first set of national and provincial institutions that would carry this responsibility. Since then, several projects have been undertaken for the purpose. While significant environmental capacity and awareness have been created, sustainable environmental information management system and integration of environment and development remain to be adequately achieved. The project would help achieve this by addressing the barriers to (a) regular availability of consistent and reliable environmental data; (b) coordinated and robust environmental information management system, and (c) sustained commitment and capacity for sustainable development planning and legislation. In doing so, the project seeks to leverage the investments made previously building on the foundation these investments have laid.

Program Period:	2013-2017	Total allocated resources:	
CPAP Program Component:	3	GEF (cash):	$995,500
Atlas Award ID:		UNDP (in-kind/cash):	$217,700
ATLAS Project ID:		Government:	
PIMS Project ID:	4939	• Parallel Financing:	$636,350
Start date:	January 2016	• In Kind:	$86,000
End Date	December 2018	**Sub-Total – Government:**	**$722,350**
Management Arrangement:	NIM	**Total**	**$1,935,550**
PAC Meeting date			

Agreed by: Ministry of Climate Change

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Acronyms and Abbreviations

COMSATS University (COMSATS)
Cross Cutting Capacity Development Strategy (CCCDS)
Environment Protection Agency (EPA)
Global Environment Facility (GEF),
Harmonized Approach to Cash Transfer (HACT)
Inception Report (IR)
Inception Workshop (IW)
Multilateral Environmental Agreements (MEAs)
National Bio-safety Centre (NBC)
National Capacity Self Assessment (NCSA)
National Conservation Strategy (NCS)
National Data Base and Registration Authority (NADRA)
National Disaster Management Authority (NDMA)
National Disaster Management information System (NDMIS)
National Environmental Management Systems (NEMIS)
National Project Director (NPD)
Pakistan Bureau of Statistics (PBS)
Planning and Development (P&D)
Project Coordinator (PC)
Project Cycle Operations Manual (PCOM)
Project Executive Committee (PEC)
Project Progress Reports (PPR)
Project's Terminal Report (TPR)
Regional Coordinating Unit (RCU)
Space and Upper Atmospheric Research Organization (SUPARCO)
Sustainable Development Network of Pakistan (SDNPK)
Tripartite Project Review (TPR)
Water and Power Development Authority (WAPDA)

Part I - PROJECT

A. Project Summary

A.1. Project Rationale, Objectives, Outcomes/Outputs and Activities

1. Pakistan has a long history of environmental management however it was the preparation and launch of a very comprehensive National Conservation Strategy (NCS) that put Pakistan in spotlight. The overarching theme of the Pakistan NCS was that environmental issues are interrelated and that environmental problems can't be addressed in isolation from the issues of broader economy. The NCS therefore sought to integrate environment and development leading to the creation of some key institutions, notably NCS Unit in the Ministry of Environment, Environment Section in the Planning Division, and Sustainable Development Policy Institute. This was followed by the creation of environment sections in the provincial planning and development departments, strengthening environmental laws, and capacity building of environment protection agencies at the federal and provincial level. IUCN in Pakistan, as the key non-governmental organization, enabled the development of NCS that involved other NGOs as well. The NCS process also helped the NGO Community grow stronger in the country.
2. Unfortunately, due to geo-political reasons, the ensuing decades saw both economic development and the environment suffer, the later more so. To their credit, environmental players both inside and outside the government kept the debate alive, and donor support prevented the environment from going into oblivion. It was helped, ironically, by the natural disasters and floods whose impacts were believed to have been accentuated by Climate Change. The challenges of environment-development integration continued partly attributed to the lack of reliable and consistent environmental information and partly to the need for enhanced capacity and commitment across the different levels of government and society.
3. This need for consistently available environmental information to support mainstreaming of environment in economic development has been recognized in all the was recognized in NCS and all subsequent policy initiatives of National Environment Action Plan, Provincial Conservation Strategies, forest policy, climate change policy and notably the National Capacity Self-Assessment (NCSA). The NCSA for Pakistan completed in 2008 in particular highlights how the importance of environmental information for public awareness and capacity building as well as the strengthening of economic policy and planning systems necessary for Pakistan to meet its obligations under the international conventions seeking to address the global challenges in relation to biodiversity loss, climate change, desertification and others.
4. Over the years, with support from the donor community, Pakistan has made significant investments to strengthen environmental information management systems. Starting with Sustainable Development Network of Pakistan as one of the first providers of internet and email services, such initiatives included Pakistan Development Gateway, development of provincial environmental profiles, Pakistan Water Portal, Pakistan Weather Portal, National Environmental Management Systems (NEMIS), National Disaster Management information System (NDMIS) and many others. However, project-funded, most of these initiatives suffered from lack of sustainability. Also, the fragmented approach didn't address the need for a comprehensive environmental information management system that will enable informed policy making, planning and reporting on a consistent basis. A lot has happened but a lot remains to be achieved.
5. The project is thus in full conformity not only with the needs and priorities of the Government of Pakistan but also with the priorities of GEF and UNDP. It falls under the GEF -5 Focal Area of Cross-Cutting Capacity Development, addressing all of its five objectives but notably the second, 'to

generate, access and use information and Knowledge' and the third, 'to strengthen capacities to develop policy and legislative frameworks'. The project also sits neatly with the UNDP strategic priority of 'Strengthened national capacities to mainstream environment and energy concerns into national development plans and implementation systems' and with its country program outcome: 'Commitments under global conventions on biodiversity implemented'. In fact there is a strong convergence of interests in enabling Pakistan to secure the sustainability of its long term economic development by protecting its natural resource base and to enhance its global contribution to environment and sustainable development.

6. The project strategically focused in that it seeks to address the root causes of environmental considerations escaping economic planning and development. It is targeting sectors and institutions where capacities and actions are most needed and where success and impacts are more likely. These include entities responsible for economic and environmental planning and management, as well as those that shape public and political opinions that are fundamental to the success of environment-development integration. Although the project's interventions will mainly focus on CBD, UNFCC, and CCD, its successful implementation will enhance the country's overall capacity to meet its obligations under other conventions as well. The project builds on the foundation laid under the recently concluded NEMIS project leveraging 7-years of efforts jointly made by Government of Pakistan, UNDP and the Netherlands with an investment of more than USD 2.2 million provided by the later.
7. The project is innovative and transformative in introducing a market based approach to the generation and supply of environmental information both as a measure of efficacy and long term sustainability. In contrast to traditional capacity building efforts targeted to environment functions, this project will reach farther to build capacity in economic sectors and to engage polity as the critical determinants of environmental success anywhere; and more so in the developing world. Moreover the project will be pilot testing some new modules to address the issues of data quality that don't lend themselves to easy management in a developing context.
8. The UNDP Country Office in Pakistan is the implementing agency for this project and the project will be developed in accordance with agreed policies and procedures between the UNDP and the Government of Pakistan. In keeping with the GEF rules and procedures, UNDP will establish the necessary planning and management mechanisms and facilitate government decision-making to catalyze implementation of project activities and timely delivery of project outputs. Building on the work of the NEMIS project, the project will be implemented in close coordination with other contemporary initiatives in the country, especially those supported by the Global Environment Facility (GEF) for greater synergy and effectiveness. These include, among others: Sustainable Urban Transport Project (PAKSTRAN) (supported by GEF); and the CBD Clearing House Mechanism, (supported by WWF, UNEP and GEF).
9. The project's **overall goal** is 'Generating Global Environmental Benefits from Improved Decision Making in Pakistan. Its specific **objective** is 'to remove the barriers to environmental information management and mainstreaming global environment concerns into economic decision making'. The objective is two-fold in its focus, one related to environmental information, and the other to employing this information for improved economic decision making. Thus the project has **two components** of: (a) establishing a robust environmental information management system; and (b) stimulating commitments and filling gapes in capacities for integrating environment and development as laid down in PIF. However, as clarified in the introduction, the first focus on environmental information is composite in nature and has therefore been divided into two separate but related outcomes for an effective implementation. Accordingly, the project will have three interrelated **outcomes**:

    (1) Regular availability of consistent and reliable environmental data;

(2) A coordinated and robust environmental information management system, and,
(3) Enhanced commitment and capacity for sustainable development planning and legislation

10. These outcomes will be perused in tandem because the progress in one will support the work in the other. Availability of reliable data is fundamental to a robust information management, synthesizing data into useful information is essential for informed decision making, and this will only happen if there is adequate commitment and capacity to do so. Likewise, a commitment to integrating environment and development will generate the demand for the required environmental information. An adaptive approach, including sustained dialogue with key stakeholders, will be key to successful project management. An inception workshop within two months of the project management will be a major step in this effort to sharpen and adapt the project outputs, work plan and budgets and to cultivate stakeholders' ownership for their sustained support to implementation.
11. In describing the project outcomes, outputs, strategies and implementation arrangements the terms 'environment' or 'environmental' have been used to refer to the three Rio 1992 conventions collectively. The use of these broader terms should not be interpreted to unduly broaden the scope of the project. The project's undiluted focus shall remain on the three Rio conventions.

A.2. Key Indicators, Assumptions and Risks

12. Section D.3.b provides details of the key project indicators, assumptions and risks. Overall, assuming the government and stakeholders' support for the project as indicated before and during the project preparation continues, a smooth project implementation is expected. Yet a few risks are anticipated and addressed in the project design. The key ones are summarized in the following paragraphs.
13. One risk stems from the need for greater mutual trust that typically characterizes a devolved or federated administration: provinces wish more devolution of power and authority and federation is keen to ensure effective functioning of the state. The protracted debate on these issues led, in 2012, to the 18th Amendment in the Constitution of Pakistan whereby, among other things, the subject of 'environment' was devolved to the provinces. This has opened up questions as to the extent and process of coordination between the federation and the provinces. Areas such as costal environment would require a collaborative effort but who takes the lead when and where remains to be clarified. It is this new governance paradigm that some believe hindered the full realization of the outcomes of the NEMIS project. While these issues will no doubt sort themselves out in due course, the project design has sought to reduce or mitigate some of associated risks for the implementation of this project (for details see section D.3.b).
14. Related is the risk of effective coordination in a project that is multi layered involving various divisions of the deferral government, different departments of the provinces of Punjab and KPK, and other stake holders. The overall project management and coordination structure premised on multiple coordination committees and actions at sub-component level than at the central project level alone significantly mitigates the risk of complex and cumbersome coordination. However, coordination among the organizations and stakeholders of the EMIS that the Pak EPA is tasked to implement will require greater attention. The sheer number of organizations who are contributing information and making their portals and data basis available to EMIS is potentially large. Adding the organizations that gather and report primary data further increases this number. Several recommendations have been made to address this need later in this document.
15. In countries like Pakistan with a large number of its population still requiring access to basic amenities of life, there is a general preference for external aid to funds 'brick and mortar' projects. Institutional and capacity building project are relatively less attractive, although necessary. The questionable impact of some of the past capacity building efforts through donor projects hasn't helped much to change this perception. Such a perception could potentially dampen stakeholders' enthusiasm to

participate in the project and support it. To address this risk, the project design is based on leveraging existing structures than creating new ones, creating value added for all implementation partners, and most importantly, addressing some of the key barriers to environment-development integration that many of the past efforts ignored or circumvented or marginally addressed.

16. In consultations during the project preparation mission, most stakeholders came across very enthusiastic and supportive of the project goals, ideas and approaches, however, some were less so., partly for the reasons mentioned at (3) above. However, there may well be issues ownership and internal organizational politics in play. Even if a minority, depending on where these patches of 'cold shoulder' are, they can hinder successful project implementation. The project's structure, based on clear allocation of roles and responsibilities and creating an enabling environment, seeks to mitigate this risk. However, it will be important for both UNDP and the project management to continue to cultivate deeper ownership of the project and its outcomes among the relevant stakeholders.

B. Introduction – Few important Clarifications

17. This is the Project Document (Pro Doc) for the GEF Medium Size Project (MSP) for 'Generating Global Environmental Benefits from improved Decision Making in Pakistan'. It is based on the approved Project Identification Form (PIF) that was developed in 2013 and the subsequent research and stakeholders' consultations undertaken for the purpose. PIF outlined two key components which would correspond to the key outcomes of the project. These were: enhanced decision making at the federal and local level through the use of environmental management systems and knowledge; and, strengthened capacities for policy and legislation development for achieving global benefits. However, during the process of consultation and preparation of the Pro Doc, it became evident that the first component was a composite outcome that would be much better addressed by breaking it down into two, one dealing with the issues of dada generation, availability, flow and reliability, and the other with the information management system as such. Thus, while adhering to the PIF identified components, the Pro Doc is organized around three inter related outcomes, namely: (a) regular availability of consistent and reliable environmental data; (b) coordinated and robust environmental information management system, and (c) sustained commitment and capacity for sustainable development planning and legislation. Likewise, many of the PIF outputs have been carried through the Pro Doc, but some more have been added and some further refined.
18. The project's focus is on the three Rio 1992 multi-lateral agreements on biodiversity, climate change and desertification. However, for the convenience of reading and avoid repetition, the terms 'environment' or 'environmental' are used to refer to them together. Thus, when the project document talks of integrating environment and development, it essentially means integrating biodiversity, climate change and desertification consideration in economic decision making. Accordingly, all research, awareness, capacity building and other efforts under the project will foremost be targeted to the effective implementation and reporting against these conventions. The use of the terms 'environment' or 'environmental' should not be interpreted to unduly expand the project scope or dilute its focus on the three Rio Conventions.
19. The successful implementation of this project is heavily dependent on the recently concluded UNDP-Dutch supported project popularly called National Environmental Management Information Systems (NEMIS Project). Since an effectively operating environmental management information system is a major focus and requirement of this project, there is risk of the use of similar terms causing confusion. For necessary clarity, in this Pro Doc, the terms NEMIS refers to the previously concluded project, and the term EMIS (Environmental Management Information Systems) is used instead to characterize the requirements of an effectively and sustainably operating environmental management information system in Pakistan.

20. Some of the outputs and indicators are consciously ambitious. They would be achievable if a devolved implementation through the components coordinators, as recommended later in this document, is carried through. It will cost more in coordination but will magnify the impacts of the project investment considerably, if not many folds. However, it will be useful to review and rationalize these targets at the project's inception workshop in the beginning to ensure there are no misplaced expectations.
21. Finally, this document has greatly benefited from the information carried in other documents notably the PIF and some other similar GEF projects as noted in the references at Annex 12. Their contribution is gratefully acknowledged.

C. Country Ownership

C.1. Country Eligibility

22. Pakistan is an eligible country for GEF Support. It is signatory to several multilateral agreements in environment including the three major Rio1992 agreements of Conventions on Biological Diversity (CBD) , United Nations Frame Work Convention on Climate Change (UNFCCC), and the convention on Combating Desertification (UNCCD). Ramsar Convention (1978), the Bonn Convention on Migratory Species (1987) and the Convention on International Trade in Endangered Species of Wild Fauna and Flora or CITES (1976) are some of the other important conventions Pakistan is party to. This signifies the country's interest and commitment to address the key challenges of environment at home and to contribute to the stability and sustainability of global environment. The development and implementation of National Conservation Strategy 1992, Pakistan Environment Action Plan 2001, National Biodiversity Strategy and Action Plan (2000), Pakistan Forest Policy (2001), Pakistan Environment Policy (2005), an explicit mention of environment in the Pakistan's Rural Development Strategy and 10th Development Plan (2010 -15), and Climate Change policy 2012 are all manifestations of this commitment. 'Integrating climate change policy with other inter-related policies' is one of the main objectives of the climate change policy, and a robust and functioning environmental information system would be a key to achieving this as well as the other objectives of the policy.
23. At the provincial level too, the project is aligned with the government priorities. It will complement their past efforts (provincial conservation strategies and environmental profiles) as well as their current future plans exemplified by the projects for developing the Environmental Profile in Punjab and Green Development in KPK, among others.
24. The project falls under the GEF -5 Focal Area of Cross-Cutting Capacity Development. It exceptionally addresses all of its five objectives, more notably the second, 'to generate, access and use information and Knowledge' and the third, 'to strengthen capacities to develop policy and legislative frameworks'. The project also sits neatly with the UNDP strategic priority of 'Strengthened national capacities to mainstream environment and energy concerns into national development plans and implementation systems' and with its country program outcome: 'Commitments under global conventions on biodiversity implemented'. In fact there is a strong convergence of interests in enabling Pakistan to secure the sustainability of its long term economic development by protecting its natural resource base and to enhance its global contribution to environment and sustainable development.
25. The project was identified as a priority by GOP and has been endorsed by the GEF Operational Focal Point in a letter to the GEF. The project was formulated through an intense process of consultation with stakeholders that identified with the needs for effectively integrating environment and development supported by a functioning environmental management information system.

C.2. Country Driven-ness

C.2.a. National Capacity Self -Assessment

26. National Self-Assessment for Pakistan (NCSA) was completed in 2008. It was one of most thorough reviews undertaken of the three multilateral agreements from Rio, what they entailed, what was done for their implementation, and what capacities ought to be built. Interestingly, the themes of capacity building for environmental information, public awareness, and integration of environment in economic planning and development surfaces across all the three MEAs of biodiversity, climate change and desertification. The NCSA highlighted the lack of capacities, infrastructure and adequate technologies to meet the obligations under UNCBD, UNFCCC and UNCCD at individual and institutional levels.
27. For example, for CBD, NSCA recognizedlack of operational/infrastructural capacities and low level of training as key capacity gapes for the CBD implementation at the institutional level. For UNFCCC, it recognized weak capacities for climate related forecasts and early warning systems. It further noted that 'There exist capacity gaps in dedicated and coordinated forest information system/ GIS based forest resource accounting and monitoring system to assess the extent and impacts of desertification....'. It went on to say that 'Most of the institutions are implementing their projects in isolation.....' Understandably the NCSA first strategic recommendation is that '...a very close Inter-sectoral linkage among relevant sectors including those related to agriculture, rural poverty alleviation, water resource management, industries, forests, livestock poultry and the environment should be developed'. And, the conclusion of the report with lessons learnt began with the difficulties the NSCA itself faced in securing data and information. These very considerations from the NCSA have stimulated and infirmed the design of the project and make it truly strategic for the country's ability to implement MEAs and develop sustainably.

C.2.b: Sustainable Development Context

28. Pakistan is situated on the cusp of West, East and North Asia that in turn defines the diversity of its ecosystems ranging from the coasts and mangroves to deserts, irrigated basins, temperate forests, pastures and permanent snow fields. Host to the unique place of the world where three of the world largest mountain ranges of Himalayas, Karakorum and Hindu Kush meet, its geography is not just visually exciting but also intriguing for intellectual enquiry. The country's glacial melts feed the Indus river system that makes Indus Basin as one of the world most fertile and productive area in what would otherwise be a desert with very low and erratic annual average rainfall. This also signifies the importance of environment for Pakistan more than for any other country. The largely agrarian economy is dependent on irrigation water supplied by its river system that are both a blessing and a recurrent threat as the frequent high-intensity floods attributed in part to climate change extensively damages farmlands, irrigation infrastructure and means of communications. The dilemma facing the country is that while it must lift the majority of its population from a life of economic deprivation, it must inevitably conserve its natural resource endowment that underwrites its economy, and find as well the fiscal space and resources to do so. This for most part explains the environmental movement characterizing Pakistan over the past several decades.
29. Pakistan has a long history of environmental management manifest in its extensive irrigation network and inter-basin transfer of fresh water that few other countries have experienced. However, it was the preparation and launch of a very comprehensive National Conservation Strategy (NCS) that put Pakistan in spotlight. Regarded highly for its inclusivity, scope, quality and content, NCS remains the most authoritative source of environmental information in the country. The overarching theme of the Pakistan NCS was that environmental issues are interrelated and that environmental problems can't be addressed in isolation from the issues of broader economy. The NCS therefore sought to

integrate environment and development, not surprisingly so considering the very development of the NCS was overseen by the Planning Commission of Pakistan.

30. It was therefore that the approval of NCS led to the creation of some key institutions, notably NCS Unit in the Ministry of Environment, Environment Section in the Planning Division, and Sustainable Development Policy Institute. This was followed by the creation of environment sections in the provincial planning and development departments, strengthening environmental laws, and capacity building of environment protection agencies at the federal and provincial level. IUCN in Pakistan, as the key non-governmental organization, enabled the development of NCS that involved other NGOs as well. The NCS process strengthened the conservation movement in the country as exiting NGOs grew stronger and new ones came to exist.
31. These institutional developments was premised on the integration of environment and development seen essential or a country like Pakistan requiring economic development in the face of the imperative of conserving its natural resource endowment that fueled its development. Unfortunately, due to geo-political reasons, the ensuing decades saw both economic development and the environment suffer, the later more so. To their credit, environmental players both inside and outside the government kept the debate alive, and donor support prevented the environment from going into oblivion. It was helped, ironically, by the natural disasters and floods whose impacts were believed to have been accentuated by Climate Change. However, this wasn't enough to see the goal of environment-development integration materialize.
32. In part, the challenges are attributed to the lack of reliable and consistent environmental information that is regularly available. This problem was recognized in NCS and picked by all the subsequent initiatives of National Environment Action Plan, Provincial Conservation Strategies and other policies leading to funding of various projects to strengthen environmental information management systems. Starting with Sustainable Development Network of Pakistan as one of the first providers of internet and email services, such initiatives included Pakistan Development Gateway, development of provincial environmental profiles, Pakistan Water Portal, Pakistan Weather Portal, National Environmental Management Systems (NEMIS), National Disaster Management information System (NDMIS) and many others. However, project-funded, most of these initiatives suffered from lack of sustainability. Also, the fragmented approach didn't address the need for a comprehensive environmental information management system that will enable informed policy making, planning and reporting on a consistent basis. A lot has happened but a lot remains to be achieved.
33. A related issue is of gender mainstreaming. Several socio-cultural factors have tended to slow the progress of bringing women into the economic mainstream. Women do farm a major part of the workforce at the farm level and increasingly of the education and health sectors but progress elsewhere has been slow. The government and NGOs are seeking to bridge the deficit but the country has a long way to go in this direction.
34. If there is one thing that will dramatically alter the balance in favor of sustainability of economic development in Pakistan, like elsewhere in the world, it would be the enhancing and sustaining of political commitment to do so coupled with the mainstreaming and empowerment of women that are often the custodians of environment and first afffectees of environmental degradation. Pakistan is fortunate in that several of its parliamentarians are not only aware of the environment issues but they are rooted in environmental movement of the country; some women parliamentarians particularly standout. Pakistan is a signatory to many of the multilateral environmental agreements which is an indication of the political desire to join hands with members of the global community to secure the future of the world. However, integrating environment and development is seldom seen expedient. There is a belief or a notion that the country's obligations under the multilateral agreements can be fulfilled without fundamentally re-thinking development. The business as usual

continues. The myth that environment is a luxury that can wait until economic development is achieved hasn't disappeared.

35. Many of the stakeholders attribute the paucity of success of past capacity building efforts and all the institutional development since 1992 to politicization of economic development. Development is by definition political and understandably so but it starts hurting when political expediency begins to impede or override sustainability considerations in economic development. The earlier capacity building efforts have tended to ignore or circumvent this reality, focusing instead on the symptoms. Enhancing and sustaining political commitment is imperative and will only be possible to achieve by directly engaging the polity and building the public opinion. Political leaders seek to deliver what the voters are understood to want. Reaching out to people and media are perhaps the best tools to generate such a popular demand and support for long term sustainability.
36. Pakistan is one of the few countries in the world with a vast diversity of ecosystems functioning over a relatively small area. These include, among others, coastal and marine ecosystems, mangroves, Indus delta, riverian forests, dry tropical thorn forests, irrigated plantations, tropical deciduous forests, subtropical broad lever evergreen forests, sub-tropical pine forests, dry temperate forests, moist temperate forests, sub-alpine forests, alpine pastures, glaciers and permanent snow fields, Trans-Himalayan Alps and Plateau, nature lakes, and man-made reservoirs and wetlands. Three of these ecosystems are considered critically endangered: tropical deciduous forests of Himalayan Foothills; moist and dry Himalayan temperate forests; and Trans-Himalayan Alps and plateau.
37. These ecosystems are hosts to a wide variety of fauna and flora. Several of the animal species are globally endangered mammals including some high profile species like snow Leopard and others such as Markhor, LadakhUrial, Musk Deer, Kashmir Grey Langur, Asiatic Black Bear, Himalayan Brown Bear, Eurasian Lynx, Common Leopard, Eurasian Otter, and woolly flying squirrel considered to have become extinct until a few years back. Likewise several of the bird and plant species are also endangered. And then there are species such as wild relatives of wheat, millets, pea and fruits making an invaluable part of the global genetic gene pool. Up to date information about these species and the country's biodiversity in general is seldom available mainly due to lack of resources for research. The available knowledge is often dated, fragmented and not easily accessible.
38. Much less recognized but a highly significant issue is of natural resource interplay between different countries of the region, manifest in cross border trade and economic flows. For decades Afghan timber had been feeding the Pakistan construction market but seldom its implications for biodiversity conservation have been studied or reported. The ongoing discussions between Pakistan and its neighboring countries about energy cooperation would have enormous implications for what happens to the remaining natural forest of Pakistan and the plantations that have been established in recent times. Likewise, there would be similar economic and environmental consequences in other countries. Understanding and addressing the implications of any such international cooperation and trade is globally important, and would only be possible if an adequate environmental information management system is in place. The bigger challenge is of internalizing environmental concerns in such mega development projects. The interventions and support contemplated under this project is hoped to enable doing so in future.
39. A successful implementation of this project, in an environment characterized by such a rich and complex mix of ecosystem and institutions paralleled by high population densities would not only significantly benefit the country but will also be an invaluable contribution to global knowledge and capacity for environmental management.

C.2.c. Policy and Legislative Context

40. Pakistan's environmental policy and legal context has significantly evolved over the years. Several of the environment related legislations such as Pakistan Forest Act and Irrigation Act date back to the

time before the creation of Pakistan in 1947. Many other policies and legislation have been enacted since then.

41. Shortly after the 1972 Stockholm Summit on Environment, Pakistan rewrote its constitution in 1973 backed by a strong consensus in the country. In the ensuing years, environmental movement gathered movement globally and in Pakistan leading to the enactment of the Pakistan Environment Protection Ordinance in 1983 that was later replaced by a more comprehensive Pakistan Environment Act 1997.This was paralleled by complementary legislation and policy development at the provincial level. It was through these legislations that the environment protection agencies were created at the federal and provincial level. Establishment of National Environmental Quality Standards and Environmental Impact Assessment requirements for development projects are important parts of the country's environmental architecture. Meanwhile some of the previous legislations such as the Forest Act have continued to be updated and new significant legislations such as National Drainage Act 1997 and provincial wildlife acts introduced. Much of this was enabled by the process and outcome of the Pakistan National Conservation Strategy. The provincial conservation strategies that followed have served as the provincial policies on environment.
42. Pakistan is signatory to many of the environment related conventions including the three major Rio conventions on climate change, biodiversity and climate change. It also ascribes to the Millennium Development Goals. These global commitments are integral to the country's policy context as Pakistan seeks to internalize its international obligations in its domestic policies and laws. A midterm review of the NCS in 2000 was a milestone in Pakistan's environmental journey highlighting awareness-raising and institution building as the key achievements but signaling the fading of interest in environmental issues and calling for a revival of the spirit of NCS. This led to the creation of a National Environment Action Plan (NEAP) aimed alleviating poverty through environmental improvements. At the same time Biodiversity Action Plan (BAP 2000) was adopted that ought to further the goals of NCS and NEAP in the area of biodiversity conservation.
43. It was the time when attention returned to the issues of poverty more significantly. Pakistan launched its Poverty Reduction Strategy Paper (PRSP) in 2003. Owing to the strength of environmental movement and awareness in the country, PRSP acknowledged that environmental degradation and prevailing poverty were inter-related. In 2005, Pakistan launched its environmental policy with a purpose to "protect, conserve and restore Pakistan's environment in order to improve the quality of life of the citizens through sustainable development". The Policy called for Pakistan to develop strategies and programs to address the capacity issues at the national and local levels in order to fulfill the requirements of global environmental commitments. This remains the current policy framework although a separate Climate Change Policy has been launched in 2012.
44. Pakistan Environment Protection Council headed by the Prime Minister of Pakistan is the highest policy making body for environment, complemented by other institutions such as the National Council for the Conservation of Wildlife. For the integration of environment in economic development more relevant is the Central Development Working Party (CDWP) that, coordinated by the Planning and Development Division, approves most of the public sector development projects requiring federal and donor funding. The Executive Committee of the National Economic Council (ECNEC) considers and approves large national projects. At provincial level, departments of planning and development and finance play similar roles. The respective line departments of forest, wildlife, agriculture, fisheries, irrigation, agriculture, public health and environment protection agencies are meant to be the custodians of their components of the environment.
45. Any discussion of the Pakistan policy and legal context would be incomplete without mentioning the exceptional leadership role that environmental non-governmental organizations have played in the country. These include both international and national NGOs that have carried bulk of the burden

and responsibility in sustaining environmental movement in Pakistan. They have not only provided research support but have helped build capacity and have continuously brought to attention the issues of environment. The donor community has continuously supported Pakistan and its civil society in their efforts to address the issues of environment. They don't write the country's environment policy but they remain influential as the friends of Pakistan.

46. Chapter 16 of The Pakistan Economic Survey 2013-14 published by Government of Pakistan dealing with 'Environment' summarizes the current thinking in term of environmental policies and plans. Recounting the environmental challenges of the country ranging from water and air pollution to climate change, watersheds' degradation, rapid urban urbanization and inefficiency in resource use, the report specifically alludes to the imperative of integrating environmental and social concerns in economic development. It notes that 'Linking natural resource based livelihoods to production of ecosystems services, the green economy can reduce poverty and enhance environmental sustainability'. It also mentions the creation of the Ministry of Climate Change and the Prime Minister's Committee on Climate Change that specifically seeks to further climate change mitigation and adaption. In fact, the Pakistan's Climate Change Policy, adapted under the auspices of the Ministry of Climate Change in 2012, is the latest policy instrument in the area of environment. Concluding with the way forward, and echoing the country's climate change policy, the report recommends capacity building of the key stakeholders to enhancing their abilities to understand and address the impacts of climate change. It calls for assessing vulnerability of different ecosystems to climate change, preparedness for risks and disasters arising from extreme climate events and the creation of a climate fund alleviate adverse impacts and bolster resilience.
47. In summary, all policies and laws and all stakeholders' opinions converge on the importance of building human resource base, strengthening research and knowledge, and integrating environment and development. None of this would be possible without establishing an effective and sustainable environmental information management system, developing requite institutional capacities, and generating popular and political support that together will ensure longer term sustainable development of Pakistan. Seeking to support these needs, this project is not only well rooted in the country's policy and legal context but serves to further the aims and objectives of these policies.

C.2.d. Institutional Context

48. The subject of environment was on the list of concurrent subjects of policy and legislation under the constitution of Pakistan. This essentially meant a great potential for plurality of environmental actions across various jurisdictions of the country. It was therefore that the launching of NCS saw several sub-national initiatives emerge, although they faded with time as some new ones emerged. At a practical level, it led to fragmentation that made coordination complex and access to coherent information from a single source necessary yet difficult.
49. The 18th Amendment to the Constitution of Pakistan has devolved the subject of environment to provinces that, although well intended and potentially empowering of the constituent jurisdictions, has added to the complexity of environmental mandate accentuated by new challenges resulting from the amendment. For example, how the mandate for costal protection and conservation should be shared. It can't be accomplished alone either by the provincial governments or the federal government. Likewise, Pakistan as a country is a signatory to international environmental conventions and obliged to report to them. While this responsibly rightly rests with the federal government, its ability to assure and report compliance now ever more depends on the preparedness of the provinces.
50. Attaining greater clarity in the distribution of mandates and role is inescapable and may as well warrant a re-examination of the 18th Amendment but discussing this further would be beyond the scope of this project. Nonetheless, it is important that the project interventions take this

development into account. Thoughtfully implemented, the project results and processes may very well contribute to attaining the requisite clarity and instituting a system that works well in conformity with the constitution.

51. Understanding the institutional context for this project warrants a clear distinction between data, information and decision making. For the purpose of this project, data is defined as raw facts collected and presented as such. Data by itself is free of any judgment. Pakistan has 3% of forests doesn't necessarily says it is good or bad. On the other hand, when data is interpreted or a value judgment is assigned to it, it becomes information such as the 11% of Pakistan being in protected areas is slightly under the required 12%. Information by itself, no matter how telling, doesn't alter decisions. It is consciously employing useful information that helps informed decision making. Equally important, information shapes opinions which influence decision making. This is perhaps one of the most critical factors to address for creating and sustaining political commitment to integrate environment and development.
52. Typically, the data on different aspects of environment are mostly generated and gathered by the field establishments of the relevant provincial government departments such as agriculture, irrigation, forest, wildlife and public health. Alongside using this data for their own planning and policy making, these departments provide their data to their counterparts in the Federal Government (e.g. agriculture) and to the provincial bureaus of statistics who feed it onward to federal bureau of statistics. Some data such as on emissions and effluents are generated by provincial and federal environment protection agencies centrally. The bureaus of statistics may also run their own surveys. Apart from the data sourced and published by bureaus of statistic, other data collection and sourcing is seldom coordinated. It is here that the element of inconsistency begins to enter the data regime. Depending on when, where and who from a data is sourced, different reports often carry different data that may vary by small or large margins.
53. The federal Bureau of Statistics does produce a Compendium of Environmental Statistics of Pakistan. The last one was produced in 2010. The next one is contemplated for publishing this year. However, few people know that this exists; even fewer use it. This results in duplicating efforts when the different organizations seek to source similar data on their won. There are questions as to the completeness and quality of data but this should not shadow the exceptional opportunity in supporting the Bureau of Statistics to collect and publish environmental data regularly, filling any gaps and improving the quality of data along the way.
54. While the bureaus of statistics can pool data sourced from multiple sources they don't necessarily translate it into information. The information results from synthesis, interpretation and research that the government departments and divisions, think tanks, research organizations, academia and non-governmental organization dealing with the subject of environment undertake. The capacity to generate environmental information varies. It appears, environmental NGOs, environment protection agencies, some strategic entities such as Space and Upper Atmospheric Research Organization (SUPARCO), Metrology Department, Water and Power Development Authority (WAPDA), National Disaster Management Authority (NDMA) and focal points of the various multilateral conventions would have more of the capacity to generate and hold information. Updating the information and keeping it accessible and handy for decision making is a common issue, more so for the government organizations. In fact, the systems generated and resourced with donor funds have been hard to sustain after the project funds dried up.
55. Related is the issue of who needs and uses the environmental information for decision making. In this respect, people in most need are those who initiate the development of government policies and plans or those who have the responsibility to review or approve them. These are midlevel officers from the Secretariat and Civil Services of Pakistan who man these positions by rotation and

are subject to frequent transfers that defies efforts of formal or on the job training that some of the past projects have sought to provide with varying impact. Most critical role is played by the planning and development departments in the provinces and Planning and Development Division at the federal level. These departments too are affected by frequent transfers but they have relatively more institutional stability and memory as far as environment-development integration is concerned. Even if frequent transfer would not be an issue, capacity constraint will remain due to few hands having to deal with tens if not hundreds of project proposals. An obvious suggestion would be to add more staff in these functions but, given the resource constraints, it is not much likely and much less sustainable in terms of effective capacity.

56. Normally, an effective project review and screening capacity would suffice to secure the future of environment by effectively integrating it in economic development. This is possible. Some people continue to argue for more guidelines but a lot of guidance is already there and checklists in place for screening development projects as are the elaborate guidelines, environmental quality standards and legislation for environmental impact assessments when such projects are designed. Yet much remains to be achieved in terms of successfully integrating and development.

C.2.e.Barriers to Achieving Global Environmental Objectives

57. Barriers to achieving global environmental objectives have been discussed in the context of the issues covered in the preceding sections assuming that good for the country in good for the world that environmental issues of Pakistan are a part of the global environmental challenges, and that Pakistan has to play an important part in achieving the global environmental objectives as embodied in the various environmental conventions. Repeating the discussion is neither needed nor needed. In summary, lack of capacity is indeed a constraint to effective implementation of environmental management and sustainable development in Pakistan. The policies and legislation themselves are not a major constraint. Yes, some of the country's laws are dated but many of the updated and recent policies and laws are relatively modern and respond to Pakistan global obligations. The case for more legislative reforms is premature. Even if the existing policies and laws are adequately implemented, bulk of the country's environmental challenges will begin to be addressed. The main capacity constraint is of human resources. Pakistan neither has nor can afford to recruit and retain enough of the technical capacities under the current business model of having all essential capacities in house. An alternate approach is needed.
58. Related is the focus of capacity building efforts that have tended to target environment functions in the public sector. Few as the experts may be in the environment departments and divisions, they tend to be skilled, trained and competent although there can always be room for improvement. Where environment knowledge and understanding is most needed and yet highly scarce are the departments and ministries dealing with economic development. The past capacity building efforts have paid little if any attention to this pressing need and a major obstacle to mainstreaming environment in economic development.
59. Finally, human resource capacity in government departments is only a part of the solution. Even in best of the circumstances, such capacities can only be effective in an enabling political environment that is severely constrained by public opinion and political understanding that is inadequately informed and much less convinced of the environmental and sustainability imperative of economic development. There is widespread perception that the issues of environment can be addressed once we have developed economically. This perception needs to be addressed for the sustainable development to take roots.

D. Programme and policy conformity

D.1. Program Designation and Conformity

D.1.a: Conformity with GEF

60. Apart from thematic areas of biodiversity, climate change, land degradation and others, GEF also works in several cross cutting areas. One of them is capacity development that this project belongs to. As for other work areas, GEF has developed a strategy for capacity development under GEF-5 called the Cross Cutting Capacity Development Strategy (CCCDS) with various program frameworks guiding the formulation of relevant projects. These program frameworks for capacity development fall under five main objectives:

    A. To enhance the capacities of stakeholders to engage throughout the consultative process
    B. To generate, access and use information and knowledge
    C. To strengthen capacities to develop policy and legislative frameworks
    D. To strengthen capacities to implement and manage global convention guidelines, and,
    E. To enhance capacities to monitor and evaluate

61. This project exceptionally addresses all of the five objectives of the GEF -5 program framework for Cross-Cutting Capacity Development. The second objective 'to generate, access and use information and Knowledge' is relevant. The projects seeking GEF support under this objective would 'target the important need for improvement management information and decision support systems' and 'would seek to improve decision-making for the global environment through improved use of information and knowledge'. Equally relevant is the third objective that focuses on capacity development at the organization and systemic levels. The projects under the program framework for this objective would seek to' maximize synergies among the policies....governing the management of biodiversity, climate change and land degradation' and integrate 'global environmental priorities into national policies, plans and programs, particularly macro-economic and poverty reduction strategies/programs'. This project aims for what is contemplated in the program frameworks for these key GEF objectives for cross cutting capacity development.
62. Annex to the GEF's 'STRATEGIC APPROACH TO ENHANCE CAPACITY BUILDING (2003)' lists the following operational principles for capacity building that are carried through the project strategy and design as would be noted in project design outlined in Section D.2.

    (a) Ensure national ownership and leadership
    (b) Ensure multi-stakeholder consultations and decision-making
    (c) Base capacity building efforts in self-needs assessment
    (d) Adopt a holistic approach to capacity building
    (e) Integrate capacity building in wider sustainable development efforts
    (f) Promote partnerships
    (g) Accommodate the dynamic nature of capacity building
    (h) Adopt a learning-by-doing approach
    (i) Combine programmatic and project-based approaches
    (j) Combine process as well as product-based approaches
    (k) Promote regional approaches

63. Considering that the realization of the GEF programmatic objectives in biodiversity, climate change and land degradation is dependent on an adequate information management systems and capacity to integrate these objectives in environmental and economic policies, a successful implementation of this project would harness synergy in achieving national priorities under the relevant conventions.

64. Cross-Cutting Capacity Development is hard to measure. Quantitative targets are hard to establish and even harder to objectively assess unlike other aspects of capacity development such as for reduction of carbon emissions or water pollution. Therefore CCCD projects are often measured by output, process, and performance indicators as proxies of improved capacities for environmental management. Nonetheless, in this project, efforts have been made to establish quantitative targets and indicators where reasonably possible.

D.1.b.Guidance from the Rio Conventions

65. All the three Rio Conventions recognize the imperative of capacity building for their implementation call on the Parties to do so and provide guidance for the purpose. To this end, six types of capacities are recognized: stakeholder engagement, organizational capacities, environmental governance, knowledge and information management, and, monitoring and evaluation. More relevant to this project are:

(a) Organizational Capacities: Building capacities of individuals and organizations to plan and develop effective environmental policy and legislation, related strategies, and plans based on informed decision-making processes for global environmental management (Articles 4, 6 of UNFCC; Articles 10, 13 of CBD; and Articles 5, 9,10, 19 of UNCCD); and,

(b) Capacities for Knowledge Information Management. Building capacities of individuals and organizations to research, acquire, communicate, educate and make use of pertinent information to be able to diagnose and understand global environmental problems and potential solutions. (Articles 4, 5 of UNFCC, Articles 12, 14, 17, 26 of CBD, and Articles 9, 10, 16 of UNCCD).

66. The project interventions responds to the calls for overall capacity building under the three Rio Convention and more so for the capacities listed at (a) and (b) above.

D.2. Project Design

D.2.a. Project Rationale and Baseline

67. The discussion in this section focuses on the current baseline of data, information and capacity as the essentials of project design. Recent efforts in this area and key factors constraining past capacity building efforts are also discussed indicating that this the investment in this project is imperative, strategic and opportune for Pakistan to address its environmental needs at home and to enhance its contribution to addressing the environmental challenges globally.

D.2.A.1. DATA SYSTEM

68. The Rio conventions related data is carried in the respective national reports of the Rio conventions as well as other conventions such as Ramsar convention, Convention in Migratory Species, Convention on International Trade in Endangered Species, and Voluntary REDD+ Database under UNFCCC.A lot of data is already being collected through the routine processes of the government as carried in the Compendium of Environmental Statistics of Pakistan 2010. This includes basic socio-economic data on demography, housing, labor force, land-use in general, farming, water, livestock, forestry, and transport. Also collected is the data of environment related activities such as quality

and export of agricultural commodities, imports of edible oils, fuels, fertilizers, wood and wood products, and export products such as crude oil and petroleum. Interestingly, apart from weather and climate data, the compendium also reports environment specific data such as waste generation, water logging and salinity, groundwater quality and availability, river flows, protected areas, reforested areas, phasing out of Chlorofluorocarbons, and damages by extreme weather events and disasters. The data on infrastructure and indicators in health, education and population planning are collected and reported as well. The essential premise here is that a lot of the data is already being collected involving many different institutions that the Bureaus of Statistics at the federal and provincial level works and coordinate with, and apparently reasonably well.

69. From the stakeholders' consultation and gleaning previous reports, there are obvious concerns about the data being fragmented, patchy and of uncertain quality. The importance of research and information is emphasized in all environmental policies and strategies such as the NCS, Pakistan Environment Action Plan, Forest Policy and Climate Change Policy produced over the years. However, let this not mask the important fact that a system of data collection and reporting is already in place that can be built on and strengthened. In fact, the lack of recognition of this existing system may well be a major omission of the previous projects to build related capacities.

D.2.A.2 INFORMATION SYSTEM

70. Much of the past efforts in environmental information management systems have focused on the information aspect of the equation that is synthesizing data into intelligible information for making informed decision. Several public sector and non-profit institutions have been and are involved in generating environmental information. They include line departments of agriculture, forest, wildlife, fisheries, livestock, irrigation, public health, environmental protection agencies, and others. At the federal level, their counter parts also generate environment related information mostly for use within the respective divisions and for reporting out when needed. Thus, although not always labeled as environmental information, various departments do routinely gather significant environmental information that needs to be more clearly linked and employed for consciously integrating environment and development at the sector level.
71. Ironically, lack of capacity and resources is constraining sustained access to environmental information where it is most needed in the institutions responsible for cross sector coordination and environment-development integration such as P&D Departments in provinces, environment and other sections in Planning and Development Division of Pakistan and focal points for multilateral agreements. Most of the environmental information is periodically generated under projects often implemented through collaborative efforts between the public and non-profit sector. This is exemplified by projects such as Sustainable Development Network of Pakistan (SDNP) implemented by IUCN following the NCS approval in 1992, and Pakistan Wetland Inventory Portal developed by WWF under the Pakistan Wetland Program (2007-2012). This collaboration between the public and private sector represents a major strength of the environmental infrastructure in the country.
72. There are other projects recently implemented or currently underway. One of them is the information management system of National Disaster Management Authority of the Ministry of Climate Change. It is regarded as one of the effectively operating systems. The other one is the recently concluded National Environmental Management Information Systems (NEMIS) project which is a subject of separate discussion later in this section. Land Records Management and Information Systems Project is an important undertaking of the provincial government in Punjab with a potential to make a major contribution to the overall system. Several other public and non-profit organizations produce and maintain components of environmental information management systems such as the GIS facilities of the forest department in KPK, WWF and SUPORCO.

73. Common to all of these initiatives is the primary concern about post-project sustainability. Most projects became history after the donors funds dried up and some of the current ones that seem to work robustly (e.g. NDMA information system) fear the same fate. Any future project must find a solution to address this core issue of post-project continuity if the country is to sustainably benefit from an effectively operating environmental management information system. It must also take into account the fact that a lot of information is already generated but it is fragmented, not easily accessible, and little coordinated. Senior policy makers in particular, not having the time for research themselves, find it hard to access the relevant key information when they need. Researchers invest a major effort in locating and sourcing information.

D.2.A.3 NEMIS

74. The NEMIS project implemented by the Ministry of Environment (now Ministry of Climate Change),with the support of Dutch Government and UNDP, over the seven year period ending 2013, was designed to meet this much felt-need for an effectively operating environmental information management system (EMIS). The project's aim was to develop and implement a comprehensive approach for the collection, compilation, analysis and reporting of environmental data in a systematic manner. This would entail establishing a sustainable network of relevant organizations that are equipped with environmental information technology and share a common data infrastructure for an effective EMIS in Pakistan.
75. According to its terminal evaluation report, the NEMIS project developed the essentials of an environmental information management system but couldn't make it functional. It created several sector and cross sector data basis and produced several draft of environment reports for the provinces and the country but the first Pakistan's State of the Environment Report that the project wished to publish did not happen. Likewise, it created an institutional infrastructure for the NEMIS and a framework of indicators for harmonized data collection and reporting. Comprising of 92 indicators and 435 variables, this framework is perhaps one of the more significant outputs, although it too remained to be notified by the government for its country wide application. The overall opinions about the success of the project are understandably mixed. The project's terminal evaluation rated it overall 'moderately satisfactory'. Nonetheless, NEMIS has laid a reasonably good foundation to build on.
76. The valuation report recommended:
    (a) Nomination of a Focal Agency for NEMIS Pakistan;
    (b) Establshment of NEMIS Directorate at Pak EPA as the future home for NEMIS;
    (c) Conducting key outstanding activities including further assessment of of the 92 framwork ndicators, especially agaisnt the National Environmental Qulaity Stanards (NEQS);
    (d) Notification of Institutional and Technical Framework for NEIMS;
    (e) Completion of the environmental Atlas of Pakistan;
    (f) Making NEIMS functionally operative and live;and
    (g) Preparation of First State of Environment Report for Pakistan.
77. At the time of the stakeholders consultation's for this project, the NEMIS Directorate at the Pak EPA was created, the equipment and resources acquired under the project were transferred to Pak EPA, and Pak EPA had contracted COMSATS to house the server and help maintain the NEMIS. The EMIS remains to be fully functional and operative. Only a part of the information produced and managed by SUPARCO was accessible at the time. While a good foundation laid by the NEMIS work is encouraging and augurs well for the future, concerns remained among the stakeholders if the NEMIS will indeed become functional on a sustainable basis, and if the tasks and outcomes that remained incomplete at the need of the project will be completed. These concerns stemmed partly from the governance situation post the 18th Amendment in the Constitution of Pakistan devolving the subject

of 'Environment' to provinces that requires more clarity. The inability of the NEMIS project to complete the last stages of its work is partly attributed to this reason.

78. The Pak EPA is believed to be the right public sector entity to pursue the EMIS to fruition, however, it is debated how far the operation of the NEMIS may be independent of the agency. A lot of the follow up to the NEMIS recommendation is attributed to the personal interest and initiative of DG, Pak-EPA. In consideration of long term sustainability of NEMIS, it is opportune to benefit from his interest, commitment and leadership but the future of NEMIS is better not made contingent on his continuity but on an institutional arrangement that will last and survive changes in leadership.
79. In this sense, although NEMIS had better completed what it had set out to do, it represents an exceptional opportunity for this project to leverage the investments and outcomes of NEMIS, build on them to help complete outputs that need a last push, and to use that as a foundation to pursue the integrating environment and development as a key focus of this project. Completing the NEMIS outstanding tasks would not require much of the funds under this project but their inclusion in the project would provide them a home and enable their oversight through fruition.
80. Thus, the essentials and building blocks of an EMIS are there (NEMIS, NDMA, Water Portal, SUPARCO, and others). Some such as NDMA are already sub-systems representing a network of websites and portals. Needed is effective coordination capacity managed by a competent information management system professional that is also an astute manager and inspiring leader with a singular focus on attaining post-project sustainability. Making the system operational is less of a challenge in that its building blocks are already there; ensuring its long term sustainability warrants more attention in the design and implementation of this project.

D.2.A.4 CAPACITY TO INTEGRATE ENVIRONMENT AND DEVELOPMENT

81. Environmental information is only a part, and in some ways a smaller part, of the overall paradigm of integrating environment and development, the latter being the aim and the information being a means to achieve it. A lot has been written and done about the capacity building for environment in Pakistan. Recounting all those projects wouldn't aid much value but suffice it to mention that most of these efforts have focused on generating guidance and training as measures of capacity building, and rightly so. The PIF for this projects also talks about creating guidelines but the reality is that, while there is always room for improvement, a lot guidance already exists for integrating environment and development. Pak EPA and Provincial EPA's have the legislative mandates for environmental reviews and assessments; NEQS are already in place; guidelines for environmental impact assessment and approval of development projects are there, and some checklists are available in the provincial and federal planning entities to review the public sector projects before they are recommended for final approval.
82. Therefore the call for more guidance would be premature. Emphasis instead needs to be placed on enabling the use of existing guidance and it is only after the existence guidance has been duly employed one can assess and address the need for additional guidelines. A key enabling factor is the human and technical capacity for integrating environment and development. The past capacity building efforts have rightly focused on institutions like EPAs, planning and development entities, and the ministries or departments of environment. Also, environmental NGOs and thank tanks have acquired and carry significant technical capacities that the governments access on need basis or through collaborative projects. Some of the capacities were indeed built through such collaborative projects. However, this has not been enough.
83. Universities and academia are less engaged, and capacity building projects have missed targeting some key sectors and entities that are fundamental to a successful integration of environment and development. These include line departments in the provinces, and divisions and ministries in the federal government dealing with economic development such as agriculture, communications, ports

and shipping, forests, water and power, to name a few. These are the entities where public sector development projects are often conceived and developed. It is here that the process of environment and development integration needs to begin. The people tasked with projects development and reviews ought to know of the issues of environment they are meant to integrate; and it is here that the environmental knowledge is most scant, and yet most needed. Under this scenario, expectations from them to integrate environment in their policies and plans are misplaced.

84. Planning and Development Divisions and P&D Department have adequate tools but limited capacity to effectively use those tools. The governments can't afford adding enough of more staff. Much of the Pakistan's institutional infrastructure is modelled after the rich countries (such as USA) that can afford to resource essential human resource capacity in-house for the requisite environmental planning and reviews. Pakistan could not and will not be able to afford such an enormous expansion of capacity. Since the launch of NCS in 1992, the capacity for integrating environment and development, even among the relevant planning and development entities and EPAs, has barely increased (if not depleted) despite the increasing demands placed on them by the growth in population and economy. The need is for a fundamental re-think of the capacity building model such that it builds on what is already there without requiring major expansion in the government infrastructure that is hard to finance and even harder to sustain effectively.

D.2.A.5 POLITY AND PUBLIC OPINION

85. Even if all parts of the government functions were best resourced with exceptionally good capacity, integration of environment in development may continue to be evasive. In the decades since Rio 1992, baring a few large projects influenced by NGOs advocacy and help, the system has little to show for projects that changed design or course for environmental reasons. This is in large part owed to two reasons. There is a genuine belief that Pakistan foremost needs economic development, that environment can be a drag on development and, while the country must do all it can to protect the environment and meet its international commitments under multilateral agreements, significant environmental rethink of the economic development model can wait until the country has achieved significant economic growth. Further, while the environmental movement and community in the country has done a lot to be proud of, they have fallen short on convincing the polity that environment and development are not and need not be mutually exclusive, that environment need not be a drag on development, and that integration of environment and development can both save costs and enhance the impact and sustainability of development.
86. This need for better understanding and conviction is also reflected in the fact that many actions for environment are taken on a daily basis because they are rooted in economic wellbeing but these activities are seldom picked up or labeled as environmental improvement actions. To elucidate, irrigation department constructs spurs and diversion dams along rivers mainly to contain the impact of floods and prevent land erosion but these efforts don't make it to the inventory of environmental improvement actions. Huge investments have been made in national drainage program to address water logging and salinity but it is only occasionally referred to as an environmental improvement program.
87. Where Pakistan stands today, getting the polity and senior bureaucracy on board is imperative for environment-development integration in the country. There is enough happening in this regard but environmental rationale and economic contributions of the various improvement actions need to be made more explicit, built on, and employed for enhancing and sustaining the requisite political commitment to integrate environment and development.
88. Related is the issue of public opinion. All environmental reviews, including the midterm review of NCS and subsequent policy and strategic initiatives acknowledge the increased public awareness about environment and emphasize bolstering that effort through research and education. However,

this awareness hasn't resulted in increased public demand for 'environment' that would persuade polity. More than 60% of the population lives below the poverty line of $ 2 per day of income. In 2008-09 more than 40% of the population continued to be illiterate. Most of the literate people live in urban areas while most of the voting population in rural areas. This partly explains why the effort of increasing environmental awareness, focused in the past on workshops, seminars, advertisements in print media has had limited impact on changing public opinion and policy.

89. The use of internet is increasing in Pakistan but majority of the population is unreachable by internet due to low effective literacy rates. Mobile phones are more in common use, have more reach but face the same constraints albeit to a lesser extent. Electronic media, notably the television, and the prolific growth of private TV coverage in Pakistan is a major change. Developments in the recent years signify the influence of the private sector TV networks in shaping the public opinion. Their reach is more universal. People (literate or not and rural or urban) have become accessible for targeted campaigns through such channels. Political parties are using more of the mobile telephone technology to mobilize their workers. If environment-development integration is viewed in longer term, as it must be, private TV and mobile phones would have an important role to play in mobilizing public opinion for them to move from indifference to actively demanding environmentally responsible development from their political leaders.

D.2.A.6 INSTITUTIONAL SYSTEM

90. A lot has been mentioned about the institutional dimension of an effective EMIS in Pakistan and is better not repeated. However, it is important to mention that the 18th Amendment to the Constitution of Pakistan fundamentally altered the institutional and governance baseline nearly two years ago. It has introduced some uncertainty and complexity but it may as well be an opportunity for reform and progress. The perception that the devolution eroded the central government authority for effective coordination and secure compliance and reporting may (not) be real and something to be addressed; but coordination through authority alone always has its limitations. The people will do the minimum necessary but optimizing the benefits of coordination requires demonstration of a value added to the parties involved. During the stakeholders' consultations, provinces appeared enthusiastic and more interested to collaborate and coordinate than perceived. This offers an opportunity for the Ministry of Climate Change, notably the Pak EPA to engage with the provinces in developing and instituting coordination and reporting tools and processes that, while maintaining the spirit of the 18th Amendment, harness synergy and enable effective coordination based on mutual benefits. In fact, it may set a precedent to be emulated by others.
91. Environmental NGOs continue to be strong. From the few that existed around the NCS approval, many new ones have emerged in part reflected in IUCN membership that has reached 35 in Pakistan. These NGOS are filing institutional and capacity gaps that governments are leaving behind. They complement government efforts, and the relation between them tends to be positive. The government deserves the credit for creating the space for the NGOs to evolve and develop and for the support and recognition it has been providing them. More can be harnessed and learnt from this collaboration. One key lesson is that cooperation and coordination requires incentives for the participating institutions to be at the table, to be prepared to play the ball, and be willing to be coordinated. NGOs capacity and operation represents one of the more sustainable sources of supply of information and capacity for environment in the country. Same would also be true of semi-autonomous organization such as SUPARCO and Department of Metrology.

D.2.A.7 FUNDING FOR ENVIRONMENT

92. Environmental information has been a perceived need that donor have been willing to support in Pakistan. However, this support has been project specific, and seldom looked into the overall needs

for an environmental information system. While the past projects achieved a lot, a functioning EMIS being in place as a part of the overall environmental infrastructure remains an unmet aspiration. International funding for environment in Pakistan has been going through waves. There were many environmental projects in nineties but then the donor support tapered off. The interest in Pakistan's environment has resurged but much of the international attention and resources are understandably devoted to address the external and internal security challenges and their underlying socio economic causes characterizing the country. Pakistan itself is also devoting a significant part of its own resources to the priority issues of security and peace.

93. Nonetheless, the Government of Pakistan is seeking to do more for the country's environment and its international commitments. It has committed several years of funding for Pak EPA to complete and follow up on the NEMIS project. Post the 18th Amendment, provinces are also making more allocations for environment. Punjab and KPK are leading the way. Punjab will be investing Rs. 85 million in a closely related initiative of environmental profile of Punjab over the next 3 three years, Likewise, the KPK Government has embarked on a green development program over the next 4 years through the provincial forest department. In an environment where provinces seek to carry the environmental responsibility devolved to them, there are real possibilities for this project to leverage significant collaboration from the provinces.
94. A competent, astute and friendly management of the project at federal level would be a key to harness provincial support and even funding to implement this project and to achieve outcomes that would otherwise seem difficult or distant.

D.2.A.8 Gender Mainstreaming

95. Gender mainstreaming is an important socio-economic issue facing Pakistan with three key attributes of gender segregation, disparity in access to opportunities and lack of women empowerment. A comprehensive recent gender analyses is carried in the Oct 10, 2014 article by Alexandra Raphel of the Shorenstein Center of Harvard Kenned School. Drawing on extensive research, she talks about the country struggling with 'the competing dynamics of development, modernization, religion and tradition, noting many of the gender related issues. These include gender inequity and vulnerability of women to harassment and assaults on life when they assert for their rights. In 2008-09 more than 40% of the country's population continued to be illiterate; effective literacy rates are even lower; more so in women. The poorest girls in Pakistan are believed to be 2-6 times as likely to be out of school as their counterparts in India, Nepal and Bangladesh. There are other barriers to gender integration as well including lack of access to capital due to social constraints. Even where they are able to access microloans, about 50% to 70% of them may actually be used by their male relatives, Alexandra explains.
96. Over the years Pakistan has been seeking to address the issue of gender mainstreaming by supportive policies and affirmative action ranging from allocating quotas for women in legislative assemblies and professional education to setting up specific vocational training facilities for women and encouragement of women to seek and take public sector jobs. Likewise, many non-governmental organizations are active across the country are working for greater gender equality, supporting women in distress, enhancing education opportunities for them, and bring them into economic mainstream. A 2013 study by Arab Naz of Qaid-i-Azam University, Islamabad concludes that gender and women's reforms "are part of a long historic process and that progress has been slowed by multiple factors, including conservative forces. However, there is always the possibility of change and development, as is clear from the country's ongoing gender reforms."

D.2.b GEF Alternative

97. The project offers an alternative approach in that it focuses on long term sustainability that has evaded past capacity building efforts and that worry contemporary projects after the donor funding ends. In view of this and the importance of a functioning EMIS working reliably in the future, the project design explicitly addresses long term sustainability. It seeks to avoid creating new mechanisms and structures as much as possible, focussing instead on making exiting ones to work. It focuses investment on select priorities than spreading too thinly. It recognizes that integrating environment and development is complex that has tended to be evasive, and that expectations must therefore be set realistically. The underlying premise is that more or big is not necessarily better and that 'perfect' better not be the enemy of 'good'.
98. A key design principle, in sharp contrast to the previous efforts of capacity building for environment, is the 'market' based approach. This is based on a fundamental rethink of the role of government from being mainly a supplier (in this case of information) to serving as a market for environmental research, information and policy analysis. Practically it would mean that, instead of seeking in house capacity for everything, the government would outsource its needs for environmental research and analysis to other actors of interest and competence in the broader society. Such a market inspired approach promises to be more sustainable. It doesn't make post project continuity contingent on more government staff. It allows the market for environmental research and analysis to expand and shrink according to the resources available, and it has the potential to meet the government's needs for the required analysis efficiently, effectively, and to high quality. It can set in a positive spiral that will lift everyone up: government, universities, quality of tertiary education, and the non-profit sector.
99. In keeping with the principles listed in the opening paragraph of this section, a key focus will be placed on stimulating the establishment of the framework of environmental indicators and variables as the basis of consistent and regular reporting that was contemplated under NEMIS but not possible to complete before the end of the project. The starting point will be to secure the pending government's approval to the NEMIS indicators and reporting framework. Pursuant to that the Pakistan EPA, with support from the project, will stimulate, inspire and coordinate uniform and coherent reporting by the component organizations required to contribute to the sector, provincial and federal reports. To this end, the framework of 92 indicators and 435 variables identified for reporting by NEMIS will be reviewed, applying the 80:20 rule, for the environmental data collection to focus on those 80% variables that can be addressed with 20% of the resource requirement; the remaining 20% requiring 80% of the resources can wait;
100. Bureaus of Statistics both federally and in provinces have the mandate to collect and report data. They already do so for environment as well. The Pakistan Bureau of Statistics (PBS) produces a compendium of environmental statistics in Pakistan, although it may not be complete. Therefore, in the interest of long term post-project sustainability, let them deal with data for indicators and variables that is routinely generated. However, the project will support a review of the compendium against the NEIMS-identified sets of indicators and variables, and will facilitate Pakistan Bureau of Statistic (PBS) to upgrade their survey or other tools to include as many of the NEMIS indicators and variables as possible. For the residual variables that can't be addressed through PBS, the project will identify, in mutual consultations, institutions that could be mandated and supported to gather and report such residual data regularly. This will avoid the duplication of efforts in creating parallel systems (of gathering and reporting data) that is unsustainable. The resources saved will instead be devoted to data's quality assurance which remains a common concern. There wouldn't be enough funds in the project to do this on large scale but the concept can be pilot tested in select organizations for scaling up subsequently.

101. Likewise, the project will encourage and welcome continuation of the on-going research and information generation. It will not build a research portfolio of its own except some specific policy analysis and research that the participating entities may undertake with support from the project for integrating environment and development. The priority in the area of information will be to make a functioning EMIS operational, building on the work done under NEIMIS. The idea of a matching decision support system, attractive as it may be, is better parked until the people are comfortable with the basic EMIS. The emphasis instead will be on making such a basic EMIS operational at the first instance and not keep it hostage to perfection that can be attained over time. This is not expected to require large investments. The key essential inputs would be of a competent, astute and professional coordination, cultivating ownership of the organizations contributing their information and portals to EMIS, and sustaining their interest in regular updates by providing them value-added in return for their collaboration and support. A start will be made with the organizations and sources of information already engaged under the NEMIS project, steadily expanding the network to make it more inclusive.

102. Putting in place a functioning EMIS is much more likely if, while the EMIS mandate rests with the Pakistan Environment Protection Agency as it does, the actual coordination of the EMIS is outsourced to an existing competent and professional organization. COMSATS, SUPARCO, Metrology Department, IUCN, LEAD and WWF would be some of the viable options; SUPARCO would appear better placed. Recognizing the NEMIS fell short on directly engaging some key constituents such as the line departments in the provinces that generate and gather primary environmental data, this project will seek to expand the EMIS constituency to include them as well. Alongside, the project will simulate and support the publication of the Pakistan's first State of the Environment Report as well as the provincial reports in Punjab and KPK using the drafts developed under NEMIS. These reports will be mutually bench marked for greater efficiency and consistency in producing these reports in the future.

103. In accordance with the overall market inspired approach of the project, it will also explore market as a vehicle for financial sustainability of EMIS. The government has already committed resources, through the Pak EPA, to follow up on NEMIS including the operation of EMIS over the next few years. However, any revenues that EMIS could generate will complement the government allocations, finance expansion, and offset any short falls should the government allocation decline at anytime. There is already a viable example of the Pakistan's National Data Base and Registration Authority (NADRA) generating significant revenues for the organization. Some of the ideas generated during the stakeholders' consultation in this direction include the provision of a tiered access to EMIS for public, decision makers, researchers, and others such that public have free access to the general information, confidential data is held in security, and synthesized and detailed information are accessible for a payment of a fee .

104. The project design and strategy also makes a departure from the norm in the area of capacity building where the previous efforts have largely focused more on the traditional tools of formal training and education provided to environmental entities to the neglect of institutions of economic development where the environmental understanding is most needed and yet lacking. Thus, this project will seek to expose the bulk of the officers responsible for initiating or reviewing economic development policies and plans in key line ministries and departments to the essentials of environment. This will be done through periodic workshops or seminars and by adapting their regular training courses. It is not intended or possible to transform these officers into environment graduates but it will go a long way if they attain the basic understanding of Pakistan's environment and the country's international environmental obligations so that they can, and will, ask the right questions when writing or reviewing an economic development policy or project.

105. This is not to ignore the needs and importance of adequate and sustained capacity in the environment functions of the government. Therefore, alongside, the project will enhance access of Chief of Sections (Environment) in federal and provincial P&Ds to quality environmental input in reviewing the economic development plans and projects. Here too, instead of burdening the government to create more staff positions that is always hard to sustain after projects end, a market based approach will be developed and tested as a measure of longer term sustainability. The idea is to enable these functions to create networks of credible environmental expertise that can be accessed on need basis for the payment of a fee that is preferably internalized as a part of the development cost of a given project or plan.

106. Likewise, the project will avoid perpetuating the misplaced expectations that training and capacity building of government officials will suffice to attain integration of environment and development. Therefore, in tandem with other capacity building approaches outlined above, the project will focus its efforts on addressing the key perquisites of an informed public opinion and an engaged polity that understands the imperative of environment and sustainability and supports addressing it in economic development planning and implementation. The project may not completely turn the tide in its short 3 years period, but it will have achieved a lot if it influenced public opinion, further cultivated and nurtured the notion of sustainability in polity, and enhanced political commitment for environment-development integration. This will require a credible baseline against which the project achievements might be measured at the end.

107. In terms of the implementation arrangements, the project design and strategy refrains from creating new structures and preferably leverages and supports existing mandates that will not require much artificial props (apart from activity funding) during the project implementation and would thus be better able to sustain the project outcomes and impacts in future. In the same spirit, despite the complexity of the project involving multiple actors, sectors and institutions, the project implementation and coordination arrangements have been kept relatively simpler characterized by three important considerations:

    (a) The project will not be implemented as a monolith. Instead, it will have several components each working as a cost centre receiving project funds directly and having the essential space and freedom to implement the respective component effectively;
    (b) To avoid fragmentation and ensure synergy, the different components will be implemented in mutual coordination. In practical terms this would mean each component lead working with a stakeholders group of its own, and coordinating with other component leads, not the least through participation in the Project Executive Committee at the federal level; and
    (c) A fully devolved implementation will free the Executive Committee from day to day management or administration of the project, allowing it to focus on effective coordination, oversight, and holding the overall project together that shall remain its principle responsibility.

108. To avoid spreading the resources thinly and maintaining the result orientation of the project, the project will focus on select investments at the federal level and two of the provinces namely, Punjab and KPA. Likewise, at the federal level, the project activities will focus on Ministry of Climate Change, Pak EPA, Planning and Development Division, Bureau of Statistics, Housing and Works Division, Water and Power Division, and Food Security and Research Division. In provinces, the focus will be on the provincial EPA and departments of Forests, Fisheries, wildlife, Agriculture, Irrigation, and Public Health Engineering. The need is larger and economic sectors needing to mainstream sustainability many but the project resources wouldn't allow reaching all of them. The preference therefore is to focus on key deliverables at strategic venues to achieve results and demonstrate the viability of the underlying approaches that will motivate replication and scaling up.

109. Finally, regarding gender mainstreaming, all project interventions are gender-neutral. None of them are by themselves are likely to aggravate the gender issues facing the country. In contrast, they offer the opportunity to highlight the gender issues and for affirmative action to mainstream gender such as through careful and gender-sensitive section of participants for trainings and workshops. Also, the components of supportive public opinion and media support offer the space and opportunity for greater engagement of women.

D.2.c. Project Goal and Objectives

110. The project's overall goal is 'Generating Global Environmental Benefits from Improved Decision Making in Pakistan'. Its more specific objective is 'to remove the barriers to environmental information management and mainstreaming global environment concerns into economic decision making'. The objective is two-fold in its focus, one related to environmental information, and the other to employing this information for improved economic decision making. The project will thus have two inter-related components of: (a) establishing a robust environmental information management system; and (b) stimulating commitments and filling gapes in capacities for integrating environment and development as laid down in PIF. However, as clarified in the introduction, the first focus on environmental information is composite in nature and has therefore been divided into two separate but related outcomes for an effective implementation.

D.2.d Expected Project Outcomes and Outputs

111. Accordingly, the project will have three interrelated outcomes:

(1) Regular availability of consistent and reliable environmental data;
(2) A coordinated and robust environmental information management system, and,
(3) Enhanced commitment and capacity for sustainable development planning and legislation.

112. These outcomes will be perused in tandem because the progress in one will support the work in the other. Availability of reliable data is fundamental to a robust information management, synthesizing data into useful information is essential for informed decision making, and this will only happen if there is adequate commitment and capacity to do so. Likewise, a commitment to integrating environment and development will generate the demand for the required environmental information. Although linked, the beneficiary of the first two outcomes will be the broader society including governments, research entities, thanks tanks and non-profit organizations. In contrast, the primary target of the third outcome will be the governments at the federal and provincial level.

113. In describing the project outcomes, outputs, strategies and implementation arrangements the terms 'environment' or 'environmental' have been used to refer to the three Rio 1992 conventions collectively. This should not be interpreted to broaden the scope of the project or weaken the attention to these multilateral agreements. The project's undiluted focus, as in PIF, shall remain on the three Rio conventions. Accordingly, all efforts of the project shall be clearly targeted at the issues of biodiversity conservation, climate change and desertification with a view to enhance the implementation and reporting under the relevant multilateral agreements.

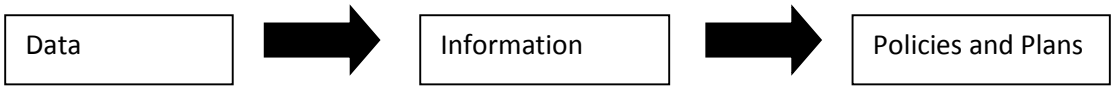
114. Logical Framework for the project is presented at Annex 1. The ensuing paragraphs put the project outcomes and outputs in perspective for clarity and guidance for their effective implementation.

Outcome 1: Regular availability of consistent and reliable environmental data

115. The regular generation, flow and availability of consistent information has been a major hurdle, especially in environmental reporting. While the NEMIS did produce drafts of first Pakistan State of Environment Report and provincial reports, the ability to produce these reports regularly is contingent on a functioning system of data gathering and availability. The focus of this outcome is therefore on strengthening the gathering of primary data, its compilation and flow to a point where it is housed and accessible as a one-stop shop for consistent data. This shall be the data that, at least, all government plans and reporting would source and reference for consistency.

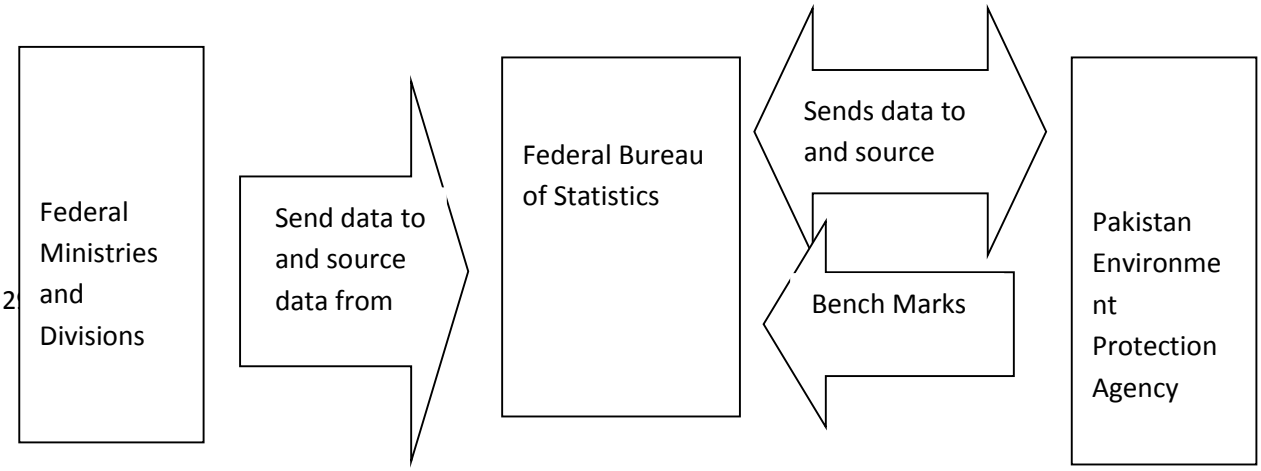
Output 1.1: A Unified Collection, Storage and Access System for Primary Data

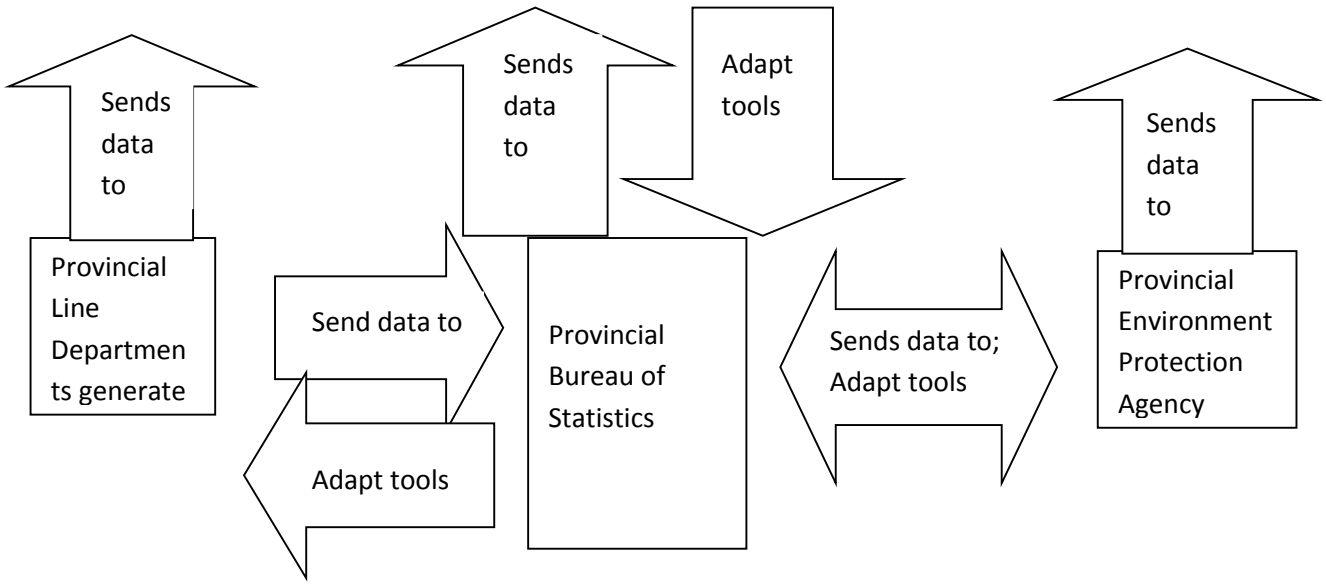
116. Traditionally a lot of the environment related data is already collected by respective line departments and is even published through periodic Environment Statistics of Pakistan by the Federal Bureau of Statistics. There are two key issues with it. One, these reports are not complete to meet the full requirement of the environmental information systems identified under NEMIS: 92indicators and 435 variables. Second, some people arguably question the reliability of data. Therefore, this project, instead of creating other parallel systems that will not be sustainable, seeks to strengthen the existing system by targeting the two issues of completeness of data and its reliability. For this purpose a **distinction** is made **between data and information**, the first being a gathering of facts as they exist whereas the later connotes the interpretation and synthesis of data into useful information that in turn make the basis of policies and plans. This differentiation then helps define the respective roles of the different organizations



117. In practical terms this would mean primary data gathering shall continue to be done by the field establishments of the respective line departments (forestry, agriculture, irrigation, public health and others) that is aggregated at various administrative levels and fed into provincial Bureau of Statistics and through them to the federal Bureau of Statistics as the principal custodian of publicly generated data. This will help avoid duplicating efforts and variable sourcing that has constrained consistent reporting in the past. The eventual output will be A Unified Collection, Storage and Access System for Primary Data that enable feeding harmonious and reliable data into a coordinated and robust environmental information management system. The realization of this output is not likely to require significant funding other than supporting a dialogue between the key players for an agreement on the overall architecture of the system (see below), their respective roles, and a commitment to make the system work.

Figure 1: Overall Architecture of 'A Unified Collection, Storage and Access System for Primary Data'





Output 1.2: An Established List of Priorities for Data Gathering and Reporting

118. Collecting and reporting environmental data consistently and reliably is expensive. For example, it is believed, analyzing one air sample for dioxin would cost USD 40,000. The respective agencies would not have the resources to regularly collect and report all the data required for the 92 indicators and 435 variables identified by NEMIS. It is therefore important to establish a sense of priorities guided by the need for decision making in Pakistan and its obligation to integrate and report on global environmental concerns. It would serve the project objectives and everyone involved well to apply the 80:20 rule and focus on those 80% indicators and variables that can be measured and reported on at 20% of the cost and let the other 20% requiring 80% of resources wait. The agencies and multilateral agreements would be happier with good quality and consistent reporting on 80% of the indicators than erratic, unreliable and inadequate reporting on everything.

Output 1.3: A Report of Bench Marking of Environmental Statistics of Pakistan with the NEMIS Identified Environmental Data Requirement

119. The environmental statistics published by the Bureau of Statistics will be bench marked against the requirement of environmental reporting framework established under NEMIS. The purpose will be to establish the extent to which the report currently covers the priorities among the 40 plus indicators and 420 variables identified in NEMIS, as established under output 1.2 above. It will help identify important gaps and determine which of these gapes may be possible to fill by suitably adapting the existing tools and surveys used by the Bureau of Statistics and which would be the residual data for which alternate measures would be necessary to put in place.

Output 1.4: An Agreement between the Ministry of Climate Change and Bureau of Statistics

120. During the stakeholders' consultation in preparing this project, the Bureau of Statistics had indicated that they would be able to strengthen the gathering and reporting of environmental statistics but they would only do so at the instance of the Ministry of Climate Change. Therefore, pursuant to Output 1.3, it would be important that an agreement is reached between the Ministry of Climate Change and Bureau of Statistics, clarifying what additional environmental data the later may additionally collect and report on regularly in an institutionalized way, and what support they might need for it under the project. It is expected, once institutionalized, the recurrent costs of the reformed reporting will become of part of the normal operating costs of the Bureau of Statistics.

Output 1.5: Reformed Data Collection Tools and Approaches

121. Once it has been established and agreed which of the lacking environmental data requirements will be internalized in the environmental statistics of Pakistan, the next step will be to review and assess the tools, survey and approaches that the Bureau of Statistics normally uses for gathering and reporting environment data. The purpose will be to make them inclusive of the priority additional information requirements identified and agreed for collection and reporting through the Bureau of Statistics. They may be supported to develop and institute additional tools and surveys, as needed for these tools to eventually become a part of their normal system of environmental data collection and reporting.

Output 1.6: Environment Statistics of Pakistan

122. The Federal Bureau of Statistics will continue to produce Environment Statistics of Pakistan as before. However, these reports will now be more complete including the additional information that will have been agreed between the Bureau of Statistics and the Ministry of Climate Change. Also, in the past these reports were published periodically after a few years. The project will support the production of these reports regularly in future. Two annual reports are envisaged to be produced and published during the project period.

Output 1.7: Mandate for Collecting Residual Data

123. Although it is expected that many of the indicators and variables will be possible to integrate in traditional data collection tools and reports of the Bureaus of Statistics, it is very likely there are some data requirements for which mandates are either inadequately assigned or not defined at all (such as ambient air, water quality, green-house gases emissions) . In some cases, there may be overlapping efforts such as in the use of digital technology for land-use changes). In this output, the mandates for environmental requirements that Bureau of Statistics is unable to internalize in their system will be clarified or freshly established as necessary to ensure the completeness of availability for essential data, at least for areas identified for reporting as apriority.

Output 1.8: Protocols of Quality Assurance of Environment Data

124. Consistency, quality and reliability of data are a common concern. The creation of a unified data system envisaged above will address the issue of consistency but more will be needed to assure data

quality and reliability. The project resources will not allow a universal quality assurance system across all sources of data but the idea will be pilot tested in select sectors of Forest, agriculture, irrigation, public health and environment protection agencies. Entities using data collection and survey tools for collecting and reporting data to Bureau of statistics will be supported with mechanism of quality assurance on the collected data. The specifics of this mechanism will vary for different entities and will be defined based on an adequate understanding of the steps in data generation, compilation and flow. However, a combination of live monitoring, sample checks, peer reviews, and use of Android and smart phone technologies would significantly help in achieving the required quality assurance. The key outputs will be the development and use of a set of data quality assurance protocols foraselected4 entities, 2 each in Punjab and KPK, responsible for gathering primary data and identified for pilot testing of the approach under this project.

Outcome 2: A coordinated and robust environmental information management system

125. A lot of work in this area has been done in the past. Starting from Sustainable Development Network of Pakistan (SDNPK) about two decades ago and development of the Pakistan Development Gateway, Pakistan Wetlands Portal, NEMIS, National Disaster Management Authority information management system and many others along the way, there have been multiple initiatives in this regard. Common to all these efforts has been their lack of coordination and sustainability after the projects ended. Therefore, under this project, it is not intended to create yet another information management system that will face the same fate. Instead, the focus here will be on two thons. One, to leverage the investments and efforts already made and to work towards effective coordination and longer term sustainability of what already exists in true spirit of the intended GEF/UNDP funding. In view of the above and the importance of having a functional environmental information management system, it is important to set realistic plan and targets. The ambition of a sophisticated decision support system at federal and provincial level is better parked in preference to having the essentials of a reliable information system in place and operating sustainably. Once this is achieved, and people are comfortable with using the system, a component of the decision support system can be added later.

126. The project faces exceptional opportunity in the work carried out and the foundation laid under the NEMIS project. The essentials of an environmental information management system are mostly there. It requires finishing touches, making the system operational, actively managing it, effectively coordinating with member organizations contributing the information, and cultivating their ownership and support. This project seeks to build on this foundation and leave behind a system that is functional and sustainable.

Output 2.1: An Effectively Operating National Environmental Information Management System

127. This is a key output but wouldn't require a lot of additional resources because of the opportunity created by the previous investments. The NEMIS terminal evaluation identifies the key steps that would enable making the system operational. These notably include:

(a) Benchmarking of the NEMIS identified 92 indicators and 435 variables against the environmental quality standards of Pakistan to ensure adequate and regular information and support for the NEQs implementation.

(b) Reaching an agreement on the institutional and technical framework for NEMIS with the provinces: The idea of enforcing the framework with the approval by the Federal Government is constrained by the 18th Amendment to the Constitution of Pakistan that has devolved the subject of environment to provinces.

125. The NEMIS terminal evaluation recommended that the web based GIS/RS application for environmental monitoring in Pakistan should be made operationalthrough the establishment of a NEMIS directorate in Pakistan EPA and correpsonding EMIS cells at all nodal agencies. However, this approach may be expensive, slow to effectuate and hard to keep effectivly operating sustainably. One possibility would be to merge the NEMIS with the effectively functioning existing NDMA MIS (which is also a part of the Ministry of Climate Change). However, this is also a project based initiative and it remains unclear what might happen to it after the project ends in a year or so.Instead, a more promising alternative would be tooutsource the management and coordination of th NEMIS to one of the existing organization with a mandate and competence in information technology. For now, EPA is hosting the EMIS on the COMSATS servers for the payemnt of a fee.

126. Based on the stakeholdrers consultation, limited as it was, SUPARCO would appear a more suitable option. Unlike COMSATS which only has the IT capacity to hold and host the information, SUPARCO besides having same IT capacities, itself generates a lot of relevant information. In fact, at the time of the stakeholders' consultation the only information that COMSATS was hosting was from SUPARCO. Apart from SUPARCO's ability to contribute its own information and proactively manage and update information provided by others, it is a strtaegic government organization with highly secured premises for the physical location of the servers. It will also not require the payemnts of service fees apart from initial support for putting in place essential institutional capacity.In any event, it would be worthwhile that the Pak EPA and Ministry of Climate Change, as the entites responsible for NEMIS, carefully evaluate and select the best option for outsourcing NEMIS coordination and manangement.The key to the success and sustainability of the NEMIS, espcially post the 18th Ammendement is that the organizations who generate, own and contribute information are willing partcipanats at the table. They must see the value in contributing their time and resources. The creation of an obligation to report, even if possible after the 18th Ammendemnt, would only go some distance. Therefore, cultivating and sustaining their collective ownership of EMIS to the benefit of all member entities will be critical.

127. Under NEMIS, the nodal agencies did not inlude the agencies collecting primary data such as the departments of forestry, agriculture, irrigation, public health and others. This was a key gap that will be filled in this project and the fold of key stakeholders expanded to include them as well. This in trurn will increase the need and complexity of coordination that should be possible to meet by employing a combination of the traditional coordination mechanisms and digital information technologies, the later increasingly substituting for the former (e.g Using Go To meetings, Skype and other means instaed of face to face meeting requiring long travels at significant costof time and resources).

128. However, to avoid the coordination implode under its own burden, it would be wise to start with information contributing agencies (e.g. enties who have their own information systems and portals and are pooling them with NEMIS), coordinating entities (eg.EPAs), and adding select data generating entities from the filed as mentioned above. Once it starts functioning, the system may be steadyly made more inclusive by inviting others. This in turn willrequire a professional coordinator who is competent and skilled in information technology and managment systems but equally an astute leader who excells in interpersonal communication, instills confidence and stimulates collaboration.

129. The member organizations shall be encouraged to continue their research and analysis, enbaled in part by the unified data gathering, storage and access system under outcome one, and continue pooling it with others on the EMIS platform. This shll not require new and additional resources under thisproject. Any additional resource requirements are better met through their normal operational and development budgets in the interest of reducing reliance on donor funds and long term sustainability. The success of the NEMIS will reside in it being operative at all time hosting the most cuurent information from all key stakeholders, enabled by astute coordination keeping stakeholders engaged, contributing and supportive. This will need to be paralleled by competent, effctive managemnt and regular upkeep of the web portal outsourced to the best of the available organization.

130. It is important that the expectaions from the system are set right. If the project is not investing in additional and new research, it will contend with whatever information the NEMIS participating entites will be able to contribute than expecting that they will undertake additional and specific reseraches for the purpose of EMIS. In that sense, NEMIS will be aplatform on which all latest environment related information from key entities and stakeholders is pooled togther, and made accessible. It will not by itself generate reports rquired within the country or for external reporting to multi-lateral environmental agreents. Instead the focal entities responsible for such reporting will generate those reports drawing on the pool of curent data and information respectively accessible through the Bureau of Statistics and NEMIS. This is examplified by some of the other outputs for this outcome.

Output 2.2: Policy Research and Analysis

131. For an environmental information management system to be effective and useful, it is important that the available information informs policy, planning and research. The EMIS will be an invaluable resource for the purpose but it will not by itself lead to integrating environmental consideration in economic development planning. Instead, it will require interest and capacity in the respective government entities to employ the information for informed decision making. Typically, projects have relied on creating more positions in the respective departments for such newer or additional functions. In practice, it has seldom worked. Constraints are imposed by timely recruiting of staff during the short project periods and by the lack of resources to sustain such positions after the end of the project. Also, such temporary positions, unless they are well paid at the market rates, do not attract best of the talent.

132. Therefore, in the spirit of creating a sustainable mechanism to integrate environment in development, this project would follow a market based approach to policy research and analysis in which the government, on one hand, acts as a supplier of information made possible by the unified data collection and reporting system and the EMIS, and on the other it serves as the market for policy research and analysis. In practical terms, under the project, it means that government entities requiring policy analysis and research to integrate environment and development, will identify their needs for the purpose and outsource the work to think tanks, universities and other entities outside the government but also inside (e.g. the metrology department and SUPARCO) where relevant research interest and capacity exists.

133. This approach will have many advantages including, a greater promise of post project sustainability, speedier commencement and delivery of policy research, avoiding long term staff liabilities for the government, and creating a positive spiral in the society where demand in the government stimulates and funds work of the think tanks and universities whose research and teaching becomes more practical and result oriented. The government will have the possibility to expand and contract its research portfolio based on the resources available to it without having to

frequently create or dismantle required institutional infrastructure. What it will need is effective coordination capacity that can be provided by existing staff, a network of competent thanks tanks and policy research entities, and patience and perseverance as this system takes roots and develops.

134. To institute and test this approach, coordinated by Pak EPA, EPA in Punjab and EPA KPK in their respective jurisdictions, 18 policy analysis and researches are contemplated over the three years project distributed over 2 federal entities and 4 provincial entities, 2 in each of the two pilot provinces of Punjab and KPK. The respective entities will identify the key policy shifts or major developments they contemplate over the next 2-5 years and elaborate the terms of reference for assessing their environmental implications, especially as related to global environmental benefits and Pakistan's commitments in that regard, and how these might be best integrated in the envisaged future policies and plans. Simple as the output looks, it would be the most concrete way of informing decision making in major policies and plans in ways that can be replicated easily.

Output 2.3: Pakistan's State of Environment Report (s)

135. The Pakistan Environment Protection Act 1998 requires a state of the environment report to be published every year. Several factors relating to both capacity and availability of information have not allowed this to happen. Under the NEMIS project all the spade work was done and a report drafted. It will be of immense value for this project to leverage that work and help produce the first State of Environment Report for Pakistan. The project may also stimulate and support the development of two subsequent annual reports but that shouldn't require the project funds assuming the government would have the means to produce the reports through the normal course of business, enabled of course by the environmental information system supported and operationalized under this project.

Output 2.4: Provincial State of Environment Reports

136. As at the federal level, NEMIS also helped with developing the provincial state of environment reports but the process could not be completed. It would be prudent to take those efforts to fruition and help produce the provincial reports in Punjab and Khyber Pukhtoon Khwa (KPK) being the focus of this project. Punjab would already have about Rs. 85 million (USD 850,000) available to it over 2014-17 for the province's environmental profile. During the planning mission for this project, the Punjab EPA and Planning and Development Department had expressed strong interest to collaborate for greater synergy and learning. Likewise, KPK has a Green Development Program of Rs.14 billion over 2014-18 with an indicative allocation of Rs. one billion (about USD 10 million).for the first two years. It may not fully fund a provincial state of environment report for KPP, but it may contribute to it significantly. It is envisaged that a total of 4annual environment reports would be produced, 2each by Punjab and KPK.

Output 2.5 Bench Marking Pakistan State of Environemnt Report with Provincial Environment Reports.

137. The provincial environment reports may vary in their focus and content and understandably so given the very different characteristic of their environments, ranging from glaciated mountains to coasts to deserts. It is therefore unlikely that a federal state of environment report would be a compendium of provincial reports. Also the target audience for these reports will vary. Nonetheless, it is important to avoid duplication of efforts and harness synergies as best as possible. Therefore, it will be important that the two sets of reports are bench marked against each other for mutual learning and coherence but most importantly to ensure that the provincial reports include and carries the essential information that the federal report needs to include about the provinces. This will begin with the first set of reports when published, and will continue through successive iterations of the

reports eventually making them fully coherent and mutually supportive over the three-year project period.

Output 2.6: Country Reports under Multilateral Agreements

138. Pakistan has obligation of submitting national reports of implementation of the multilateral agreements, notably the 17 environment related conventions/protocols that it is signatory to. The country has been reporting against the three Rio Conventions of UNCBD, UNFCCC, and UNCCD. This may need to be further strengthened. Reporting against other conventions also merits more attentions.

139. The advent and operationalization of the NEMIS should improve the reporting against the various conventions but the project will offer specific support to enhance the content and quality of reporting against the three Rio conventions. The respective conventions have in the past funded the preparation of these country reports. It is not anticipated that significant project funds will be additionally needed for the purpose; however, project resources will be made available for gathering critically lacking information or undertaking analysis that is not funded by the conventions. The aim would be to raise the bar and set a bench mark of complete and high quality reporting in the future. The project is envisaged to support 3 country reports against the Rio Conventions.

Output 2.7: Harnessing Research Capacity and Opportunities in Universities

140. It is ironical that, on one hand, environmental information management system is constrained by lack of access to information and, on the other hand, universities are struggling to link their research to practices and needs on the ground. At the Peshawar Stakeholders' workshop, the Vice Chancellor of the Agriculture University proposed that environmental agencies and universities need to work closely together to create a positive research-policy-implementation loop to the benefit of all and the society at large. In the interest of achieving the project goal and outcomes, it is envisaged that Pakistan Environment Protection Agency establishes a dialogue with KPK EPA and Agriculture University, to identify a research agenda, as a pilot, under this project, such that Maser and PH.D students of the university are engaged in undertaking research project that would directly fill the gaps in information that are required for the completion of the EMIS and environmental reporting, especially against, the multi-lateral agreements. A similar arrangement will also be explored and established in Punjab.

141. This will allow avoiding the duplication of efforts, pooling of resources and harnessing synergy. It will also make research in university more action and result oriented better preparing the graduates to take up responsibilities in various projects and organization. It will also help better meet the human resource requirements of environmental organizations with graduates who will be knowledgeable and will have worked on issues of practical nature. A sustained effort here would go along way in creating the much needed capacity for mainstreaming environment in economic development.

142. Overall, 12 research projects in collaboration with two universities, one each in Punjab and KPK (6 in each province) are envisaged to be undertaken focused on contributing to the NEMIS. This is premised on two research internships/scholarships being carried with master students each of the three year project period with each of the two universities. However, it will be useful to review and rationalize these targets during the inception workshop to ensure these can be realistically achieved over the project period.

143. A flow chart outlining the overall schematics of an operational EMIS is presented in Annex 2.

Outcome 3: Enhanced commitment and capacity for sustainable development planning and legislation

144. Capacity building for environment in Pakistan commenced in follow up to the 1992 Rio World Summit on Environment when National Conservation Strategy Unit was created in the Ministry of Environment at the time, paralleled by the creation of an Environment Section in the Planning and Development Division and an independent think tank – Sustainable Development Institute. A suit of other initiatives followed including the creation of Environment Sections in the Planning and Development Departments at the provincial level, updates to environmental legislation, establishment of National Environmental Quality Standards (NEQs) and the strengthening or creation of non-governmental environmental organizations. Also, guidelines and rules were developed for integrating environment and development particularly through processing environmental impact assessments for private sector projects administered by environment protection agencies and environmental reviews for public sector development projects in the Environment Sections of the Planning and Development Division of Pakistan and the P&D Departments of the provinces.

145. Despite all this, integration of environment and development has eluded success. Several small and big battles have been won, in most part due to NGOs advocacy and help, there is little to see for large public sector projects being shaped by environment or sustainability considerations. This can be attributed to four main reasons:

(a) There is a lack of effective capacity at the level of project planning and approval. There have been significant training and capacity building programs but these efforts have focused on selective functions (e.g. environment sections and EPAs) and the individuals managing them. These and other environmental decision making positions are often in the hands of officers from civil service who keep rotating frequently thus precluding effective capacity being in place for long enough. Even if these officers were not rotating, the work load of hundreds of project proposals crossing their desks would not allow them to do justice with the job. Also, it is difficult for one or two persons to be experts in all the subjects and sectors of environment.

(b) At the operational level, officers from the civil or secretariat services, assigned to divisions and departments dealing with economic development, are expected to initiate or review project proposals in various divisions and departments of the public sector, and they have hardly any exposure to environmental issues, much less to global environmental concerns. Although to a lesser extent, these officers also keep rotating.

(c) Public awareness has increased but not enough to demand sustainability in development from the politicians. Politicians understandably respond to voters' interests and demands. Informed public opinion is therefore an essential pre-requisite for a lasting change.

(d) Finally, while there are some very committed and highly knowledgeable people both within political leadership and senior bureaucracy, there is a widely held perception that environment and sustainability are luxuries that can wait until economic growth has been attained.

146. The lack of informed public opinion and broader political awareness and commitment are in fact two major barriers to integrating locally and globally important environmental concerns in development, and account for the for much of the lack of progress in the past. Therefore this outcome of capacity building for environment, in departure from the usual course of developing more guidelines and providing more training to select functions, is focused on addressing the core

constraints impeding progress. Accordingly, the following sets of key outputs are envisaged to achieve this outcome.

Output 3.1: Exposure and Training of Civil Service Officials

147. This output is aimed at increasing the environmental understanding of officers from the civil and secretariat services that have a role to play in environmental decision making, and planning and review of development projects. It is neither possible nor intended to make these officers environmental experts. The idea instead is to expose them to the essentials of environmental concerns, how they manifest in Pakistan, and what are Pakistan's interests and global obligations in this regard. The output will have served its purpose if the officers are able to raise the right questions in relation to environmental considerations when they plan development projects or when they are tasked with environmental reviews of such projects. The project interventions here will not be focused on select functions and individuals for the reasons mentioned in the preamble of the outcome above. Instead, effort will be made to reach out to the broader group of officers. However, it is acknowledged that the project resources would not suffice to undertake economy wide training program across the country. Thus some prioritization will be inevitable. Accordingly, this output will focus on:

(a) **Organizing Guest Lectures at Training Institutions**: Training courses for officers of the civil and secretariat services are organized through various institutions including the Pakistan Administrative staff college and National Institute of Public Administration. Guest lectures on environment will be organized in these institutions tailored to provide the officers with the essential understanding of the key environmental issues facing the world, and the country's interest and obligations in this regard, including under the various multi-lateral agreements. 12 guest lectures at The Administrative Staff College, NIPA Lahore and NIPA Peshawar are envisaged.

(b) **Environmental Seminars and Workshops:** The officers currently in the key ministries and provincial departments will be exposed to global and local environmental concerns through a series of onsite workshops organized at the respective ministries and departments. This will cover the three sets of ministries and agencies: (i) Ministries and departments who are the so called custodians of the natural environmental assets such as agriculture, forestry, irrigation, public health, metrology and others; (ii) Agencies that are specifically mandated to integrate environment and development namely Environment Protection Agencies, Planning and Development Division and P&D departments; and (iii) departments whose projects tend to have large environment foot print such as communications, ports, water and power, industry and others.

148. For the purpose (b) above, Priority and focus will be on the economic development ministries and departments whose projects have major environmental implications and whose officers are understood to have the least environmental exposure. Also, Officers of the Planning and Development Division and P&D Departments in the provinces will be priority target beneficiaries due to their specific mandate and role to integrate environment and development. The officers listed at (b)(i) and (b)(ii) above have relatively greater exposure, some being very knowledgeable and skilled environment professionals. These professionals will be used as resource persons for the seminars and workshops. Given the variations in their roles and responsibilities, the content of the seminars and workshop will vary for the different categories according to their roles and exposure to environmental

issues. This will require the development of a set of different standard presentations to be used for various audiences.

149. For this to be effective, it will be important that the efforts are lead and supported by the government secretaries of the respective divisions and departments, enabled by the Planning and Development Division at the federal level and P&D Departments at the provincial level, with the overall coordination resting with the Environment Section in the P&D Division, Government of Pakistan.

150. A series of 90 workshops and seminars, 30 each at the federal level and in the provinces of Punjab and KPK are envisaged over the 3-year project period. This is based on two training/exposure sessions or seminars or workshops of one or half a day each of the three project-years hosted and organized by each of the 12 participating divisions and departments of the federal and provincial governments. These sessions are not meant to be expansive workshops with external facilitations and cumbersome logistics and report writing. Instead are meant to be information and discussion sessions inspired a thoughtful presentation hosted on the premises of the divisions and departments as much as possible. The purpose is cost effectively reach a wider number of relevant functionaries. While 2(one or half day)sessions in a year at a department or division seems reasonable, these targets are better reviewed and rationalized at the inception workshop to avoid setting unrealistic expectations and to ensure a result oriented implementation.

Output 3.2: Enhanced Access of Planning Functions to Environmental Expertise

151. The Environment Sections both in the Planning and Development Division of Pakistan and in the provincial P&D Departments need access to more and better environmental expertise for them to be able to effectively help integrate environment in development planning. The governments have done what they could in terms of human resources to resource these functions but there will always be constraints to what can be done. The current capacities may suffice to coordinate the efforts but are far short of the requirements for effective environmental review of projects that land on their desks. These constraints are two-fold. One, competent as these professionals are, they are too few to do justice to all the projects they are expected to review; and second, given the multiplicity and complexity of environment, it is practically impossible to have all the required expertise in- house until the workforce in the environment functions was to be increased many fold which is not realistic. Even if this was possible, the fact that these positions are manned often by rotation of officers from the civil and secretariat services, retaining effective capacity in place will always be an issue.

152. Therefore, a market based alternative is envisaged to remove this major constraint to capacity for helping integrate environment and development. This involves giving the Chiefs of Environment Sections in the Planning and Development Divisions and P&D Departments the administrative and fiscal space to create and maintain a network of environment experts, covering all major disciplines of environment (biodiversity, water, land, emissions, effluents ecosystem services and others) as well as all key development sectors with large environment footprint (communications, ports, dams, industrial estates and others. These networks will include experts that the Chiefs of Environment may accredit based on their qualifications, experience, background and track record.

153. The experts will continue their professional work of research and implementations wherever they are in their respective institutions but will serve as resource persons for the planning functions on a retainer basis. This will essentially mean, when Chief of Environment receives a project for

environmental review for which s/he may not have time or capacity in house, s/he will review the resource network and pull together a list of one or more experts to whom s/he might assign the project for review and advice on payment of a retainer fee per hour or per day. This will require that appropriate standard fees and agreement are established beforehand that are applicable to members of the network. The payment will be on (as and when) need-basis. It assumes that the Chief of Sections will have the funds to make such payments.

154. The idea will be plot tested at the Planning and Development Division and the P&D Departments of Punjab and KPK under this project. Apart from addressing a key constrain in integrating global environmental concerns in development planning, this arrangement will also create a market for environmental expertise that may expand overtime. The government and non-governmental organization would contribute expertise to the expansion of this market and would be able to source high quality expertise from it in future. This will also better link research and education to implementation and make them more practical and action oriented. If successful, it I assumed, the governments would be willing to provide the funds to sustain this arrangement longer term based on the premise that the alternate approach would be impactful and cost effective.

155. It could be argued that there better be one experts' network that any of the planning functions at the federal or provincial level might access as needed. However, administratively, such a single network would be difficult to manage given the devolution of 'environment' to the provincial level and the needs for additional coordination. Therefore, three professional networks of environment experts are envisaged one each at the federal level and the provinces of Punjab and KPK. It is likely that the membership of these networks may somewhat overlap and, with experience overtime, review and refine the arrangement as would best serve the cause of integrating environment and development better.

Output 3.3: An Engaged Polity

156. Even if the requisite capacities are available in the government and NGOs, it will remove only one obstacle to integrate environment and development. By itself, it will not neither determine nor decide the eventual outcomes of the integration process. Development by definition is political and is even more politicized in Pakistan. Large development projects with major environmental implications risk going through speedy approvals without due consideration and integration of environment. On the other hand, promising environmental improvement projects might be hard to take through the approval process. Pakistan is fortunate that its current parliament has some very committed and experienced environment professionals. They offer nucleuses around which wider engagement of the polity can be built. The political leadership is learned and educated. The intent of this output is not to educate them in particular. Instead, the purpose is to engage them in a dialogue that would further enhance their understanding and hopefully their commitment and support to effectively integrate environment and development.

157. An engaged polity would mean political leaderships both within the government and in opposition (members of national and provincial assemblies as well as senate) who are not oblivious to environmental concerns but are rather informed and willing and actively engaging in the dialogue around environmental issues in search of solutions. This output will be pursued through the following sets of actions:

(a) Engagement of Standing Environment Committees in the Senate and National Assembly by providing them periodic briefings on the key environment and sustainable development issues. 12 such briefings are envisaged over the project period.
(b) Engagement, and if necessary the creation, of the Standing Committees on environment in the provincial assemblies of Punjab and KPK. 6 environmental briefings with each of them are envisaged.
(c) Supporting the Federal Minister for Planning and Development and his/her counterpart Provincial P&D Ministers in Punjab and KPK to organize filed visits for their fellow parliamentarians to some high profile national development projects with major environmental implications where they may see the projects first hand and receive presentations on environmental implications on-site. 9such visits, 3 each at the federal level, Punjab and KPK are envisaged.

158. This may not change the decision making process over-night but it will certainly sow the seeds for more informed polity that will be more considerate of integrating environment in future developments.

Output 3.4: Supportive Public Opinion

159. Supportive public opinion is positive perception of the environment among the population. It means that common people understand the issues of environment, are able to relate to them in their social and economic contexts, are concerned with the potential loss of their socio-economic wellbeing resulting from environmental degradation to a point where they are prepared to not sit quiet. They, as voting public, demand of their politicians, protection of environment as something that underwrites long term prosperity.

160. Political leadership of a democratic country, as expected, respects and responds to the opinion of its voting public. While public in large does suffer from environment neglect such as water borne diseases and energy shortfalls, they do not necessarily attribute it to environmental degradation and mounting pressure on limited natural resources.

161. Like other aspects of environmental movement, a lot of resources have been invested in environmental awareness, typically through workshop and advertisements in press and TV. However, apart from being intermittent, these efforts have had limited reach into largely uneducated population. Even those educated largely continue to be inadequately informed and indifferent to the issues of environment. Putting more resources into workshops and seminars or press ads is unlikely to change much due to low effective literacy rates.

162. Instead, a more effective and powerful vehicle of building public opinion in Pakistan has been the TV drama serials that people of all hue and standing watch. It was very effectively used for creating awareness around the imperative of population planning through a very popular drama serial ‘JanjalPura’ that for the first time allowed discussion of issues that wasn’t possible before in a highly religiously society.

163. Drawing inspirations from the above, it is envisaged to support the production and weekly telecast of two popular drama serial around the key issues of environment on the TV channels with

most reach. This is all likely to significantly influence public opinion and thus contribute to the increased commitment and support for mainstreaming environment by the polity.

Output 3.5: Media Support

164. Media Support signifies proactive engagement of media. It is media that is not reactionary waiting to feed on (bad) news. It is media that is well versed with the issues of environment and sees and pursues its role as an agent of environmental change. It is interested and able to undertake environmental investigation both to inform public opinion and to induce greater public accountability in environmental and economic decision making.

165. A segment of media, specially the press, has been conscious and supportive of attention to environmental issues. The NGO community has been effectively engaging them for successful advocacy in relation to certain development projects. It is envisaged to mobilize and engage a core of the representatives from both print and electronic media to support building the public opinion and demand for integrating environment and development.

166. To this end, an approach similar to the one for engaging polity is envisaged whereby the media representatives will be taken to visit major project sites and provided on-side briefing on the implications of these projects for environmental concerns of local and global significance and how these concerns are best internalized in the development plans and policies. 12 media visits and engagements are envisaged over the project period.

D.3. Sustainability and Replication

D.3.a Sustainability

167. Sustainability has been the driving consideration in the project design, its strategies and approaches. An important consideration has been of policies and commitments: will there be enough interest and an institutional home for sustaining the project outcomes after it ends? This wouldn't be an issue for this project because the government has already mandated Pakistan EPA for the follow up on NEMIS and has allocated about Rs. 48.885.million(USD 489,000) for 3 years to what is called a Geometric Center as the vehicle for the purpose. By anchoring the overall project implementation and coordination in the Ministry of Climate Change that Pak EPA is a part of, and by housing the EMIS component of the project in the Pak EPA, the institutional sustainability of the project outcomes is firmly secure.

168. Projects often suffer from sustainability concerns due to creating new structures that either don't fit to the institutional context or are expensive to maintain later on. A key burden always is of sustaining the large number of staff these projects recruit with a misplaced expectation that the government resources will suffice to sustain them after the project ended. This project avoids that by tasking the implementation to existing structures and mechanisms. The additional human resources envisaged are limited and mostly for the specific purpose of additional coordination entailed by the project during its implementation. These are temporary positions that will end as the project ends. If there will still be any residual work to be continued in future, this clear understanding, allows a three years period to absorb it in the system as required.

169. A key question of sustainability is how the essential collaboration and coordination between economic development actors (divisions and departments) at the federal and provincial level and their counterparts in the planning, policy and regulatory functions will be continued afterwards. This has been addressed for most part by assigning the implementation of the respective components to entities such as Pakistan Bureau of Statistics, Planning and Development Division, P&D Departments in the provinces, Pak EPA and Provincial EPA who already have the relevant coordination mandates. Coordination of stakeholders' input into EMIS in a way that sustains and enhances EMIS overtime is a bigger challenge. The continuity of EMIS itself is not in danger; it would all likely continue in some form. The aspiration is that, besides functioning effectively, the EMIS will further develop in future.

170. The project design has been sensitive to this aspiration. The drafting of internal MOUs recommended in this project would help bring the clarity and trust the lack of which would otherwise threaten sustainability. Also, an astute, mature, and competent handling of EMIS, as recommended in this proposal, will go a long way in securing post project sustainability and growth of EMIS. It will create deeper ownership of EMIS among stakeholders (federal ministries and divisions, provincial line departments, thinks tanks, NGOs and other information providers) by giving them, among other things, due recognition and value addition. It is therefore, the EMIS coordination is envisaged to be tasked to a reputable organization such as SUPARCO supported with a competent MIS professional having excellent interpersonal skills, recruited from the open market.

171. The market based approach of the project caries the greatest promise of post project sustainability. This will entail creating and enabling market for generating, sourcing and supplying information for, and through, EMIS. Likewise, sustainability is also manifest in environmental research and analysis as well as in mobilizing public opinion in support of integrating environment and development following a market based approach.

D.3.b. Replication, Lessons-Learnt and Scaling up

172. The consideration weather and how the project approaches and outcomes might be replicated and scaled up takes four important dimensions: One relates to the expansion of the EMIS itself. The starting premise is that a basic EMIS is made functional now with a vision to improve, grow and expand over time. This will involve inviting more organizations to contribute their data and information as a part of the EMIS, and potentially setting up similar systems at the provincial level. Both of these are possible, however, the later one will need further consideration to avoid fragmentation that might complicate coordination, and to enhance than impede the integrity of a national EMIS. The lessons learnt during the course of the project implementation will greatly help and inform future expansion.

173. Secondly, the limited project resources have meant that only two of the provinces, namely Punjab and KPK, could be included in the project. Similarly the project interventions and testing of innovations are focused only on select divisions and departments of the federal and provincial governments respectively. It would be both possible and necessary to replicate and scale up the project efforts to the other federating units of Pakistan. A successful implementation of the project will both inform and aspire such a scaling up. To this end, it will be important that the project's experiences are documented and shared widely beyond the immediate stakeholders.

174. The third consideration is of the innovative approaches, especially of the market based strategy, envisaged for the project implementation and post project sustainability. This is a simple but potentially powerful concept. It will admittedly require preparedness to depart from status quo and to invest the necessary effort to create an environmental information market and enable its operation. However, once successfully piloted tested under the project, it would be easier to replicate

and scale up. The promise lies in the simplicity of the approach, its cost effectiveness, its longer term sustainability, and in effectively communicating the learning and experience broadly.

175. Finally, in the developing world, especially in much of Africa and Asia, integrating environment and development remains a cherished goal. Many of these countries share some of the key environmental characteristics of Pakistan such as rich natural resource base, extreme climate condition, and high population densities. They also share a colonial past that has shaped opinions, institutions and attitudes varyingly helping or impeding sustainability consideration in economic development. Therefore, the innovative approaches contemplated under the project and the resulting success of EMIS and related mainstreaming of sustainability in economic development would also be attractive for replication globally.

D.3.c. Key Risks and Assumption

176. Overall, assuming the government and stakeholders' support for the project as indicated before and during the project preparation continues, a smooth project implementation is expected. Yet the relevant risks are anticipated and addressed in the project design. The project's Logical Framework in Annex1provides details. The discussion here focuses on some of the key risks and assumptions.

177. One major risk stems from the need for greater mutual trust that typically characterizes a devolved or federated administration: provinces wish more devolution of power and authority and federation seeks to ensure that the state functions effectively and the nation progresses ahead together. The protracted debate on these issues led, in 2012, to the 18th Amendment in the Constitution of Pakistan whereby, among other things, the subject of 'environment' was devolved to the provinces. This has opened up questions as to the extent and process of coordination between the federation and the provinces. For example, areas such as costal environment would require a collaborative effort but who takes the lead when and where remains to be clarified. It is this new governance paradigm that some believe hindered the full realization of the outcomes of the NEMIS project. While these issues will no doubt sort themselves out in due course, the associated risks for the implementation of this project have been reduced and mitigated through several actions:

(a) The different components have been so designed that they clearly fall in the respective jurisdictions, with little or no overlaps to impede clarity in implementation;
(b) The funds are proposed to be allocated to the leads of the different components directly, providing them the space and freedom, to implement their respective components effectively;
(c) The project management structure including the executive committee, component coordination committees, and others have been designed such that effective coordination is achieved through cultivating ownership, collaboration, and value addition among the stakeholders matched by a clear mandate of the Executive committee to hold the overall project together; and,
(d) It is recommended that a set of internal memorandums of understanding are developed and agreed, in the beginning of the project, among the key implementing partners at the federal and provincial level to address any residual questions of compliance, coordination and reporting. This may or may not be needed eventually but a provision is made here to ensure there is no bottleneck in the smooth and successful implementation of the project.

178. Related is the risk of effective coordination in a project that is multi layered involving various divisions of the federal government, different departments of the provinces of Punjab and KPK, and other stake holders. The devolved yet affectively coordinated project implementation with clearly defined roles for key parts of the structure significantly mitigates the risk of complex and cumbersome

coordination. However, coordination among the organizations and stakeholders of the EMIS that the Pak EPA is tasked to implement would require more attention. The sheer number of organizations contributing information and making their portals and data basis available to EMIS is potentially large. Adding the organizations that gather and report primary data further increases this number. It is therefore recommended that:

(a) Effectuating EMIS starts with the existing organizations that were already engaged in the EMIS project, and slowly expand the network as the experience and capacity builds over time. Efforts shall be made to avoid creating a large network that may not take off under its own weight.
(b) Provincial EPAs may share the burden of coordination, especially in the area of primary date collection, reporting and quality assurance ; and,
(c) Digital technology and web tools such as conference calls, Skype, and Go To Meeting shall be employed as much as possible' This will allow convening big and small meetings as frequently as needed and without have having to incur major costs and time that extensive travels for face to face meetings entail.
(d) Face to face meetings are needed and useful, but if electronic meetings work, in addition to the inception planning meeting in the beginning, one inclusive meeting of stakeholders would suffice annually.

179. This assumes stakeholders would have the required computer equipment and reliable internet connections. Where necessary, the project funds shall be used to obtain the requisite access and capacity.

180. In countries like Pakistan with a large number of its population still requiring access to basic amenities of life, there is a general preference for external aid to fund 'brick and mortar' projects. Institutional and capacity building project are relatively less attractive, although necessary. The questionable impact of some of the past capacity building efforts reinforces such a perception that could potentially dampen stakeholders' enthusiasm to participate in the project and support it. To address this risk, the project design is based on leveraging existing structures than creating new ones, creating value added for all implementation partners, and most importantly, addressing some of the key barriers to environment-development integration that many of the past efforts ignored, or marginally addressed. These measures, together with the likely positive impacts of the project, are expected to enhance the stakeholders' understanding of the imperative of institutional capacity building for environment as well as their trust in related support efforts.

181. In consultations during the project preparation mission, most stakeholders came across very enthusiastic and supportive of the project goals, ideas and approaches; however some were less so partly due to the reasons mentioned above. There may also be issues of organizational inertia and internal politics. Lack of enthusiasm, even if in a minority of stakeholders especially if it is a vocal minority, can impede successful project implementation. The project's management structure, based on clear allocation of roles and responsibilities and creating an enabling environment, seeks to mitigate this risk. However, it will be important for both UNDP and the project management to continue to cultivate deeper ownership of the project and its outcomes, among the relevant stakeholders, during the course of implementation.

D.3.d. Gender Mainstreaming

182. Although gender-neutral themselves, the project interventions offers opportunities to further the mainstreaming of gender in sustainable development in some small albeit important ways that the project will seek to harness. In particular, the project will seek to:

(a) Involve in the EMIS organization that hold and produce information on gender issues;
(b) Design data collection tools that report gender segregated information as much as possible;
(c) Ensure eligible women participants are actively enlisted for participation in various training and awareness raising workshops;
(d) Engage women experts, where possible, for delivering the required training and educational lectures and workshops;
(e) National and Provincial State of Environment reports carry relevant gender data;
(f) Ensure research and policy components include addressing some key gender issues under the three Rio conventions;
(g) Engage eligible women researchers and policy professional for undertaking policy research studies under the project;
(h) Include female students in the internship and fellowship activities in the targe partner universities
(i) Make the Country Reports under Rio Conventions more inclusive of the relevant gender issues;
(j) Involve women parliamentarians in the activities under the component of engaged policy;
(k) Target the media support component such that it targets women issues and leverage participation and support of women journalists and media professionals for the purpose.

D.4. Stakeholders' Involvement

183. In the broader sense, the entire environment and development community is the stakeholder for this project for easy access to reliable environmental information is a common need and the integration of environment and development a shared goal. However, for the purpose of the project design and implementation, key stakeholders have been identified as those who would have a specific direct contribution to make or particular role to play in the project implementation. These stakeholders' were identified from screening of the project preparation documents such as PIF and PPG. The consultations with UNDP team yielded an initial list of stakeholders to be consulted. This list was continuously updated as the consultation process progressed.

184. The stakeholders' consultation process was designed in keeping with the time and resources available for the project preparation. Unlike other situations where one stakeholders' workshop would suffice to harness stakeholders input, the multitude of stakeholders, the federal governance structure of the country and recent devolution of the subject of environment to provinces warranted a broader approach. Thus the stakeholders' consultations were carried out both at the federal and provincial level, focusing on Punjab, KPK and Sind. It involved entailed individual and group meetings, workshops, phone calls and site visits with government agencies as well as civil society organizations.

185. At the federal level, besides meetings with UNDP staff, the consultation featured meetings with various tiers of management in the Ministry of Climate Change, Government of Pakistan as the focal ministry and main beneficiary of the project as well as meeting with its component agencies and units, namely, National Disaster Management Authority Unit, Office of the Inspector General of Forests, Office of the Director General Environment, and Pakistan Environmental Protection Agency. In

addition, meetings were also held with relevant officers of other federal government entities, namely Planning and Development Division of Pakistan, Ministry of Agriculture, SUPARCO, Metrology Department, and Bureau of Statistics. Some of the long serving environmental professionals in the Ministry of Climate Change retired recently. In the validation workshop, discussions were held with these former Government professionals to benefit from their institutional memory, knowledge and experience.

186. International and national NGOs have played an important role in the country's environmental movement. They have also piloted some of the earlier information management systems. Representatives of the key NGOs based in the capital were engaged, mostly in the beginning of the field mission, in Islamabad. Those based in the provinces were met during the provincial visits and meetings. It was useful to obtain their perspective

187. Three provincial workshops were held each in Punjab (Lahore), KPK (Peshawar) and Sind (Karachi). Other federating units such as Baluchistan, Northern Areas and Kashmir would not be possible to visit due to logistic and resource constraints but efforts were made to identify and consult resource persons from Baluchistan. In each of the provincial workshops, stakeholders from government and civil society were invited to attend. Annex 3.provides a list of the organizations and people consulted.

188. Validation of the emerging project proposals was pursued in tandem with the consultation process recognizing that understanding and ideas will evolve along the way. Thus issues and ideas raised in one phase of consultation were presented and validated in the subsequent phases of consultation. The same approach was followed in individual and group meetings. In practical terms, this meant that findings and recommendations emerging from initial consultations at federal level were presented at the first provincial workshop in Peshawar. The outcomes of the discussion from Peshawar were presented in the Punjab provincial workshop in Lahore, and outcomes from Lahore were presented at the Sind provincial workshop in Karachi.

189. The validation process culminated with two events at the federal level in Islamabad towards the end of the filed mission. One was a half-day validation workshop with broader stakeholder held on 27 June 2014. The agenda for this workshop is presented in Annex-4. The other was a specific debriefing event with the senior management of the Ministry of Climate Change, Government of Pakistan as the potential executing agency and proponent of the project. Besides other inputs, a schematic flow chart of a likely environmental information management system, presented as Annex-2, informed the discussion at both the validation events. The multi-tiered validation process allowed more time for validation discussions, enabled adapting and reaffirming the project ideas recurrently to the benefit of the project design, and supported a more informed consideration from stakeholders as they learnt what was discussed and agreed in preceding workshops and discussions. The validation process further continued with the key stakeholders in government and UNDP/GEF during the process of drafting this document.

190. These consultations helped in establishing the projects' focus and identify stakeholders that would have key roles to play in the project's implementation. Annex 5provides the details of key stakeholders' groups and their roles in relation to the project.

D.5. Monitoring and Evaluation

191. This section outlines the overall monitoring and evaluation (M&E) framework for the project and a corresponding budget. This framework will be refined and finalized pursuant to the stakeholders'

discussion, review and agreement in the inception workshop (IW). This will entail sharpening the indicators and means of verification, and clarifying the partners' role in relation to M&E.

192. The design of the M&E framework has been guided by the essential requirements of UNDP-GEF for similar projects. It is premised on the M&E being conducted according to the established UNDP and GEF procedures. The overall responsibility will rest with project team represented by the leads of the different components as summarized in section above and coordinated by the Project Coordinator. UNDP Country Office and UNDP/GEF Regional Coordination Unit will provide the requisite support from their end. The Project Framework (Section D.2.d) forms the basis of M&E.

D.5.a: Project Inception (Workshop)

193. A Project Inception Workshop (IW) will be organized soon upon the project's approval but not later than two months of the commencement of implementation; earlier the better. It will involve representatives of GEF-UNDP, Ministry of Climate Change as the implementing agency, organizations responsible for leading the coordination of different components, respective select government divisions and departments taking part in implementation, and organizations that are partners to the Pakistan EMIS and are contributing their information and databases to the EMIS portal.

194. The main aim of the IW is to anticipate the full course of project's implementation over its 3 years period keeping in view the end results, clarifying the strategies, processes and milestones for the purpose. More specifically, it will:

(a) Clarify the projects goals, objectives and strategies, deepening their ownership and facilitating their implementation by the project partners;
(b) Outline the annual phasing of the project activities, and by extension their priority for implementation in time; and
(c) Finalize preparation of the project's first annual work plan and corresponding budget. This will entail a review of the project log frame (indicators, means of verification, assumptions), adapting and clarifying it further as necessary or useful.

195. A corresponding set of IW management objectives will include:

(a) Teambuilding through introduction and working together of staff of the implementing agency, implementation partners and UNDP-GEF;
(b) Understanding with requisite clarity the projects structures in relation to oversight, decision making , coordination, reporting, communication lines and conflict resolution;
(c) Clarifying mutual roles and responsibilities of UNDP-GEF, implementing Agency, Executing Agency, Program components and implementing partners in relation to the various aspects of project management outlined later in Section F ; and,
(d) Familiarizing implementing partners with the UNDP-GEF reporting and monitoring and evaluation requirements, as well as with the project related budgetary planning, budget reviews, and mandatory budget re-phasing;

196. A Project Inception Report (IR) report of the Inception Workshop is a key reference document and must be prepared and shared with participants to formalize various agreements and plans decided during the meeting immediately on its completion. The details of the contents of the report are outlined in section D.5.c.

D.5.b. Key M&E Events and Responsibilities

197. A detailed schedule of project review meetings will be developed by the project management, discussed with implementing partners during the inception workshop and included in IR providing a schedule for meetings of the Project Executive Committee (PEC) and key M&E events.

198. The responsibility for the project's oversight in general will rest with the PEC supported by the Project Coordinator who shall monitor the implementation progress pursuant to the annual work plans. S/he will refine the projects' indicators and reporting framework in consultation with leads of the different components and GEF-UNDP during the Inception Workshop. . S/he will likewise define the detailed targets, indicators and means of verification for the first year to be included in the year's work plan. The project Coordinator will do the same for subsequent years as part of the project annual review and planning processes and in consultation with the leads of different components. S/he will report to the PEC and UNDP-CO any significant delays o rbottlenecks in implementation for timely remedial action. Unless warranted by their importance or urgency, such issues will be reported as a part of the project's quarterly and yearly reports.

199. Monitoring and reporting of the components will be the responsibility of the components coordinators who will send their reports to the overall project coordinator to integrate in one overall project progress reports to be shared with all key stakeholders.

200. UNDP-CO will carry its monitoring responsibility through periodic meetings with the Ministry of Climate Change. For the first six months, such review meetings will be held quarterly or more often to ensure a swift and timely take off for the project. In the later period, half yearly meetings would suffice. However, in the event of any important or urgent matters requiring resolution, review meetings may be scheduled as needed. The quarterly /yearly progress report, or any special review reports as may be the case, will make the basis of such meetings.

201. UNDP representatives will visit and meet the leads and partners of different components twice a year in close coordination with the overall project coordinator. They will participate in a sample of training and awareness raising workshops and seminars organized at the federal and provincial level to develop a firsthand understanding of the capacity building efforts. A report of such visits and meetings will be shared with the implementing agency, PEC, and leads of the different components.

202. Tripartite Project Review (TPR) will be the highest strategic and policy level review taking place annually and involving project funders, executing agency and implementing agency. The overall Project Coordinator, with input from the Component Coordinators, will prepare an Annual Project Report (APR) and submit it to UNDP-CO at least two weeks prior to the TPR for review and comments. The APR will form the basis for discussions in the TPR meeting. The implementing agency (Ministry of Climate Change) will present the APR to the TPR, highlighting policy issues and recommendations as well as any agreement reached by stakeholders during the APR preparation on how to resolve any operational issues. The TRP would also consider any reviews undertaken of a specific project component.

203. Importantly, the TPR considers the Project's Terminal Report (TPR). In doing so it considers the implementation of the project as a whole, paying particular attention to whether the project has achieved its stated objectives and contributed to the broader environmental objective. It decides whether any actions are still necessary, particularly in relation to sustainability of project results, and acts as a vehicle through which lessons learnt can be captured to fed into other projects under implementation or formulation. The TPR has the authority to suspend disbursement if project

performance benchmarks are not met. Benchmarks will be developed at the Inception Workshop, based on delivery rates, and qualitative assessments of achievement of outputs.

D.5.C. Project Reporting

204. The project reporting has been conceived to ensure accountable, effective and successful project implementation. However, effort has also been made to avoid monitoring and reporting becoming excessively burdensome to the detriment of the project and its objective. The key project reporting requirements, their frequency and schedule are listed below. The responsibility for different reports and the purpose they are meant to serve are also mentioned briefly. The Project Coordinator in conjunction with the UNDP-GEF extended team, and with input from the Component Coordinators, will have the overall and ultimate responsibility for the preparation and submission of these reports.

A Project Inception Report (IR): It will be prepared immediately following the Inception Workshop and include a detailed First Year/ Annual Work Plan divided in quarterly time-frames detailing the activities and progress indicators that will guide implementation during the first year of the project. This Work Plan will include the dates of specific field visits, support missions from the UNDP-CO or the Regional Coordinating Unit (RCU) or consultants, as well as time-frames for meetings of the project's decision making structures. The Report will also include the detailed project budget for the first full year of implementation, prepared on the basis of the AWP, and including any monitoring and evaluation requirements to effectively measure project performance during the targeted 12 months' time-frame. The Inception Report will include a more detailed narrative on the institutional roles, responsibilities, coordinating actions and feedback mechanisms of project-related partners. In addition, a section will be included on progress to date on project establishment and start-up activities and an update of any changed external conditions that may affect project implementation. When finalized, the report will be circulated to project counterparts who will be given a period of one calendar month in which to respond with comments or queries. Prior to this circulation of the IR, the UNDP Country Office and UNDP-GEF's Regional Coordinating Unit will review the document.

Quarterly:

205. Progress made shall be monitored in the UNDP Enhanced Results Based Managment Platform.

206. Based on the initial risk analysis submitted, the risk log shall be regularly updated in ATLAS. Risks become critical when the impact and probability are high. Note that for UNDP GEF projects, all financial risks associated with financial instruments such as revolving funds, microfinance schemes, or capitalization of ESCOs are automatically classified as critical on the basis of their innovative nature (high impact and uncertainty due to no previous experience justifies classification as critical).

207. Based on the information recorded in Atlas, a Project Progress Reports (PPR) can be generated in the Executive Snapshot.

208. Other ATLAS logs can be used to monitor issues, lessons learned etc... The use of these functions is a key indicator in the UNDP Executive Balanced Scorecard.

Annually:

209. Annual Project Review/Project Implementation Reports (APR/PIR): This key report is prepared to monitor progress made since project start and in particular for the previous reporting period (30 June to 1 July). The APR/PIR combines both UNDP and GEF reporting requirements.

210. The APR/PIR includes, but is not limited to, reporting on the following:

(a) Progress made toward project objective and project outcomes - each with indicators, baseline data and end-of-project targets (cumulative)
(b) Project outputs delivered per project outcome (annual).
(c) Lesson learned/good practice.
(d) AWP and other expenditure reports
(e) Risk and adaptive management
(f) ATLAS QPR
(g) Portfolio level indicators (i.e. GEF focal area tracking tools) are used by most focal areas on an annual basis as well.

211. **Specific Thematic Reports:** On a call from UNDP, UNDP-GEF or the Implementing Agency, routed through UNDP, the overall Project Coordinator will prepare or cause to prepare Specific Thematic Reports (STR), focusing on specific issues. The request for a STR will be provided in writing by UNDP clearly indicating the issues that need to be reported on. These reports are, without limitation, meant to serve as lessons learnt, specific oversight in certain areas, or as troubleshooting to overcome obstacles in implementation. Such requests shall be kept to the minimum and shall allow reasonable time for their preparation.

212. **Technical Reports**: Technical Reports are detailed documents covering specific areas of analysis or specializations within the overall project. The requirements for such reports will be identified and provided for in the Inception Report and eventually in Annual Work Plan(s). The list of requirements may be reviewed and revised periodically. Prepared internally by the project or externally through consultants, Technical Reports are tools to provide comprehensive and specialized analyses of the defined research issues in relation to the project and make substantive contribution towards generating and sharing knowledge and good practice locally and globally.

213. **Project Terminal Report:** During the last three months of the project the project team will prepare the Project Terminal Report. This comprehensive report will summarize all activities, outputs and outcomes of the Project as well as an overview of its structures and systems, strengths and challenges, lessons learnt or any other important aspects of the project. Presenting the ultimate view of the project implementation and success (or not), PTR will offer recommendations especially as to the post-project sustainability and replication of Project's outcomes. The Overall Project Coordinator, representing the Implementing Agency, is responsible for preparing the PTR and its submission to UNDP-CO and UNDP-GEF's Regional Coordinating Unit. PTR shall be prepared in draft at least two months in advance of the last Tripartite Review (TPR), and will serve as the basis for discussions in the TPR.

Mid-term of project cycle:

214. The project will undergo an independent Mid-Term Evaluation at the mid-point of project implementation (insert date). The Mid-Term Evaluation will determine progress being made toward the achievement of outcomes and will identify course correction if needed. It will focus on the effectiveness, efficiency and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project's term. The organization, terms of reference and timing of the mid-term evaluation will be decided after consultation between the parties to the

project document. The Terms of Reference for this Mid-term evaluation will be prepared by the UNDP CO based on guidance from the Regional Coordinating Unit and UNDP-GEF. The management response and the evaluation will be uploaded to UNDP corporate systems, in particular the UNDP Evaluation Office Evaluation Resource Center (ERC)).

D.5.d. Independent Evaluation

215. An independent Final Evaluation will take place three months prior to the final Project Board meeting and will be undertaken in accordance with UNDP and GEF guidance. The final evaluation will focus on the delivery of the project's results as initially planned (and as corrected after the mid-term evaluation, if any such correction took place). The final evaluation will look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental benefits/goals. The Terms of Reference for this evaluation will be prepared by the UNDP CO based on guidance from the Regional Coordinating Unit and UNDP-GEF.

216. The Terminal Evaluation should also provide recommendations for follow-up activities and requires a management response which should be uploaded to PIMS and to the UNDP Evaluation Office Evaluation Resource Center (ERC).

D.5.e. Audit Arrangements

217. The Government will provide the Resident Representative with certified periodic financial statements, and with an annual audit of the financial statements relating to the status of UNDP (including GEF) funds according to the established procedures set out in the Programming and Finance manuals. The Audit will be conducted by a special and certified audit firm. UNDP will be responsible for making audit arrangements for the project in communication with the Project Implementing Partner. UNDP and the project Implementing Partner will provide audit management responses and the Project Coordinator and project support team will address audit recommendations. As a part of its oversight function, UNDP will conduct audit spot checks at least two times a year. Audit on project will follow UNDP Financial Regulations and Rule and applicable Audit policies.

D.5.f. Learning and Knowledge Sharing

218. Results from the project will be disseminated within and beyond the project intervention zone through existing information sharing networks and forums.

219. The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to project implementation though lessons learned. The project will identify, analyze, and share lessons learned that might be beneficial in the design and implementation of similar future projects.

220. There will be a two-way flow of information between this project and other projects of a similar focus.

221. Identifying and analyzing lessons learned is an on- going process, and the need to communicate such lessons is one of the project's central contributions is a requirement to be delivered at least once every year. UNDP/GEF shall provide a format and assist the project team in categorizing, documenting and reporting on lessons learned. Annual Project Implementation Review (PIR) would be one of the vehicles for the purpose. These lessons will be shared widely through the EMIS portal that this project seeks to make functional. Other tools such as newsletters and general publications shall also be used for the purpose.

222. Project Publications will form a key method of crystallizing and disseminating the results and achievements of the Project. These publications may be scientific or informational texts on the activities and achievements of the Project in the form of journal articles, multimedia publications and others. These publications may be Technical Reports, depending upon their relevance and scientific orientation or may be summaries or compilations of a series of Technical Reports and other research.

223. The project team will determine if any of the Technical Reports merit formal publication, and will (in consultation with UNDP, the government and other relevant stakeholder groups) also plan and produce these publications in a consistent and recognizable format. Project resources will need to be defined and allocated for these activities as appropriate and in a manner commensurate with the project's budget.

D.5.g. Communications and Visibility Requirements

224. Full compliance is required with UNDP's Branding Guidelines. These can be accessed at http://intra.undp.org/coa/branding.shtml, and specific guidelines on UNDP logo use can be accessed at: http://intra.undp.org/branding/useOfLogo.html. Amongst other things, these guidelines describe when and how the UNDP logo needs to be used, as well as how the logos of donors to UNDP projects needs to be used. For the avoidance of any doubt, when logo use is required, the UNDP logo needs to be used alongside the GEF logo. The GEF logo can be accessed at: http://www.thegef.org/gef/GEF_logo. The UNDP logo can be accessed at http://intra.undp.org/coa/branding.shtml.

225. Full compliance is also required with the GEF's Communication and Visibility Guidelines (the "GEF Guidelines"). The GEF Guidelines can be accessed at: http://www.thegef.org/gef/sites/thegef.org/files/documents/C.40.08_Branding_the_GEF%20final_0.pdf. Amongst other things, the GEF Guidelines describe when and how the GEF logo needs to be used in project publications, vehicles, supplies and other project equipment. The GEF Guidelines also describe other GEF promotional requirements regarding press releases, press conferences, press visits, visits by Government officials, productions and other promotional items.

226. Where other agencies and project partners have provided support through co-financing, their branding policies and requirements should be similarly applied.

D.5.h. Monitoring and Evaluation Work Plan and Indicative Budget

The monitoring and evaluation plan along with indicative budget is summarized in the Table 1 below:

Table 1: Projects Monitoring and Evaluation Work Plan and Indicative Budget (USD)

M&E activity	Responsible Parties	Budget	Time frame
Inception Workshop (IW)	Project Management Team (PMT) UNDP, UNDP-GEF	5,000	Within first three months of project start up
Inception Report	PMT PEC, UNDP CO	None	Immediately following Inception Workshop

M&E activity	Responsible Parties	Budget	Time frame
Measurement of Means of Verification for Project Progress and Performance (measured on an annual basis)	Oversight by PC, UNDP-CO UNDP-GEF		Annually prior to APR/PIR and to the definition of annual work plans
Quarterly/Half Yearly progress reports and operational reports	PC/PMT UNDP-GEF UNDP-GEF	None	Quarterly first two Quarters and Half Yearly thereafter
APR/PIR	PC/PMT PEC UNDP-GEF	None	Annually
Tripartite Review (TPR) and TPR report	NPD Ministry of Climate Change UNDP CO PC/PMT UNDP-GEF	None	Every year, upon receipt of APR/PIR
Project Executive Committee meetings	NPD PC/PMT	None	Following Inception Workshop and half yearly thereafter
Technical and periodic status reports	PC/PMT Can do it as required.		To be determined by Project team and UNDP-CO
Mid-term Evaluation	Project manager and team UNDP CO UNDP RCU External Consultants (i.e. evaluation team)	Indicative Cost:USD 15,000	At the mid-point of project implementation (Not Required for MSP project but can be undertaken if it is deemed necessary by the Project Board)
Final External Evaluation	PC/PMT PB, UNDP-GEF External Consultants (evaluation team)	Indicative Cost: USD 15,000	At least three months before the end of project implementation
Terminal Report	PC/PMT PEC External Consultant	None	At least one month before the end of the project
Audit	UNDP-CO PC/PMT	USD 8,000	Yearly

M&E activity	Responsible Parties	Budget	Time frame
Visits to field sites (UNDP staff travel costs to be charged to IA fees)	UNDP-CO, UNDP-GEF Government representatives	None	Yearly average one visit per year
TOTAL indicative COST Excluding project and UNDP staff time costs		USD 43,000	

E. Financing

E.1 Financing Plan

227. The financing of this project will be provided by the GEF, with co-financing from UNDP and Federal and Provincial Governments of Pakistan. This financing is allocated across the three main project outcomes. Table 2 below provides an overall summary of the project costs. Annex 6 and Annex 7 respectively provide the outcome and output level details of the project budget.

Table 2: Overall Summary of the Project Costs (US$)

Total Project Budget by Component	GEF	Co-Financing	Project Total
Component 1: Outcome 1	80,500	124,000	204,500
Component 1: Outcome 2	265,000	348,000	613,000
Component 2: Outcome 3	559,500	196,350	755,850
Project Management	90,500	271,700	362,200
Total project costs	995,500	940,050	1,935,550

228. The project budget is derived from the overall work plan presented in Annex 8. The costs entailed by project management and operations necessary to deliver the work plan and eventually the outcomes are outlined in Annex 9. A summary of it is presented in Table 3 hereunder.

Table 3: Estimated Cost of Project Management for the Entire Project (USD)

Sr.	Budget Line	Estimated Staff Months	GEF	Co-Financing	Project Total
1	Locally recruited personnel (1): Project Coordinator	36	41,000	38,440	79,440
2	Locally recruited personnel (1): Assistant Project Officer	36	0	23,816	23,816
3	Locally recruited personnel (1): Assistant Project Officer	36	0	7,944	7,944

Sr.	Budget Line	Estimated Staff Months	GEF	Co-Financing	Project Total
4	Internationally recruited consultant (3) :	3	0	30,000	30,000
5	National Project Director -NPD	36	0	18,000 (In-kind from Govt.)	18,000
6	Provincial Project Directors PPD (Two Positions)	36	0	36,000 (In-kind from Govt.)	36,000
7	Monitoring, evaluation and Reporting(3)		0	13,000	13,000
8	Equipment and Furniture (4)		0	20,000	20,000
9	Communication& Audio Visual Equip(4)		10,000	15,000	25,000
10	Travel (6)		14,000	25,500	39,500
11	Transportation (4)		0	15,000	15,000
12	Miscellaneous (4)		612	29,000	29,612
13	UNDP Direct Project Services Cost (DPC)		24,888	0	24,888
	Total project management cost		90,500	271,700	362,200

Notes:

(1) Local consultants in this table are those who are hired for functions related to the management of project. The cost will be borne by GEF and UNDP as co-financers.

(2) The International Consultant will conduct an independent final evaluation of the project.

(3) UNDP will co-finance the Inception Report, Midterm evaluation and regular audit of the project, being GEF Implementing Agency of the Project. Details of Monitoring and Evaluation Work Plan and Budget are provided at Table 1.

(4) UNDP will co-finance these costs, e.g., procurement of equipment and furniture. through UNDP co-financing resources

(5) An internationally recruited consultant will be contracted to undertake the independent final evaluation towards the end of the project.

(6) The travel budget includes the costs of daily subsistence allowance, terminal expenses, and return airfare for the Project team.

229. Several long and short term consultants are envisaged to provide technical assistance and help with the project implementation. The break-down of cost on this account is provided in Table 4 below.

Table 4: Estimated Cost of Consultants (Technical Assistance) for the Entire Project (USD)

Technical Assistance Consultants	Estimated Staff months	GEF	Co-Financing	Project Total

2 Data Systems Expert (BOS, Pak EPA)	12	30,000	0	30,000
2 Quality Assurance (EPA Punjab & EPA KPK)	12	30,000	0	30,000
3 Environmental Reporting Specialist(s)	21	63,000	0	63,000
1 EMIS Management Specialist	30	90,000	0	90,000
1 IT Expert	30	45,000	15,000	60,000
1 Policy and Research expert at project level	9	22,500	0	22,500
4 Organization Change and Development Experts	30	0	60,000	60,000
3 MEAs Experts	9	27,000	0	27,000
3 Capacity Development experts each for P&D Division and P&D Departments.	36	90,000	0	90,000
1 Media Consultant	2	4,000	2,000	6,000
Total		**401,500**	**77,000**	**478,500**

E.2. Cost Effectiveness

230. The project design is based on the acute awareness that the available resources are limited and has therefore sought to follow the most cost effective approach to achieving the planned outcomes. Foremost, while PIF talked about an EMIS as the essential backbone for integrating environment and development, the design team has refrained from creating another EMIS initiative and has instead opted to leverage the investments and outputs under the NEMIS project concluded two years ago that the Government of Pakistan is following up. Some marginal investments under this project, mainly in terms of facilitation and stimulation, will enable taking the NEMIS key outputs and outcomes to fruition that wasn't possible to closure of the project before their completion.

231. Cost effectiveness is also manifest in the approach of implementing the existing organizations and structures and avoiding the creation of new additional ones as much as possible. It will enable to take the project off the ground swiftly that wouldn't be possible if too many of new staff had to be recruited, inducted and trained. The additional human resources contemplated under the project are essentially for the additional coordination capacity that the project implementation will require during its implementation.

232. Emphasis on adapting a market based approach to sourcing and generating information will bring the market efficiencies in play, and is premised on drawing on existing capacities, as much as possible, and on using the available fiscal and human resources effectively. Equally important is the approach to capacity building and enhancing public understanding and support for environment-development integration. The capacity building activities would entail bringing resource persons to the work environment of the target audience than to take the target beneficiaries away to other locations at considerable expense of time and funds.

233. Using the popular TV programs to bolster public and political opinion and support for mainstreaming sustainability would be the most cost effective way to reach masses. The alternative approach of workshops, seminars, advertisements in press and electronic media would be limited in their reach and far more expensive.

234. It is only with carefully choosing such cost effective approaches that it would be possible to achieve what the project is set out to do with limited funds available to it.

235. Another important indicator of cost-effectiveness is the very low percentage of the GEF grant being used for project management. In this case, for every dollar of the GEF grant, an additional two dollars were leveraged to manage the project. See Table 5 for details.

Table 5: A Summary of the Financial Contributions to Different Components of the Project (USD)

Project Budget Component by Contribution type	Contribution	Percentage (%)
Outcome 1: GEF	80,500	4
Outcome 1: Co-Financing (Parallel and in-kind)	124,000	6
Outcome 2: GEF	265,000	14
Outcome 2: Co-Financing(Parallel and in-kind)	348,000	18
Outcome 3: GEF	559,500	29
Outcome 3: Co-Financing(Parallel and in-kind)	196,350	10
Project Management: GEF	90,500	5
Project Management: Co-Financing (cash by UNDP)	217,700	11
Project Management: (In-kind by Got)	54,000	3
Total	1,935,550	**100**

E.3. Co-financing

236. National assurance is indicated by the government's significant co-financing to project activities in form of Parallel co-financing through their current and future initiatives, and also adding in-kind contribution to the project. The Government of Pakistan (through federal and provincial government departments) is providing US$ 722,350 of co-financing. This co-financing is significant and represents the commitment of the Government to what the project seeks to accomplish. About US$ 636,350 of the estimated contribution is in fact support through real cash as parallel financing will be directly invested in delivering the relevant project outputs and outcomes. Remaining US$ 86,000 will be in-kind support in terms of the salaries of staff (decision-makers and planners), who will be spending time away from their regular work participate in project activities and help their implementation. See table 6 below.

Table 6: Sourcesof Co-financing (USD)

Name of Co-financier	Classification	Type	Amount	
			Confirmed	Unconfirmed
UNDP	GEF Implementing Agency	Grant	217,700	0
Pak EPA/ Ministry of Climate Change	Federal Government	Parallel	488,850	0
		In-Kind	50,000	0
Punjab EPA/ Planning & Development Department	Provincial Government, (Punjab) Provincial	Parallel	73,750	0
		In-kind	18,000	0
KPK EPA./ Planning & Development Department	Government, KhyberPukhtunKhwa (KPK)	Parallel	73,750	0
		In-kind	18,000	0
Total Co-financing			**940,050**	**0**

E.4. Total GEF Work Plan and Budget

Table 7 : Summary of Yearly Project Financing:

Source of funds	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Total (USD)
GEF	378,488	309,300	307,712	995,500
UNDP (cash)	79,200	70,000	68,500	217,700
Government of Pakistan (Parallel and in-kind)	246,450	237,950	237,950	722,350
Total	**704,138**	**617,250**	**614,162**	**1,935,550**

Table 8: Summary of project inputs

Award ID:	**TBC**
Project ID:	TBC
Award Title:	Generating Global Environmental Benefits from Improved Decision Making Systems and Local Planning in Pakistan
Business Unit:	**PAK10**
Project Title:	Generating Global Environmental Benefits from Improved Decision Making Systems and Local Planning in Pakistan
PIMS No:	**4939**
Implementing Partner(Executing Agency):	**Federal Ministry of Climate Change, Government of Pakistan**

GEF Outcome/Atlas Activity	Responsible Party/ Implementing Agent	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Total (USD)	Budget Notes
Outcome 1: Regular availability of consistent and reliable environmental data	**CCD**	**62000**	**GEF**	71300	Local Consultants	60,000	0	0	60,000	1
				72100	Contractual services: Companies	6,900	6,800	6,800	20,500	2
					Sub-total GEF	**66,900**	**6,800**	**6,800**	**80,500**	
					Total Outcome 1	**66,900**	**6,800**	**6,800**	**80,500**	
Outcome 2: A coordinated and robust environmental information management system	**CCD**	**62000**	**GEF**	71300	Local Consultants	82,500	82,500	82,500	247,500	1
				72100	Contractual services: Companies	5,900	5,800	5,800	17,500	2
					Sub-total GEF	**88,400**	**88,300**	**88,300**	**265,000**	
					Total Outcome 2	**88,400**	**88,300**	**88300**	**265,000**	

GEF Outcome/Atlas Activity	Responsible Party/ Implementing Agent	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Total (USD)	Budget Notes
Outcome 3: Enhanced commitment and capacity for sustainable development planning and legislation.	**CCD**	**62000**	**GEF**	71300	Local Consultants	34,000	30,000	30,000	94,000	1
				72100	Contractual services: Companies	157,592	154,204	153,704	465,500	2
					Sub-total GEF	**191,592**	**184,204**	**183,704**	**559,500**	
					Total Outcome 3	**191,592**	**184,204**	**183,704**	**559,500**	
Project Management	**CCD/UNDP**	**62000**	**GEF**	71400	Contractual Services - individual	14,000	13,500	13,500	41,000	3
				71600	Travel	5,000	5,000	4,000	14,000	4
				72400	Communication& Audio Visual Equip	4,000	3,000	3,000	10,000	5
				74500	Miscellaneous	300	200	112	612	6
				74599	UNDP Cost-recovery Charges bills (DPC)	8,296	8,296	8,296	24,888	7
					Sub-total GEF	**31,596**	**29,996**	**28,908**	**90,500**	
		04000	**UNDP**	71400	Contractual Services - individual	24,200	23,000	23,000	70,200	8
				72200	Equipment and Furniture	20,000	0	0	20,000	9
				71600	Travel	8,000	9,000	8,500	25,500	4
				72400	Communication& Audio Visual Equip	5,000	5,000	5,000	15,000	5
				71200	International Consultants	0	15,000	15,000	30,000	10
				74100	Professional Services	2,000	3,000	3,000	8,000	11
				75700	Meetings/Workshops	5,000	0	0	5,000	12

GEF Outcome/Atlas Activity	Responsible Party/ Implementing Agent	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Total (USD)	Budget Notes
				74700	Transport	5,000	5,000	5,000	15,000	13
				74500	Miscellaneous cost	10,000	10,000	9,000	29,000	6
					Sub-total UNDP	**79,200**	**70,000**	**68,500**	**217,700**	
					Total Project Management	**110,796**	**99,996**	**97,408**	**308,200**	
					GEF Total	**378,488**	**309,300**	**307,712**	**995,500**	
					UNDP Total	**79,200**	**70,000**	**68,500**	**217,700**	
					Total Project	**457,688**	**379,300**	**376,212**	**1,213,200**	

Budget Notes

1 *GEF financing for seven local experts (Roles and responsibilities are identified in ToRs Annex 10.)*

2 *GEF financing for various contractual services (Cost associated with other project activities, such as meeting expenses, publications, etc.)*

3 *GEF will partially finance the cost of a Project Coordinator*

4 *GEF and UNDP financing for project related travel inside the country*

5 *GEF and UNDP financing for project related communications, Audio Visual equipment.*

6 *GEF and UNDP financing for Miscellaneous expenses of the project (e.g.; utility bills for project office, printing or publishing if required, etc.)*

7 *Direct Project Services Costs (DPCs) according to Annex 13*

8 *UNDP will co-finance the cost of a Project staff: Project Coordinator and Assistant Project officer*

9 *UNDP financing for Equipment and Furniture*

10 *UNDP will finance the cost of an international consultant to conduct Mid-term review and terminal evaluation as per M&E work plan*

11 *Audit cost*

12 *Inception workshop*

13 *Transportation cost*

F. Institutional Coordination and Support

F.1. Core Commitments and Linkages

237. Alongside GEF and Government of Pakistan, UNDP is co-funding this project. UNDP's interest stems from its own global and national strategies and from its commitment to help implement GEF portfolio in the countries of its operations. It derives inspiration and strength from its mandate to help manage environment for sustainable development as also manifest in the Millennium Development Goals. A review of UNDP's global portfolio indicates the breadth and depth of its experience in integrating environment and development.

238. In 2014, UNDP is helping implement more than a thousand environment projects with funds in excess of USD 680 million across the world. These also include environmental information and integration projects such as the 3-year 'Biodiversity Planning Project' in Zimbabwe that , building on the past achievements in biodiversity planning and reporting, focuses on integrating Zimbabwe obligations under the CBD into its national development and sector planning framework which is similar to what this projects aims to do so in Pakistan. In addition, knowledge sharing is one of the key attributes of UNDP's own operation that better enables them to implement such projects.

239. In Pakistan, UNDP has a long history spanning more than half a century engaging and supporting big and small projects ranging from institutional development, to capacity building, poverty alleviation, environment protection and nature conservation. Ministry of Environment and now its successor the Ministry of Climate Change has been one of UNDP's main partner in the country. Its current portfolio includes: Conservation of Habitats and Species in Baluchistan, Mainstreaming Biodiversity Conservation into Production Systems in the Juniper Forest Ecosystem and the Protection and Management of Pakistan's Wetlands Project, co-financed with the Netherlands, and the GEF supported Mountain and Markets Project. UNDP has considerable experience of partnering with a range of federal and provincial/territorial government agencies as well as NGOs including AKRSP, IUCN, WWF and others.

240. The past collaboration has included some high profile and successful projects such as Mountain Areas Conservancy Project (1999-2007). Most relevant to this proposal is the National environmental Management Information Systems (NEMIS) project that was implemented with funds from the Netherlands, UNDP and Government of Pakistan (2005-2012). This project has done a lot of spade work for establishing an EMIS for the country but, unfortunately, had to be concluded before some of the key outcomes could reach fruition. EMIS was one of them. With that knowledge and experience, UNDP is uniquely placed to implement this project in Pakistan not only to leverage the millions of dollars of investment and years of work, but to further the goal of environment-development integration, by extension, implementation of MEAS in Pakistan and the contribution to global environmental benefits of conserving biodiversity and stabilizing climate change, among others.

241. Environmental information has been a perceived need that donor have been willing to support in Pakistan. However, this support has been project specific, and seldom looked into the overall needs for an environmental information system. While the past projects achieved a lot, a functioning EMIS being in place as a part of the overall environmental infrastructure remains an unmet aspiration. International funding for environment in Pakistan has been going through waves. There were many environmental projects in nineties but then the donor support tapered off. The interest in Pakistan's environment has resurged but much of the international attention and resources are understandably devoted to address the external and internal security challenges and their underlying socio economic causes characterizing the country. Pakistan itself is also devoting a significant part of its own resources to the priority issues of security and peace.

242. Nonetheless, the Government of Pakistan is seeking to do more for the country's environment and its international commitments. The country's Annual Development Plan for 2014-15, highlighting the imperative of sustainable growth through integration of environmental considerations in development, lists following as some of the programs in this direction.

- Establishment of Environment Section in Planning & Development Division. (Islamabad)
- Establishing National Multilateral Environmental (MEAs) Secretariat (Islamabad)
- Establishment of Clean Development Mechanism Cell (Islamabad)
- Establishing of National Bio-safety Centre (NBC) Project, (Islamabad)
- Sustainable Land Management Project Phase-1, (Islamabad)
- Development and Implementation of Water and Sanitation Management Information system in Pakistan
- Establishment of Centre for Sustainable Organization
- Establishment of Geometric Center for Climate Change and Sustainable Development 2012-2015, (Islamabad)
- Indoor Air Quality in Buildings

243. The project for Geometric Center in particular signifies the government commitment to provide several years of funding for Pak EPA to complete and follow up on the NEMIS project. Post the 18th Amendment, provinces are also making more allocations for environment. Punjab and KPK are leading the way. Punjab will be investing Rs. 85 million in a closely related initiative of environmental profile of Punjab over the next 3 three years, Likewise, the KPK Government has embarked on a green development program over the next 4 years through the provincial forest department. In an environment where provinces seek to carry the environmental responsibility devolved to them, there are real possibilities for this project to leverage significant collaboration from the provinces.

244. In the beginning of 2014, the World Bank's portfolio in Pakistan consisted of 24 active projects with a total commitment of $4.4 billion. The Bank manages a Multi-Donor Trust Fund for conflict affected areas of about $175.6 million, which provides grants to KP, FATA and Baluchistan. Leveraging Civil Society for Improving Nutrition at Local Level; Sind Agricultural Growth Project; and Dasu Hydropower Stage I Project are some of the recently approved projects in the Bank's portfolio. Other donors such as the USAID, DIFID,, FAO, GIZ, The Netherlands, Swiss Development Cooperation are also funding several big and small projects, especially in areas of energy, infrastructure development,

sustainable use of natural resources, and governance, all of which indicate the commitment of the donor community to support, and of the Government of Pakistan to partner and harness that support, for the country's long term sustainable development.

F.2. Implementation and Execution Arrangements

245. Historically, a major factor in the success and failure of projects has been the institutional arrangements for coordination and implementation, particularly in developing countries. Coordination thrives on transparency that is often impeded by vested interests, completion, and (lack of) respect for authority that characterize many of the development environments. To circumvent these difficulties, projects often end up with complex management and coordination structures that prove a drag on implementation.

246. In this project effort is made for implementation arrangements that are relatively straight forward despite the complexity of the project itself. This arrangement recognizes that the Ministry of Climate Change, Government of Pakistan has the lead responsibility and role for implementing the project with Federal Bureau of Statistics, Planning and Development Division of Pakistan, Pak EPA, Punjab P&D Department, KPK P&D Department, Punjab EPA and KPK EPA as the key organization with an implementation and coordination role around their respective components.

247. It is also recognized that there are other key stakeholders, especially in relation to the EMIS whose continued contribution and sustained support is essential for the implementation the success of EMIS and the project. And then there are the target beneficiaries who do not part take implementation but who will benefit from the project interventions, such as the officers of the ministries and departments, members of media and parliaments who will be engaged through briefings, seminars and field visits.

248. Further, experience suggests that larger the coordination or management groups, harder it is to convene them; meetings tend to be expensive, time seldom enough for effective participation by all, and the discussions thus tend to be dominated by few of the vocal participants. The proposed project implementation structure has been conceived in consideration of this recognition.

249. The project will be implemented by the Ministry of Climate Change, Government of Pakistan, according to UNDP's National Implementation Modality (NIM) as per NIM guidelines agreed by UNDP and the Government of Pakistan. The /Implementing Partner will sign a grant agreement with UNDP and will be accountable to UNDP for the disbursement of funds and the achievement of the project objective and outcomes, according to the approved work plan.

250. A National Project Director (NPD) nominated by the Ministry of Climate Change will convene and coordinate a Project Executive Committee (PEC), including DG EPA, Chief Environment, Planning and Development Division, a representative of Pakistan Bureau of Statistics (PBS), a representative each from the P&D Departments and EPAS of Punjab and KPK, a representative of the UNDP, and two representatives of the civil society, one of them being IUCN with more than 30 leading environmental NGOs in its fold. . This group of 10 shall be primarily charged with:

- Adopting the project's Inception Plan
- Approving annual work plans and overall budgets of the project;
- Reviewing Progress of implementation,
- Approving the Terms of Reference for various implementation committees at the federal and provincial level; and,

- Adapting the project design and course of implementation as the progress might warrant, including any major adjustments to the budget.

251. The PEC will stay strategic in its focus, will divest itself from implementation responsibilities, and instead create an enabling environment, allowing the necessary space and freedom, for the different component to be implemented effectively. PEC will have its maiden meeting soon after the Inception Workshop to adopt the project's inception plan. Thereafter, it will meet twice a year.

252. The NPD will be an existing senior Officer of BS 20 or above. S/he will not be remunerated by the project but the project will fund a Project Coordinator (PC) that will assist him in preparing the Executive Committee Meetings and following up on its decisions. The PC will essentially be a support to NPD and the Executive Committee and will not have any management authority of its own except as explicitly specified for some of the components here.

253. These lead organizations, such as the Pakistan EPA, Environment Section of Planning and Development Division, Ministry of Climate Change (Project Coordinator) and Pakistan Bureau of Statistics will constitute their own implementation committees drawn from their implementations partners to help implement their respective components. The Terms of reference of these Committees will be established by the respective leads with the approval of the Project Executive Committee.

254. At the provincial level, two separate implementation committees will be established, one led and coordinated by the DG EPA and the other led and coordinated by Chief Environment, P&D for the implementation of the relevant outputs they are respectively responsible to deliver or coordinate as listed in Table 9.The terms of reference for these committees will be developed respectively by DG EPA and Chief Environment in consultation with their implementation partners and implemented with the approval of the Project's Executive Committee.

255. In that sense, each of the sub components will be treated as a sub-project that the respective leads (DG Pak EPA, Project Coordinator, Chief of Environment Planning and Development Division, Bureau of Statistics, DGs Provincial EPA and Chief Environment Provincial P&Ds) will implement with complete autonomy and freedom but in close coordination with the other components of the project. Each component lead will prepare their respective work plans and budgets for submission to the Project Coordinator who will consolidate the overall project work plan and budget for approval by the Executive Committee. Upon approval by the Executive Committee, funds will be made available to the lead agencies directly. Considering the nature of the work of BOS, its relationship to Pakistan State of Environment reporting tasked to Pak EPA, and the responsibility of Pak EPA for the overall EMIS, the budget for the BOS component will be managed and coordinated by Pak EPA who will ensure timely access of BOS to the funds allocated for the outputs and activities in their mandate.

256. The complexity and breadth of the EMIS entails engagement of a large number of stakeholders and organizations contributing information to the systems. It will be the responsibility of the EMIS Coordinator, housed in the agency to which EMIS management is outsourced, to keep them engaged and supportive. They will be organized in EMIS Stakeholders Group whose terms of Reference will be established by the Pak EPA EMIS Coordinator with the approval of the Executive Committee.

257. Apart from the Overall Project Coordinator supporting the Project Executive committee and EMIS Coordinator at the agency to which the NEMIS follow up is out sourced, each of the agency with a coordination responsibility, namely, Pak EPA, Chief Environment, Planning and Development Division, Chief Environment Punjab, Chief Environment KPK, DG EPA Punjab, DG EPA KPK, and Pakistan Bureau of Statistics will have a dedicated coordinator funded, as necessary, from the GEF funds, or co-financing or parallel financing. . To avoid confusion in nomenclature, they will be called Components Coordinators. The provision is further clarified in the suggested TORs for the key project Personnel at Annex10.

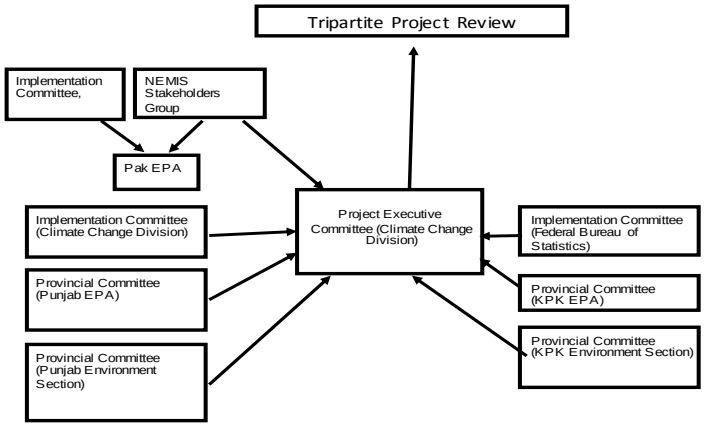
258. In addition, the EMIS Coordinator will be assisted by one IT professionals to keep the EMIS functional and Operating. All account and administrative support to the coordinators will be provided by the respective agencies as in kind contribution.

259. Together, the overall Project Coordinator (PC) and Component Coordinators (CPs) will form the Project Management Team.

260. A Tripartite Review (TPT) will be the highest level of annual consultation between the project funders, executing agency and implementing agency that will review the progress of funding and implementation based on the reports provided to by the Project Coordinator through UNDP.

261. Fig 2 below is a graphical representation of the overall project management structure:

Fig:.....Overall Project Management Structure



262. The budget and implementation responsibility for the different outcomes of the project will vest in the respective lead organizations as indicated in Table 9 below

Table 9: Distribution of Implementation Roles and Responsibilities (By Outputs)

		Outputs		Lead Role	
				Coordination	Implementation
1	Regular availability of consistent and reliable environmental data;	1.1	A Unified Collection, Storage and Access System for Primary Data	Pak EPA	Pak EPA
		1.2	An Established List of Priorities for Data Gathering and Reporting	Pak EPA	Pak EPA
		1.3	A Report of Bench Marking of Environmental Statistics of Pakistan with the NEMIS Identified Environmental Data Requirement	PAK EPA	• Pak EPA; • EPA Punjab; • EPA KPK
		1.4	An Agreement between the Ministry of Climate Change (CCD) and Pakistan Bureau of Statistics (PBS)	Pak EPA	CCD PBS
		1.5	Reformed Data Collection Tools and Approaches	PBS	PBS
		1.6	Environment Statistics of Pakistan	PBS	PBS
		1.7	Mandate for Collecting Residual Data	Pak EPA	Pak EPA
		1.8	Protocols of Quality Assurance of Environment Data	• Punjab EPA • KPK EPA	• Forest and Agriculture Departments in Punjab and KPK
2	A coordinated and robust environmental information management system,	2.1	An Effectively Operating National Environmental Information Management System	Pak EPA	Pak EPA
		2.2	Policy Research and Analysis	• Pak EPA • EPA Punjab • EPA KPK (in their respective jurisdictions)	• Housing & Works, Water and Power, and National Food Security & Research Divisions; and

		Outputs		Lead Role	
				Coordination	Implementation
					• Forest, Irrigation, Agriculture & Public Health Departments in Punjab and KPK
		2.3	Pakistan's State of Environment Report (s)	Pak EPA	Pak EPA
		2.4	Provincial State of Environment Reports	• Punjab EPA • KPK EPA	• Punjab EPA • KPK EPA
		2.5	Bench Marking Pakistan State of Environment Report with Provincial Environment Reports	PAK EPA	• Pak EPA • Punjab EPA • KPK EPA
		2.6	Country Reports under Multilateral Agreements	Project Coordinator (PC) Ministry of Climate Change (CCD)	• Focal Point CBD • Focal Point UNFCC • Focal Point UNCCD • Focal Point POPs
		2.7	Harnessing Research Capacity and Opportunities in Universities	PAK EPA	• Punjab EPA • KPK EPA • Agriculture University, Peshawar • Punjab University, Lahore
3	Enhanced commitment and capacity for sustainable development planning and legislation.	3.1	Exposure and Training of Civil Service	• Environment Section, P& D Division for federal level, • Environment Section in P&D Punjab for Punjab • Environment Section in KPK P&D for KPK	• Federal P&D, Housing & Works, Water & Power, and National Food Security & Research Divisions; and • Forest, Irrigation, Agriculture &

		Outputs		Lead Role	
				Coordination	Implementation
					Public Health Departments in Punjab and KPK
		3.2	Enhanced Access of Planning Functions to Environmental Expertise	• Environment Section, P& D Division at for federal level • Environment Section in P&D Punjab for Punjab • Environment Section in P&D KPK for KPK	• Environment Section, P& D Division • Environment Section in P&D Punjab • Environment Section in P&D KPK
		3.3	An Engaged Polity	• Environment Section, P& D Division at for federal level • Environment Section in P&D Punjab for Punjab • Environment Section in P&D KPK for KPK	• Pakistan P&D Division • P&D Department Punjab • P&D Department KPK
		3.4	Supportive Public Opinion	Project Coordinator, Ministry of Climate Change	Project Coordinator, Ministry of Climate Changethrough select popular TV channels in Pakistan
		3.5	Media Support	Project Coordinator, Ministry of Climate Change	Ministry of Climate Change with support from relevant electronic and print media groups.

To help clarify this further, the following Table presents the distribution of roles and responsibilities by organizations

Table 10: Distribution of Implementation Roles and Responsibilities (By Organizations)

Institution	Coordination Role	Implementation Role
Ministry of Climate Change (Project Coordinator)	• Country Reports under Multilateral Agreements (2.6) • Supportive Public Opinion (3.4) • Media Support (3.5)	• An Agreement between the Ministry of Climate Change (CCD) and Pakistan Bureau of Statistics (PBS) (Output 1.4) • Supportive Public Opinion (3.4) • Media Support (3.5)
Pak EPA	• A Unified Collection, Storage and Access System for Primary Data (Output 1.1) • An Established List of Priorities for Data Gathering and Reporting (Output 1.2) • A Report of Bench Marking of Environmental Statistics of Pakistan with the NEMIS Identified Environmental Data Requirement (output 1.3) • An Agreement between the Ministry of Climate Change (CCD) and Pakistan Bureau of Statistics (PBS) (Output 1.4) • Mandate for Collecting Residual Data (output 1.7) • An Effectively Operating National Environmental	• A Unified Collection, Storage and Access System for Primary Data (Output 1.1) • An Established List of Priorities for Data Gathering and Reporting (Output 1.2) • A Report of Bench Marking of Environmental Statistics of Pakistan with the NEMIS Identified Environmental Data Requirement (output 1.3) • Mandate for Collecting Residual Data (output 1.7) • An Effectively Operating National Environmental Information Management System (outcome 2.1) • Pakistan's State of Environment Report(s) (output 2.3) • Bench Marking Pakistan State of Environment Report with Provincial Environment Reports (output 2.5) • Harnessing Research Capacity and Opportunities in Universities (Output 2.7)

Institution	Coordination Role	Implementation Role
	Information Management System (outcome 2.1) • Policy Research and Analysis (Output 2.2 part related to federal level) • Pakistan's State of Environment Report (s) (output 2.3) • Bench Marking Pakistan State of Environment Report with Provincial Environment Reports (output 2.5) • Harnessing Research Capacity and Opportunities in Universities (Output 2.7)	
Punjab EPA	• Protocols of Quality Assurance of Environment Data in Punjab (Output 1.8 part) • Policy Research and Analysis (Output 2.2 part related to Punjab) • • Provincial State of Environment Reports (Output 2.4)	• A Report of Bench Marking of Environmental Statistics of Pakistan with the NEMIS Identified Environmental Data Requirement (Output 1.3) • Provincial State of Environment Reports (Output 2.4) • Bench Marking Pakistan State of Environment Report with Provincial Environment Reports (output 2.5) • Harnessing Research Capacity and Opportunities in Universities (Output 2.7)

Institution	Coordination Role	Implementation Role
KPK EPA	• Protocols of Quality Assurance of Environment Data in KPK (Output 1.8 part) • Policy Research and Analysis (Output 2.2 part related to KPK) • Provincial State of Environment Reports (Output 2.4)	• A Report of Bench Marking of Environmental Statistics of Pakistan with the NEMIS Identified Environmental Data Requirement (Output 1.3) • Provincial State of Environment Reports (Output 2.4) • Bench Marking Pakistan State of Environment Report with Provincial Environment Reports (output 2.5); • Harnessing Research Capacity and Opportunities in Universities (Output 2.7)
GOP P&D Division (Environment Section)	• Exposure and Training of Civil Service (output 3.1) • Enhanced Access of Planning Functions to Environmental Expertise (3.2) • An Engaged Polity (3.3)	• Exposure and Training of Civil Service (output 3.1) • Enhanced Access of Planning Functions to Environmental Expertise (3.2) • An Engaged Polity (3.3)
Pakistan Bureau of Statistics	• Reformed Data Collection Tools and Approaches (output 1.5) • Environment Statistics of Pakistan (output 1.6)	• Reformed Data Collection Tools and Approaches (output 1.5) • Environment Statistics of Pakistan (output 1.6)
GOP Housing and Works Division		• Policy Research and Analysis (Output 2.2) • Exposure and Training of Civil Service (output 3.1
GOP, Water and Power Division		• Policy Research and Analysis (Output 2.2) • Exposure and Training of Civil Service (output 3.1
GOP Food Security & Research Division		• Policy Research and Analysis (Output 2.2) • Exposure and Training of Civil Service (output 3.1
Focal points for CBD, UNFCC and UNCCD		• Country Reports under Multilateral Agreements (2.6)

Institution	Coordination Role	Implementation Role
Forest Department Punjab		• Protocols of Quality Assurance of Environmental Data (output 1.8) • Policy Research and Analysis (Output 2.2) • Exposure and Training of Civil Service (output 3.1
Irrigation Department, Punjab		• Policy Research and Analysis (Output 2.2) • Exposure and Training of Civil Service (output 3.1
Agriculture Department, Punjab		• Protocols of Quality Assurance of Environmental Data (output 1.8) • Policy Research and Analysis (Output 2.2) • Exposure and Training of Civil Service (output 3.1
Public Health Engineering Department, Punjab		• Policy Research and Analysis (Output 2.2) • Exposure and Training of Civil Service (output 3.1
Forest Department, KPK		• Protocols of Quality Assurance of Environmental Data (output 1.8) • Policy Research and Analysis (Output 2.2) • Exposure and Training of Civil Service (output 3.1
Irrigation Department, KPK		• Policy Research and Analysis (Output 2.2) • Exposure and Training of Civil Service (output 3.1
Agriculture Department, KPK		• Protocols of Quality Assurance of Environmental Data (output 1.8) • Policy Research and Analysis (Output 2.2) • Exposure and Training of Civil Service (output 3.1
Public Health Engineering Department, KPJ		• Policy Research and Analysis (Output 2.2) • Exposure and Training of Civil Service (output 3.1
P&D Punjab (Environment Section)	• Exposure and Training of Civil Service (output 3.1) • Enhanced Access of Planning Functions to Environmental Expertise (3.2) • An Engaged Polity (3.3)	• Exposure and Training of Civil Service (output 3.1 • Enhanced Access of Planning Functions to Environmental Expertise (3.2) • An Engaged Polity (3.3)

Institution	Coordination Role	Implementation Role
P&D KPK Environment Section	• Exposure and Training of Civil Service (output 3.1) • Enhanced Access of Planning Functions to Environmental Expertise (3.2) • An Engaged Polity (3.3)	• Exposure and Training of Civil Service (output 3.1) • Enhanced Access of Planning Functions to Environmental Expertise (3.2) • An Engaged Polity (3.3)
University of Agriculture Peshawar		• Harnessing Research Capacity and Opportunities in Universities (Output 2.7)
Punjab University Lahore		• Harnessing Research Capacity and Opportunities in Universities (Output 2.7)

263. Understandably somewhat overlapping, it is important to distinguish this list of implementing organizations from the list of key stakeholders' groups in Annex 5 at the stakeholders' analysis section before. The list in Table 10 above includes entities that will directly receive project funds and will have the responsibility for delivering relevant outputs while Annex 5 mentions the broader key stakeholders groups.

264. While several different organizations will receive project funds, to avoid project management being unduly complicated, each will not be cost-centers of its own. Instead, all project funds will flow through the following select entities that will further spend or disburse these funds to target beneficiaries as listed in Table 10 above. For the purpose of this project, they will be called Cost Centers. Table 11 below summarizes the Cost Centers. They will receive and manage the project funds and carry the responsibility for delivering or overseeing the delivery (where assigned to another organization) of the relevant project outputs as listed for them in Table 9 above**.**

Table 11: Project Cost Centres and their Responsibilities for Budget Management and Output Delivery

Institution	Responsibility for Budget Management &Outputs Delivery
Ministry of Climate Change (Project Coordinator)	Overall Coordination of the Entire Project Coordination and Implementation of the Component Specifically Assigned to Project Coordinator (Outputs 2.6, 3.4 and 3.5 as listed in Table 9) Country Reports under Multilateral Agreements (2.6) Supportive Public Opinion (3.4) Media Support (3.5)
GOP P&D Division	Overall Component Coordination Exposure and Training of Civil Service (output 3.1) Enhanced Access of Planning Functions to Environmental Expertise (output 3.2 part)

Institution	Responsibility for Budget Management &Outputs Delivery
(Environment Section)	An Engaged Polity (Output 3.3 part)
Pakistan Bureau of Statistics	Overall Component Coordination Reformed Data Collection Tools and Approaches (output 1.5) Environment Statistics of Pakistan (output 1.6)
Pak EPA	Overall Component Coordination A Unified Collection, Storage and Access System for Primary Data (Output 1.1) An Established List of Priorities for Data Gathering and Reporting (Output 1.2) A Report of Bench Marking of Environmental Statistics of Pakistan with the NEMIS Identified Environmental Data Requirement (output 1.3) An Agreement between the Ministry of Climate Change (CCD) and Pakistan Bureau of Statistics (PBS) (Output 1.4) Mandate for Collecting Residual Data (output 1.7) Protocols of Quality Assurance of Environment Data at Federal Level (Output 1.8 part) An Effectively Operating National Environmental Information Management System (outcome 2.1) Policy Research and Analysis at Federal Level (Output 2.2 Part) Pakistan's State of Environment Report(s) (output 2.3) Bench Marking Pakistan State of Environment Report with Provincial Environment Reports (output 2.5) Harnessing Research Capacity and Opportunities in Universities (Output 2.7)
P&D Punjab (Environment Section)	Overall Component Coordination Exposure and Training of Civil Service (output 3.1) Enhanced Access of Planning Functions to Environmental Expertise (3.2 part) An Engaged Polity (3.3 part)
P&D KPK (Environment Section)	Overall Component Coordination Exposure and Training of Civil Service (output 3.1) Enhanced Access of Planning Functions to Environmental Expertise (3.2) An Engaged Polity (3.3 part)
Punjab EPA	Overall Component Coordination Protocols of Quality Assurance of Environment Data in Punjab (Output 1.8 part) Policy Research and Analysis in Punjab (Output 2.2 Part) Provincial State of Environment Reports (Output 2.4)
KPK EPA	Overall Component Coordination Protocols of Quality Assurance of Environment Data in KPK (Output 1.8 part) Policy Research and Analysis in KPK (Output 2.2 Part) Provincial State of Environment Reports (Output 2.4)

F.3. Administration, Financial disbursements, Auditing and Procurements

265. Project Cycle Operations Manual (PCOM-IV) procedures (i.e. NIM) will be followed for staff recruitment; administrative matters, financial disbursements. Audit on project will follow UNDP Financial Regulations and Rules and applicable Audit policies.

266. **The Project Assurance** function will be performed by UNDP. The function supports the Project Board by carrying out objective and independent project oversight and monitoring functions. The role ensures appropriate project management milestones are managed and completed. Project Assurance has to be independent of the Project Coordinator; therefore the Project Board cannot delegate any of its assurance responsibilities to the Project Director or the Project Coordinator.

267. **Project Acknowledgements**: In order to accord proper acknowledgement to GEF for providing funding, a GEF logo would appear on all relevant GEF project publications, including among others, project hardware and vehicles purchased with GEF funds. Any citation on publications regarding projects funded by GEF would also accord proper acknowledgment to GEF.

268. n line with the United Nations reform principles, especially simplification and harmonization, the Annual Work Plan will be operated with the harmonized common country programming instruments and tools, i.e. the UNDAF results matrix, M&E and the Harmonized Approach to Cash Transfer (HACT). At the day-to-day operational level, ATLAS will be used for keeping track of timely and efficient delivery of the activities and or effective financial monitoring under the Annual Work Plan.

F.4 Legal Context

269. The legal context for UNDP-assisted program and projects in Pakistan is established by two major agreements: 1) the Convention on the Privileges and Immunities of the United Nations, given affect by Act 1948 of the Pakistan Constituent Assembly (Legislative) and assented to on June 16, 1948; and 2) the agreement between the Government of the Islamic Republic of Pakistan and the United Nations Development Program concerning assistance under the Special Fund Sector of the United Nations Development Program, signed by the parties on February 25, 1960.

270. This Project Document shall be the instrument (therein referred to as a Plan of Operation) envisaged in Article 1, Paragraph 2 of the agreement between the Government of the Islamic Republic of Pakistan and the United Nations Development Program concerning assistance under the Special Fund Sector of the United Nations Development Program.

271. UNDP-assisted programs and projects for Pakistan are planned and executed in accordance with the global UNDP Financial Rules and Regulations and the Project Cycle Operations Manual for Pakistan.

272. The following types of revisions may be made to this project document with the signature of the UNDP resident representative only, provided he or she is assured that the other signatories of the project document have no objections to the proposed changes: a) Revisions in, or addition of, any of the annexes of the project document; b) Revisions which do not involve significant changes in the immediate objectives, outputs or activities of the project, but are caused by the rearrangement of inputs already agreed to or by cost increases due to inflation; and, c) Mandatory annual revisions

which re-phase the delivery of agreed project inputs or increased expert or other costs due to inflation or take into account agency expenditure flexibility.

273. The Implementing Partner Executing Agency will provide the Resident Representative based in Islamabad, Pakistan with certified periodic financial statements, and with an annual audit of the financial statements relating to status of UNDP (including GEF) funds according to the established procedures set out in the UNDP User Guide.

Part II: ANNEXES

Annex 1: Project's Logical Framework

This project will contribute to the following Country Program Outcome as defined in CPAP or CPD: A comprehensive approach integrating environmentally sustainable development, global environmental concerns and commitments in national development planning, with emphasis on poverty reduction and with quality gender analysis.
Country Program Outcome Indicators: Commitments under global conventions on Biodiversity being implemented
Primary applicable Environmental and Sustainable Development Key result Area: Mainstreaming environment and energy in country's development agenda.
Applicable GEF Strategic Objective and Program: Strategic Objectives 2: 'to generate, access and use of information and Knowledge', and Strategic Objective 3: 'to strengthen capacities to develop policy and legislative development for achieving global benefits', of the focal area of 'Cross-Cutting Capacity Development' under GEF- 5.
Applicable GEF Expected Outcomes: 1. Institutions and stakeholders have skills and knowledge to research acquire and apply information collective actions (2.1); 2. Public awareness raised and information management improved (2.3); and 3. Enhanced institutional capacities to plan, develop policies and legislative frameworks for effective implementation of global conventions (3.1)
Applicable GEF Outcome Indicators: 1. Institutions and stakeholders trained how to use different tools available to manage information (*Number of Institutions and Stakeholders Trained)* - (2.1.1); 2. Knowledge platform established to share lessons learned among CBOs and CSOs across SGP participating countries *(Number)* – (2.3.1) 3. Public awareness raised through workshops and other activities*(Number)* (2.3.2); and, 4. Institutional capacities enhanced in recipient countries to implement global conventions *(Number of institutions strengthened)* – (3.1.2)

Award ID:	TBC	Project ID:	TBC
Award Title:	GEF-PIMS4939		
Business Unit:	PAK10		
Project Title:	Generating Global Environmental Benefits from Improved Decision Making in Pakistan		

PIMS no.:	4939
Executing Agency	Ministry of Climate Change, Government of Pakistan

Overall Goal: Generating Global Environmental Benefits from Improved Decision Making in Pakistan				
Project Objective: Removing the barriers to environmental information management and mainstreaming global environment concerns into economic decision making.				
Indicators	Baseline	*Target*(end of project)	Sources of Verification[1]	Risks and Assumptions
1. An Environmental Information management System for Pakistan developed under the NEMIS project is functioning effectively and sustainably	A foundation laid under the NEMIS project before exits but EMIS is not functional yet. Also, a framework of indicators and variables for environmental reporting is available but hasn't been approved and adopted; Likewise State of the environment reports for Pakistan and different provinces have been drafted but not published yet.	1.1. EMIS for Pakistan fully operational; 1.2. Environmental reporting (variables & indicators) framework approved & adopted. 1.3. Two annual State of environment (SOE) reports each for Pakistan, Punjab and KPK published.	1.1. Internet - continued and reliable access to EMIS; 1.2. Government Notification ion approving the environmental reporting framework; 1.3. Published reports of state of environment in Pakistan, Punjab and KPK; 1.4. Published SOE reports increasingly reflect the adopted environmental reporting framework.	It is assumed that most of the spade work has already been done, and that it wouldn't take much of the project's resources to have the NEMIS pending outputs reach fruition. The approval and adoption of the environmental reporting framework will require an understanding and agreement among stakeholders, notably, with the provinces to follow the framework consistently.

2. Enhanced capacities for integrating environment in economic development by the Government of Pakistan as well as the provinces of Punjab and KPK.	Much of the laws, policies and guidelines for integrating environmental consideration in development projects exits but capacities to implement they are patchy, mostly residing in ministries and departments directly related to environment. Even here, the needs for exceed the capacities, and the environmental capacities in the ministries and departments dealing with economic development are almost non existing.	2.1. Planning and development functions in the government of Pakistan, Punjab and KPK have enhanced access to environmental knowledge and capacity; 2.2. About 400 Officers or more from Ministries or departments dealing with economic development, the federal and provincial level in Punjab and KPK have basic training and exposure to the essentials of environment and development; 2.4.One or more professional networks of environmental experts is in place and accessible to P&D Division and PD departments in Punjab and KPK for help with environmental reviews of development projects;	2.1. Project Progress Reports 2.2. Interviews with key participating organizations 2.3. Feedback from a sample of target beneficiaries. 2.4 Records of participants in of different training workshops and sessions.	There are no major risks as such but it is assumed that the target organizations and their staff will be interested to participate in the environmental training and exposure programs. It is also assumed that the governments will be interested and supportive of trying the alternative approach of capacity building through professional networks.
3. A Market mechanism for sourcing and supplying environmental information.	There is little, if at all any, market based approach to sustainability in capacity building for environment.	A market based approach to sustainability in capacity building for environment is successfully pilot tested for replication and scaling up later.	1. Project reports2. Verification from participants of experts' network making a part of the market based approach: 3. MOUs/agreements between entities and supplying information.	It is assumed there are enough willing and able participating entities for the market based approach to be initiated, tested and established.

4. Public Opinion is better informed and more supportive of environmental protection and sustainability	Most people are currently little aware of the environment issues and must less about the need to integrate environment and development.	People across the different economic and demographic strata in Pakistan have a better understanding of the environmental and of the need to protect and use it sustainably.	1. Successful telecast of two popular TV drama serials; 2. A public opinion baseline survey; 3. A repeat public opinion poll at the end of the project.	No Major risks. The popular TV channels, it is believed, would want to engage in the project implementation.
5. Enhanced and sustained political support to mainstream sustainability in economic development.	Most of the economic development projects miss on adequate assessments of their environmental impacts as well on the reviews of these impacts during the processes of project approval.	An increasing number of economic development projects befit from adequate and competent environmental impact assessment that are influential in shaping the design and course of such projects for greater sustainability.	1. Records of Pak EPA, Punjab EPA and PKP EPA for IIEs and EIAs; 2. Records of Government of Pakistan P&D Division and P&D Departments in Punjab and KPK of environmental reviews of economic development projects; 3. Records of participating economic ministries and departments of the environmental research and analysis of future policies, laws and plans and the influence of such analysis on eventual decisions.	The achievement of this indicator is contingent on the willingness and support of the participating government ministries, departments and NGOs to try the alternate market based approaches. Most essential is an effective engagement of the members of parliament and provincial assembles.
Outcome 1. Availability of Consistent and Reliable Environmental Data				
Indicators	Baseline	*Target*(end of project)	Sources of Verification[1]	Risks and Assumptions

1. Extent to which adequate, consistent, reliable and up-to-date data on Pakistan's Environment is available	Environment data in Pakistan is fragmented. Different organizations tend to generate and use their respective data that is seldom widely shared. Relatively more comprehensive data is gathered Pakistan Bureau of Statistics, but it is incomplete. There are also often questions as to the reliability off data.	A Unified Collection, Storage and Access System for Primary Data managed by Pakistan Bureau of Statistics	1. Pakistan Bureau of Statistics2. Feedback from Pak EPA and other stakeholders3. Revised and improved/new protocols for gathering and reporting environmental data4. Component reports of the agencies gathering and reporting primary data to Bureau of Statistics.	1. An agreement between Ministry of Climate Change, Pak EPA and Pakistan Bureau of Statistics on environment data gathering and reporting reforms/improvements.2. An agreement between Bureau of Statistics, its counterpart in Provinces, and the agencies gathering primary data
2. Extent to which Quality and reliability of environment data is enhanced	The quality and reliability of data, including for environment, in Pakistan is often questioned. Sometimes it is a question of perception stemming from variability introduced by variation in sourcing, other times the concern is real. Limited work, if much, has been done in the past to address the issue of quality and reliability if environment data	Quality assurance tools are developed and pilot tested in 4 agencies gathering primary environment data each in Punjab and KPK.	1. Project progress reports; 2. Review of data reported by the participating agencies	An agreement and effective collaboration between provincial EPAs responsible for coordinating the related output and the target data gathering agencies. These agencies will need to have the motivation to participate in what may otherwise appear marginal to their main stream operation

3. A compendium of Pakistan's environmental statistics, with enhanced contents, regularly published.	A compendium of the country's environmental statistics is published by Pakistan Bureau of Statistics, periodically; The last one was published in 2014. Another one is proposed for 2014. Its contents however need enhancement to match the country's environmental reporting requirements.	The Compendium of Environmental Statistics for Pakistan are published regularly every year with improved contents matching the country's environmental reporting requirements	1. Publishing record of Pakistan Bureau of Statistics 2. Feedback from Pakistan EPA and other stakeholders on content improvement; 3. Comparison of the 2010, 2014 compendiums' contents with those published in future.	The Ministry of Climate Change, Bureau of Statists, and PAK EPA agree on the enhanced contents and process improvement as well as on regular annual publication of the compendium.
Output 1.1: A Unified Collection, Storage and Access System for Primary Data Output 1.2: An Established List of Priorities for Data Gathering and Reporting Output 1.3: A Report of Bench Marking of Environmental Statistics of Pakistan with the NEMIS Identified Environmental Data Requirement Output 1.4: An Agreement between the Ministry of Climate Change (CCD) and Pakistan Bureau of Statistics (PBS) Output 1.5: Reformed Data Collection Tools and Approaches Output 1.6: Environment Statistics of Pakistan Output 1.7: Mandate for Collecting Residual Data Output 1.8: Protocols of Quality Assurance of Environment Data				
Outcome 2: A Coordinated and Robust Environmental Information Management System				
Indicators	Baseline	*Target*(end of project)	Sources of Verification[1]	Risks and Assumptions
1. Existence of an effectively functioning web (EMIS) portal hosting a multitude of data basis from participating organizations	The spade work for it has already been done. The portal is partially operating with some data hosed in COMSATS under mandate from Pak EPA	National EMIS for Pakistan fully functional in year-1 and reliably operating during the course of the project and afterwards.	Internet/National EMIS Portal	An effective collaboration between the completed NEMIS project, its successor Geometric Centre in EPA and this project.

2. Sustained participation and continuous updating of the respective environmental databases by the respective participating organizations in National EMIS	The different environmental organization generating and holding environmental information in the country were brought together under the NEMIS project. However, the overall management structure for sustaining a functioning EMIS remained to be established	An effective management and coordination structure securing sustained participation and contributions of the existing EMIS partner organizations is established in year-1 and sustainably operated thereafter, making it more inclusive and broader over time.	1. Pak EPA Records 2. Records of the meetings and conferences; 3. Review of the content of EMIS portal at the beginning and end of the project, and periodically in between.	Pak EPA and the organization it outsources the EMIS Coordination to have the interest and ability to effectuate sustain and grow the Pakistan EMIS. Also, it is assumed the participating organizations have the motivation and incentive to continuously update their information and databases contributed to and through the EMIS.
3.. Existence of Pakistan's Annual State of Environment Report(s)	The spade work for the Pakistan's First State of Environment Report was done under NEMIS project but the report itself could not be produced.	Pakistan's First State of Environment Report published in year-1 and, one more annual report produced thereafter.	1. Records of the Government of Pakistan/Pak EPA; 2. EMIS Web Portal	Most of the work is done. A limited project input and support will be needed to stimulate and enable the achievement of this important indicator of a functioning EMIS
4. Existence of Federal Government and the provincial state of environment reports with reliable data.	The environmental reporting by the Federal Government is mostly based on information supplied by the provinces. |The provinces also sometimes produce their own environmental report/profiles. The information	1. Bench marking of Environmental Statistics of Pakistan with the NEMIS Identified Environmental Data Requirement	1. Report of bench marking of Pakistan State of the Environment Report with provincial environment reports/profiles in Punjab and KPK. 2. Review of the contents of Pakistan State of the Environment Reports and provincial environment reports/profiles	It is assumed that the devolution of 'environment' post the 18th Amendment to Pakistan's constitution will not hinder collaboration, and that an agreement will have been reached on coordination of reporting by the provinces and the federal government.

	in two sets of reports is not always consistent, partly due to timing and sources. There is also a significant duplication of efforts.			
5. Extent to which country reporting against the three multilateral environmental agreements of CBD, UNFCC and CCD is enhanced.	Pakistan has been seeking to regularly report against the three Rio Conventions. The secretariats of the conventions often fund the preparation of these reports but the consistent availability of environmental information leaves room for improvement.	A total of three Country Reports due under CBD, UNFCC and CCD due during the project are produced in time with enhanced content and quality.	1. Project Progress Reports 2. Country Reports for CBD, UNFCCC and CCD.	Financial resources for producing the country reports as such are not a constraint. The project contribution will be mainly through refinements in primary data gathering and reporting. It will also finance analysis and research on select issues to fill any critical gaps in the reporting as a part of the overall improvements in Pakistan EMIS
6. Extent to which Synergy between environmental research, policy, reporting and practice has been effective	A lot of the research is carried out in universities but links to policy and practice are weak or missing. On the other hand, environmental organizations need resources for essential research to fill critical gapes in information.	Institute and pilot test need-based research collaboration between Pakistan EPA, Provincial EPAs, and two universities, one each in Punjab and KPK, involving a total of 12 short research assignments during the project period	1. Project Progress Reports 2. Research Reports and publications; 3. Feedback from collaborating	Existence of mutual interest is assumed. It is also assumed universities already have access to funds for their graduate students' research that it will adapt to the needs of EPAs. The project will fund some additional research EPAs require and wouldn't be possible to fund from universities' own resources.

Output 2.1: An Effectively Operating National Environmental Information Management System Output 2.2: Policy Research and Analysis Output 2.3: Pakistan's State of Environment Report(s) Output 2.4: Provincial State of Environment Reports Output 2.5: Bench Marking Pakistan State of Environment Report with Provincial Environment Reports Output 2.6: Country Reports under Multilateral Agreements Output 2.7: Harnessing Research Capacity and Opportunities in Universities

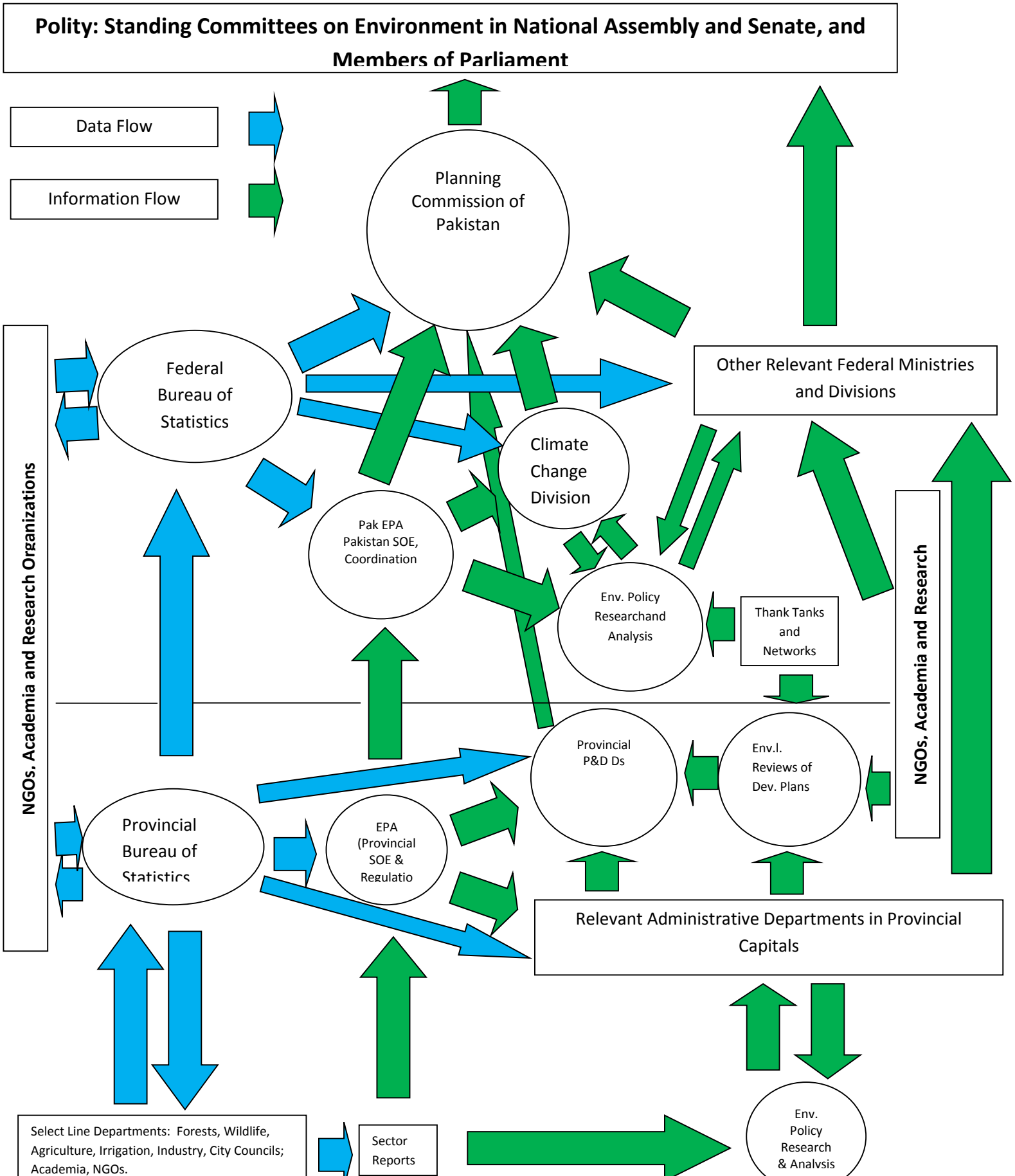
Outcome 3: Enhanced commitment and capacity for sustainable development planning and legislation				
Indicators	Baseline	*Target*(end of project)	Sources of Verification[1]	Risks and Assumptions
1. Extent to which Understanding of environment issues among planners for economic development in public sector is enhanced	Environmental capacity in the country is limited. Much of what exits is in select environmental institutions of the governments and NGOs. Officers in government ministries and departments dealing with economic development have a scant exposure to the issues of environment; and even less to global environmental obligations of Pakistan.	A core of 400 officers in economic development ministries and departments are exposed to the essentials of environment, through 90 workshops or seminars at respective ministries or departments and 12 guest-lectures in relevant training institutions.	1. Reports of relevant workshops and seminars; 2. Review of the content and resources for the workshops and seminars 3. Project Progress Reports 4. Participants feedback	The officers are interested and available for training, and that the respective ministries, departments and institutions are supportive and would enable the organizations of training and workshops.

2. Extent to which mechanisms for enhanced access to environmental expertise and competence (required for informed economic decision making) are effective	Past efforts of capacity building for environment have focussed on the environment functions. Little or no attention has been paid to economic development sectors where such capacities are needed most. Even in the environment functions that were targeted, lasting capacity has been hard to build, affected by the temporary nature of the initiatives and frequent transfers characterizing the civil service in Pakistan.	Develop, design and pilot test an alternate market based approach to capacity development for environment.	1. Project Progress Reports 2. Existence of one or more environmental experts network 3. Reports of research, analysis and reviews outsourced to thank tanks and professional networks.	The Planning and Development Division, provincial P&D Departments, and EPAs are interested to explore, test and support the alternate of market based approach.
3.Extent to which public opinion and support for environment protection and friendly development is enhanced	Environmental awareness in Pakistan has certainly increased over the years but is uneven. Much of the voting public in rural areas is not literate and ignorant or at best indifferent to the broader issues of environment. Awareness raising through the written word has	(a) Two popular TV drama serials to Increase the environmental understanding and support of masses, reachable by popular TV, and thus stimulate popular demand for environment protection and sustainable development. (b) Likewise target opinion leaders in media (press and	1. Reports of the participating TV channels; 2. Report of the media visits to high profile projects 3. Monitoring of press and electronic news coverage post the high profile site visits. 4. Project Progress reports; 5. Opinion polls before, during and after the project implementation.	The respective TV channels are interested and willing to participate in the project.

	understandably a limited reach. TV is the only medium reaching wider public but it has had limited interest or persuasion to advocate the issues of environment.	electronic) through 12 site visits to high profile projects.		
4. Extent to which Political Commitment and Support for protecting environment and mainstreaming sustainability in economic development is enhanced	Members of the parliament and provincial assembles include several environmentally enlightened individuals. Not all are however as aware and convinced of the imperative of environmental integration in economic development. This represents the major missing pillar to effectuate the country's otherwise progressive environmental policies and legislation.	(a) Expose the existing standing committees on environment in different houses of public representatives, create new ones where needed though a total of 24 briefing sessions. (b) Engage a broader spectrum of politicians both at federal and provincial level by organizing site visits to high profile development projects for discussions on their economic and environmental promises and implication. About 9 such visits are envisaged. (c) Increase the number of	1. Records of the parliament and provincial assemblies 2. Notes of the specific briefing section 3. Notes from site visits 4. Records of P&D Division and P&D departments in Punjab and KPK related to projects positively influenced by environmental considerations; 4. Project Progress reports	The achievement of these indicators is not only contingent of the political leadership supporting integration of environment in development projects. Their interest and engagement in the project supported discussion and field visits is assumed and would be necessary.

		development projects whose design is positively shaped by environmental considerations.		
Output 3.1. Exposure and Training of Civil Service Output 3.2. Enhanced Access of Planning Functions to Environmental Expertise Output 3.3: An Engaged Polity Output 3:4: Supportive Public Opinion Output 3.5: Media Support				

Annex 2: EMIS Conceptual Framework



Annex 3: List of Stakeholders Met and Consulted

S.No.	Name and Affiliation	Institution
1	Mr.Amanullah Khan, Assistant Representative	UNDP Pakistan
2	Mr.SaleemUllah Khan, Program Officer	UNDP Pakistan
3	Dr. Mohammad Khurshid Khan Swati, Director General	Pak EPA
4	Mr. Abdul Hamid Khan Marwat, Chief Environment	P&D Division
5	Dr.Qamar-uz-ZamanChowdery, Special Envoy UN- World Metrological Orgnization; Former Director General, Department of Meterology; Government of Pakistan;	Resource Person
6	Mr. GulNajamJamy	World Bank, Pakistan
7	Dr.Faizul Bari,	FAO, Pakistan
8	Mr. Fawad Hayat, GEF Senior Program Officer	UNDP/ Ministry of Climate Change,
9	Mr. Irfan Tariq, Director General Environment	Ministry of Climate Change
10	Mr.AsifSahibzada,	Ministry of Climate Change
11	S. MahmoodNasir, IGF	Ministry of Climate Change
12	Mr.ManafQaimkhani, DIGF,	Ministry of Climate Change
13	Dr.ShehzadJehangir, DIGF	Ministry of Climate Change
14	Mr. Inamullah Khan, Forestry Specialist;	IUCN Pakistan, Islamabad
15	Ms. GhazalaRaza, Consultant	Resource Person
16	Dr.Ehsan Mir CEO,	TVO, Islamabad
17	Dr. Hassan AkhtarRizvi, Chief Information Officer	Lead, Pakistan
18	Dr.Javed, former DG Environment, GoP	Resource Person
19	Dr. Mohammad Aslam, Food Security Commissioner	Food Security Division, GoP
20	Mr.AsifBajhwa, Chief Statistician.	Bureau of Statistics, GoP
21	Mr. Ahmad Kamal, Member DPR	NDMA, GoP
22	Mr.Ehtisham Khalid Khan, Senior Project Manager	NDMA, GoP
23	Mr.Gilani, Joint Secretary, International Cooperation	Ministry of Climate Change
24	Dr.Ejaz Ahmad, Senior Director	WWF Pakistan
25	Mr.Hameed Sheikh, Director General	EPA, Punjab
26	Mr.AslamJaved, Chief Transport, Ex-Chief Environment	P&D Punjab
27	Mr.Nusrat Gill, Assistant Chief, environment	P&D Punjab
28	Hassan Ali, Assistant Manager	WWF Pakistan
29	Mohammad SaleemAkhtar	Punjab Wildlife Department
30	Dr.RehmatullahJilanai, Director	SUPARCO
31	Dr. Said Rehman	SUPARCO

S.No.	**Name and Affiliation**	**Institution**
32	Dr.Saad Malik	SUPARCO
33	Dr.ArjumandZaidi	SUPARCO
34	Mr. M. A Cheema, Country Representative	IUCN Pakistan, Karachi
35	Dr. Abdul Qadir, Assistant Professor	College of Earth Sciences, Lahore
36	Mr. UsmanQazi, Resource Person	Baluchistan
37	Mr.Zabardast Khan, Resource Person	Baluchistan
38	Ms.Durre-e-Shahwar	Lecturer, Punjab University
39	Ms.HajraAtiq	WWF Pakistan
40	Mr.Najmul Huda Khan, Manger, Training	WWF Pakistan
41	Mr. Mohammad Imran, Assistant Director	Punjab Fisheries Department
42	Mr.JamshedIqbalChowdery, Manager, Research &Cons.	WWF Pakistan
43	Mr.Zulfiqar Ahmad, Assistant Chief, Education/Forest	P&D Punjab
44	Engr. Razia Begum, Principle Engineer	PCSIR, Karachi
45	Mr.Shahid Khan, CEO	Indus Earth, Karachi
46	SamsulHaqMemon, Former Secretary Environment	Resource Person, Karachi
47	Mr. Ashraf Sahdo, Director	SCDA, Karachi
48	Ms.Mehr M. Nosherwani, Technical Advisor,	TCCR, Karachi
49	Mr.FayyazRasool, Manager	KPT, Karachi
50	Mr.AltafHussain, Manager Conservation	WWF Pakistan, Karachi
51	Ms.SeemaKhurram, Executive Director	Sustainable Initiatives, Karachi
52	Mr. Abdul Jabbar, Kazi, Deputy Secretary,	Sindh Wildlife Department,
53	Mr.Waqarhussain, Director	Sindh EPA
54	Ms.Fouzia Malik, Program Coordinator	IUCN Pakistan, Karachi
55	Mr.GhulamQadir Shah,	IUCN Pakistan, Karachi
56	Dr.ShahidAmjad, Head of Department, Envi& Energy	LOBM, Karachi
57	Mr.SaleemJalbani, Assistant Chief, Environment,	P&D Punjab
58	Mr.GhulamSarwarMemon, Program Officer, Environment	P&D Punjab
59	Mr. A. TahirHussain, Conservator of Forests,	Sindh Forest Department
60	Mr.JavedMehar, Conservator of Forests	Sindh Wildlife Department,
61	Mr.Hashim Ali Khan, Chief Conservator of Forests	Forest Department, KPK
62	Mr.Sardar Mohammad Sultan, Conservator of Forests	Forest Department, KPK
63	Mr.ShabirHussain, Conservator of Forests,	Forest Department, KPK
64	Mr. Mohammad Arif, DFO	Forest Department, KPK

S.No.	**Name and Affiliation**	**Institution**
65	Mr.ZakirHussain Shah	Forest Department, KPK
66	Iftikhar Ahmad,	Forest Department, KPK
67	Dr.ZaffarMahmood, Professor	Agriculture University, Peshawar
68	Dr. M. Bashir Khan, DG	EPA, KPK
69	Mr.Zahoor A. Swati, Vice Chancellor	Agriculture University, Peshawar
70	Mr.Siddique Khan, Conservator of Forests	Forest Department, KPK
71	Mr. Malik Javed Khan, Conservator of Forests	Forest Department, KPK
72	Mr. Ali Gohar Khan, Conservator of Forests	Forest Department, KPK
73	Mr.AbdurRehaman Khan,	SRCP, Peshawar
74	Ms. Mariam Bibi, CEO	KhwendoKor, Peshawar
75	Mr.Mushtaq Ahmad Jan	CDPM, University of Peshawar.

Annex 4: Validation Workshop Agenda

Validation Workshop

Generating Global Environmental Benefits from Improved Decision Making Systems and Local Planning in Pakistan

27 June 2014

Time (Hours)	Details of Activity	Facilitator
0930-1000	Arrival of Participants	One UN Office Islamabad
1000-1015	Welcome	Amanullah Khan
1015-1030	Introduction of Participants	SaleemUllah Khan
0130-1045	Objectives of the Workshop	SaleemUllah Khan
1045-1130	Findings and Recommendations of the Planning Mission	Mohammad Rafiq, International Consultant
1130-1230	Questions, Clarification and Discussions	Mohammad Rafiq, International Consultant
1230-1245	Conclusions	Jawed Ali Khan, former Director General Environment, Government of Pakistan.
1245-1300	Next Steps	Mohammad Rafiq, International Consultant

Annex 5: Key Stakeholder Groups and Roles

Stakeholders	Roles and Responsibilities
Ministry of Climate Change , Government of Pakistan	Ministry of Climate Change is essentially the custodian of environment mandate at the federal level, and is home to focal points for important environment related conventions including, among others, CBD, UNFCC and CDD. It will carry the overall responsibility for overseeing successful execution of the project and coordinating its implementation across the participating sectors, provinces and entities. Apart from overall coordination, through the Project Coordinator, it will also be responsible for delivering certain specific outputs related to multilateral environmental agreements, and mobilizing the public opinion for environment-development integration. Baring such specific interventions, the project is designed in a way to avoid burdening the Ministry of Climate Change with the day to day implementation that is devolved and delegated to the respective implementing entities.
Planning and Development Division, Government of Pakistan	Planning and Development Division, notably its Environment Section, is the principal entity tasked with environmental review of economic development projects and by extension to support integration of environment and development. Thus, the Planning and Development Division will have the lead responsibility for implementing the project component related to integrating environment and development as well as for the exposure and training of officers of civil service responsible to conceive or review public sector development projects, enhancing access to the planning functions to relevant environmental information and expertise, and for engaging polity to enhance and sustain their support for sustainably integrating environment and development.. While, it will carry the direct responsibility for coordinating and implementing these interventions at the federal level, it will also coordinate, enable and help similar interventions envisaged at the provincial level.
Pakistan Bureau of Statistics (PBS)	BPS has the mandate for national statistics in the country. It also maintains and publishes Compendium of Environmental Statistics in Pakistan. They will have the responsibility for reviewing, strengthening and reforming, as necessary, their existing data collection systems to make them more inclusive of the needs of EMIS, and produce the compendium of environmental statistics regularly. This will be done in coordination with the Pak EPA as the responsible agency for the overall EMIS for Pakistan. It is understood, PBS will implement this component with the help and support of provincial bureaus of statistics and departments and agencies generating primary data. They will do so in the course of normal business.

Pakistan Environment Protection Agency (Pak EPA)	Apart from directly monitoring and reporting on environment in territories under administration of the federal government, Pak EPA is the custodian of NEQS and national legislation on environment. It has also inherited the equipment and outputs from the recently concluded NEMIS project and has been resourced and mandated by the Government of Pakistan for the follow up to NEMIS. Pak EPA will therefore have a very important and central role in the project. More specifically, it will have the full and undiluted responsibility for the EMIS component of the project. It doesn't have to run the EMIS itself. The actual operation of the system can be outsourced to a competent organization with relevant interests and capacities but it will be the Pak EPA's role to lead, supervise and ensure the existence and operation of a robust EMIS system in perpetuity. Likewise, it will have the lead responsibility for the data component, although parts of it would be entrusted to the leadership of Pakistan Bureau of Statistics and other relevant organizations. It will also participate in the research and analysis of environmental information for informing public policy, plans and legislation.
Provincial Planning and Development (P&D) Departments	The P&D Departments (Punjab and KPK) will play an important role akin to the role of the P&D Division at the federal level. In view of the devolution of 'Environment' to the provinces following the 18th Amendment to the Constitution of Pakistan, their role in successfully integrating Environment and Development. These departments mainly carry this role through their Environment Section but other sections being custodian of the economic development projects play an equally important role. The P&D departments will thus play the role, as described for the P&D Division above, at the provincial level.
Provincial Environment Protection Agencies (EPAs)	The EPAs in provinces serve as counterparts to the Pak EPA at the provincial level. They are the custodians of the provincial environmental legislation, and are mandated for environmental monitoring and overseeing the processes of environmental impact assessment of development projects. They will have an increasingly important role post the 18th Amendment. For this project, besides overall coordination of the their respective components, they will be also coordinating the development and pilot testing of data assurance quality protocols with support from the select line departments. They will have the responsibility to produce the provincial state of environment reports and benchmarking these with the Pakistan Environment Report to ensure consistency and avoid duplication of efforts. They will also fill or enable filling in residual data gaps as the bench marking of NEMIS-identified requirements with normal data collection through Pakistan Bureau of Statistics (to be coordinated by Pak EPA), might warrant. Moreover, they will work with respective universities to harness their research capacity and internship programs for filling in data gapes left in normal data collection through the bureau of statistics.

Other Key Ministries and Divisions of Government of Pakistan	This project will for the first time also focus on key ministries and divisions other than planning and development and climate change. These ministries are critical potential partners in that it is here that many of the public sector development projects, plans and policies with lasting impact on environment are conceived, developed or initially reviewed. Thus, they will be one of the important beneficiaries of environmental awareness and capacity building components of the project. The will hold and host specific workshops and seminars for the purpose. Likewise, with support from project, they will also undertake policy analysis and research on key issues they face and would be the subject of policies, plans or legislation in near and medium term.
Line Departments in Provincial Governments	Likewise, at the provincial level, the project will enlist the participation of key line departments. These departments, like federal divisions, are often the ones initiating proposals for plans, policies and legislation that are environmental in focus (e.g forest and wildlife departments) or have major impacts on environment (e.g. agriculture department). Therefore, at the provincial level, they will be the focus of relevant environmental awareness and capacity building efforts, and will undertake policy analysis and research on key development issues and opportunities they face or envisage in near and medium term, and that will have environmental implications. In addition, these are the departments where most of the primary environment data is generated that is then aggregated at provincial and country level. Thus, they will also be key participants in the programs for improving the gathering, reporting, quality and reliable of data.
National and Provincial Training Institutions	Institutions like Pakistan Administrative Staff College, National Institute(s) of Public Administration and other similar entities that are mandated to train civil servants before or during their employment have an important role that has been rarely addressed in the past efforts of building capacity for environment. This project Is not designed to alter their course as such but they are envisaged as key venues to engage and support the exposure and training of officers of the civil service in the essentials of environment to enable them ask and address the right questions when tasked with conceiving, developing or reviewing economic development plans and policies in their respective economic sectors. They will serve as the venues of guest lectures and workshop for their enrolled trainees. They may also resource with their teaching staff some of the workshops that will be organized at the respective ministries and departments.
Environmental NGOs and thank-tanks	Environmental NGOs and think tanks in Pakistan have played a crucial role in creating and sustaining the environmental movement in the country. The governments have valued and benefited from their commitments, expertise and interests. These NGOs, including international NGOs such as IUCN, WWF, LEAD and others, as well as many National NGOs such as Sustainable Development Policy Institute, Strengthening Participatory Organizations (SPO) and others will make major contributions to the project. This will come in several ways, notably: They will actively participate in, and bring their own data basis and portals to make part of, the overall EMIS for the country. In the

	market based approach conceived under the project as a measure of long term sustainability, while government divisions and departments will serve as the market for environment related research and analysis, these thank tanks and NGOs will be the potential suppliers of information and analysis alongside other academia and research entities. Finally, they will provide expertise and materials for resourcing the environmental awareness and capacity building interventions contemplated under the project.
Universities	Universities are a major venue and source of research and information. However, their work ought to be better linked to the public arena of making policies and plans. They have a particularly important role to fill data gapes that are left behind through the normal course of government data collection and reporting. During the public consultation, the representatives of the universities (e.g Vice Chancellor, Agriculture University, Peshawar) made specific offers such as of using their graduate students research and internship programs to support a robust EMIS in the country. The project will enable select interested universities to play this role with support and coordination from the federal and provincial environment protection agencies as well as relevant ministries, divisions and departments of the government. Universities would also resource, along with others, the network of environmental experts that Environment Sections at the federal and provincial P&Ds are envisaged to create and sustain over the long term.

Annex-6: Outcome Budget (GEF Contribution and Co-financing in USD)

Project Financing										
	Total Budget	GEF	Co-financing Total	Co-financing Break-up						
				UNDP	GOP (Federal)		Provincial Government KPK		Provincial Government Punjab	
					Para-llel	In-kind	Para-llel	In-kind	Para-llel	In-kind
Outcome 1	204500	80500	124000	0	59000	0	32500	0	32500	0
Outcome 2	613000	265000	348000	0	290000	0	29000	0	29000	0
Outcome 3	755850	559500	196350	0	139850	32000	12250	0	12250	0
Project Mngt. Cost	362200	90500	271700	217700	0	18000	0	18000	0	18000
Total	1935550	995500	940050	217700	488850	50000	73750	18000	73750	18000

Annex 7: Output level budget details (USD)

Cost Estimates for Various Project Outputs												
Outcome		Outputs		Year 1	Year 2	Year 3	Total Budget	GEF share	Co-financing Total	GOP (Federal)	Gov. KPK	Gov. Punjab
1	Regular availability of consistent and reliable environmental data;	1.1	A Unified Data Collection, Storage and Access System	10,000	0	0	10,000	10,000	0	0	0	0
		1.2	An Established List of Priorities for Data Gathering and Reporting	8,000	0	0	8,000	4,000	4,000	4,000	0	0
		1.3	A Report of Bench Marking of Environmental Statistics of Pakistan with the NEMIS Identified Environmental Data	7,000	8,000	0	15,000	15,000	0	0	0	0

Cost Estimates for Various Project Outputs												
Outcome		**Outputs**		**Year 1**	**Year 2**	**Year 3**	**Total Budget**	**GEF share**	**Co-financing Total**	**GOP (Federal)**	**Gov. KPK**	**Gov. Punjab**
			Requirement									
		1.4	An Agreement between the Ministry of Climate Change and Bureau of Statistics	1,500	0	0	1,500	500	1,000	1,000	0	0
		1.5	Reformed Data Collection Tools and Approaches	15,000	15,000	0	30,000	10,000	20,000	5,000	7,500	7,500
		1.6	Environment Statistics of Pakistan	0	15,000	15,000	30,000	8,000	22,000	22,000	0	0
		1.7	Mandate for Collecting Residual Data	0	10,000	0	10,000	3,000	7,000	7,000	0	0
		1.8	Protocols of Quality Assurance of Environment Data	20,000	40,000	40,000	100,000	30,000	70,000	20,000	25,000	25,000
2	A coordinated and robust environmental information management system,	2.1	An Effectively Operating National Environmental Information Management System	80,000	80,000	90,000	250,000	40,000	210,000	210,000	0	0
		2.2	Policy Research and Analysis	36,000	36,000	36,000	108,000	80,000	28,000	10,000	9,000	9,000

Cost Estimates for Various Project Outputs												
Outcome		**Outputs**		**Year 1**	**Year 2**	**Year 3**	**Total Budget**	**GEF share**	**Co-financing Total**	**GOP (Federal)**	**Gov. KPK**	**Gov. Punjab**
		2.3	Pakistan's State of Environment Report	20,000	30,000	30,000	80,000	20,000	60,000	60,000	0	0
		2.4	Two Provincial State of Environment Reports	40,000	40,000	10,000	90,000	50,000	40,000	0	20,000	20,000
		2.5	Bench Marking Pakistan State of Environment Report with Provincial Environment Reports	0	10,000	0	10,000	5,000	5,000	5,000	0	0
		2.6	Country Reports under Multilateral Agreements	15,000	15,000	15,000	45,000	40,000	5,000	5,000	0	0
		2.7	Harnessing Research Capacity and Opportunities in Universities	10,000	10,000	10,000	30,000	30,000	0	0	0	0
3	Enhanced commitment and capacity for sustainable development planning and legislation.	3.1	Exposure and Training of Civil Service	140,542	140,654	140,654	421,850	255,500	166,350	161,850	2,250	2,250
		3.2	Enhanced Access of Planning Functions to Environmental Expertise	60,000	60,000	60,000	180,000	150,000	30,000	10,000	10,000	10,000
		3.3	An Engaged Polity	10,000	30,000	30,000	70,000	70,000	0	0	0	0

Cost Estimates for Various Project Outputs												
Outcome		**Outputs**		**Year 1**	**Year 2**	**Year 3**	**Total Budget**	**GEF share**	**Co-financing Total**	**GOP (Federal)**	**Gov. KPK**	**Gov. Punjab**
		3.4	Supportive Public Opinion	0	30,000	30,000	60,000	60,000	0	0	0	0
		3.5	Media Support	0	12,000	12,000	24,000	24,000	0	0	0	0
	Total			**473,042**	**581,654**	**518,654**	**1,573,350**	**905,000**	**668,350**	**520,850**	**73,750**	**73,750**

Annex- 8: Provisional Work Plan

		Quarters											
Activity	**Description**	1	2	3	4	5	6	7	8	9	10	11	12
Outcome 1	**Regular availability of consistent and reliable environmental data**												
Output 1.1	A Unified Data Collection, Storage and Access System												
Output 1.2	An Established List of Priorities for Data Gathering and Reporting												
Output 1.3	A Report of Bench Marking of Environmental Statistics of Pakistan with the NEMIS Identified Environmental Data Requirement												
Output 1.4	An Agreement between the Ministry of Climate Change and Bureau of Statistics												
Output 1.5	Reformed Data Collection Tools and Approaches												
Output 1.6	Environment Statistics of Pakistan												
Output 1.7	Mandate for Collecting Residual Data												
Output 1.8	Protocols of Quality Assurance of Environment Data												
Outcome 2	**A coordinated and robust environmental information management system**												
Output 2.1	An Effectively Operating National Environmental Information Management System												
Output 2.2	Policy Research and Analysis												
Output 2.3	Pakistan's State of Environment Report												
Output 2.4	Two Provincial State of Environment Reports												
Output 2.5	Bench Marking Pakistan State of Environment Report with Provincial Environment Reports												
Output 2.6	Country Reports under Multilateral Agreements												
Output 2.7	Harnessing Research Capacity and Opportunities in Universities												
Outcome 3	**Enhanced commitment and capacity for sustainable development planning & legislation**												
Output 3.1	Exposure and Training of Civil Service												
Output 3.2	Enhanced Access of Planning Functions to Environmental Expertise												
Output 3.3	An Engaged Polity												
Output 3.4	Supportive Public Opinion												
Output 3.5	Media Support												
Project Management													
A	Project start-up: Organize project team and review work plan, Inception Workshop												
B	Local Recruitment												
C	International Evaluation Consultant: Terminal Evaluation												
D	Office facilities and communications												
E	Project Executive Committee Meetings												

Annex-9: Details of Project Management Budget

Summary of Project Management Cost (USD)							
	Amount Year 1	Amount Year 2	Amount Year 3	GEF	UNDP	GoP Share	Total Budget (USD)
Salaries and Allowances	**51,600**	**54,960**	**58,640**	41,000	70200	54,000	**165,200**
Other Items	**70,296**	**74,296**	**68,296**	65,388	147,500	0	**212,888**
G.Total	**121,896**	**129,256**	**126,936**	**106,388**	**217700**	**54,000**	**378,088**

Project Management Cost/ Operational Budget (USD)							
Salaries/Allowances							
		Monthly rates	Amount Year 1	Amount Year 2	Amount Year 3	Total Budget	Donor
1	Project Coordinator	2,000	24,000	26,400	29,040	79,440	GEF/UNDP
2	Assistant Project Officer	600	7,200	7,920	8,700	23,820	GEF/UNDP
4	Support Staff	200	2,400	2,640	2,900	7,940	GEF/UNDP
		S.Total	**33,600**	**36,960**	**40,640**	**111,200**	GEF/UNDP
6	National Project Director	500	6,000	6,000	6,000	18,000	GoP-Federal Government
7	Provincial counter Part one each for Punjab and KPK (2 positions)	500	12,000	12,000	12,000	36,000	GoP - Provincial Governments
		S. Total	**18,000**	**18,000**	**18,000**	**54,000**	**GoP**
		Total Salaries	**51,600**	**54,960**	**58,640**	**165,200**	
Other items							
	Monitoring & Audit +(International Consultant)		7,000	18,000	18,000	43,000	UNDP
	Consumable		10,000	10,000	10,000	30,000	UNDP/GEF
	Equipment and Furniture		15,000	5,000	0	20,000	UNDP/GEF
	Travel		15,000	13,000	12,000	40,000	UNDP/GEF
	POL(fuel cost)		5,000	5,000	5,000	15,000	UNDP/GEF
	Misc		10,000	10,000	10,000	30,000	UNDP/GEF
	UNDP DPCs		8,296	8,296	8,296	24,888	GEF
		S.Total	**70,296**	**69,296**	**63,296**	**202,888**	

Annex 10: Terms of References

Background

The United Nations Development Programme (UNDP), acting as an implementing agency of the Global Environment Facility (GEF), is providing assistance to Ministry of Climate Change, Government of in the preparation of the GEF Medium Size Project (MSP) "Generating Global Environmental Benefits from Improved Decision Making in Pakistan". The project's objective is 'to remove the barriers to environmental information management and mainstreaming global environment concerns into economic decision making. The objective is two-fold in its focus, one related to environmental information, and the other to employing this information for improved economic decision making.. Accordingly, the project has three interrelatedoutcomes: (1) Regular availability of consistent and reliable environmental data; (2) A coordinated and robust environmental information management system, and, (3) Enhanced commitment and capacity for sustainable development planning and legislation. More details about the project can be found in the main project document with a summary in the beginning.

The project will be implemented in a devolved manner through the existing structures of the government and following a market based approach to the generation, supply and access of information. Nonetheless, the project provides for some additional personnel mainly to coordinate support, and technically assist its implementation.

This document outlines the broad parameters of Terms of Reference for the project's key personnel.

1. National Project Director (NPD)

The Ministry of Climate Change, Government of Pakistan, in consultation with UNDP, will assign one of its senior officers as the National Project Director (NPD). The NPD supports the project and acts as a focal point on the part of the Government. This responsibility entails ensuring effective communication between partners and oversight of project performance for results. S/her represents the Government's *ownership* and *authority* over the project, *responsibility* for achieving project objectives and the *accountability* to the Government and UNDP for the use of the project resources. s/he will be assisted by an overall Project Coordinator (PSC).

The NPD will have the following key duties and responsibilities:

a. Assume overall responsibility for the successful execution and implementation of the project, accountability to the Government and UNDP for the proper and effective use of project resources)

b. Serve as the principle focal point for UNDP/GEF in relation to the project, and actively coordinate and communicate with UNDP and the project implementation partners;
c. Ensure that all Government inputs committed to the project are made available;
d. Supervise the work of the Project Coordinator ensuring that s/he is enabled and empowered to effectively support the component coordinators and the Project Executive Committee (PEC);
e. Select and arrange, in close collaboration with UNDP, for the appointment of the Project Coordinator soon after the project's commencement.
f. Chair the Project Executive Committee, and that role, convene and conduct its meetings,
g. Ensure that PEC operates effectively for timely approval of project work plans and budgets, and for resolving any issues that might emerge during the course of implementation;
h. Timely inform UNDP of any major issues affecting or delaying project implementation or any of its components, and endeavor to address them together.
i. Supervise the preparation of project work plans, updating, clearance and approval, in consultation with UNDP and other stakeholders and ensure the timely request of inputs according to the project work plans;
j. Ensure, together with UNDP, that funds allocated to different components are made available to the respective lead agencies in good time, and that the flow funds doesn't hinder or delay implementation.
k. Ensure that the devolved implementation of the project, in general, works effectively to deliver results.
l. Represent the Government institution (national counterpart) at the tripartite review project meetings, UNDP Outcome Board, and other stakeholder meetings.

Remuneration and entitlements:

The National Project Director may not receive monetary compensation from project funds for the discharge of his/her functions.

2. <u>Overall Project Coordinator (PC)</u>

An Overall Project Coordinator (PC) will be recruited for 36 months essentially as support to the NPD and the Executive Committee and will not have any management authority of its own except as explicitly specified in these TOR. In the spirit of the devolved implementation, his main role will be to enable and support component coordinator in implementing their respective components effectively and accountably. He will also be the UNDP principle liaison for the project on a day to day basis. This will be a full time position with the following key duties and responsibilities:

(a) Assist NPD in preparing the Executive Committee Meetings and following up on its decisions. The PC will.

(b) Gather the component work plans and budgets and consolidate them into the project's overall work plans and budget for approval of the PEC.
(c) Carry out the monitoring and evaluation procedures per UNDP agreed policies and procedures, including, among others:

(i) Oversee the day-to-day monitoring of project implementation. Keep a watchful eye and closely follow up progress in implementing the different components, and timely alert NPD to any major bottlenecks or issues affecting implementation;
(ii) Ensure progress reports of implementations by the component leads are adequate and received in time; consolidate these reports into the project overall progress and management reports, e.g., APR/PIR and project initiation report for submission to UNDP and PEC as required.
(iii) In consultation with stakeholders, recommend modifications to project management to maintain project's cost-effectiveness, timeliness, and quality project deliverables (adaptive collaborative management) to be approved by the Project Advisory Board
(iv) Facilitate all meetings of the PEC
(v) Maintain effective communication with project partners and stakeholders to dissemination project results, as well as to facilitate input from stakeholder representatives as project partners
(vi) Support the independent terminal evaluation
(vii) Ensure full compliance with the UNDP and GEF branding policy

(d) Manage the project's overall account keeping track of allocations according to approved work plans and budgets;
(e) Prepare summary of expenditure against the approved budget allocation for use and consideration of the NPD, PEC and UNDP as required;
(f) Supervise the work of the Assistant Project Officer assigned to him/her; and,
(g) Undertake any other tasks in relation to the PC role as mutually agreed with the NPD.

The Project Coordinator will have a minimum of 7 years of management experience in large donor funded projects. Experience in GEF/UNDP projects will be an advantage. The person shall have exceptionally good interpersonal and communications skills, and a solid background in projects planning, monitoring and evaluation.

3. Assistant Project Officer

The Assistant Project Officer will be recruited for 36 months to support the Project Coordinator in the carrying out of his/her mandate. The will, in particular, perform, the following tasks:

a. Organizational and logistical issues related to project execution per UNDP guidelines and procedures

b. Record keeping of project documents, including financial in accordance with audit requirements
c. Ensure all logistical arrangements are carried out smoothly
d. Assist Project Coordinator in preparation and update of project work plans in collaboration with the UNDP Country Office
e. Facilitate timely preparation and submission of financial reports and settlement of advances, including progress reports and other substantial reports
f. Liaise with the Project Coordinator and UNDP Programme Officer on a regular basis
g. Identify and timely resolve any logistical and organizational issues in project implementation, if necessary with guidance and support of the Project Coordinator.

The Assistant Project Officer will have at least five (5) years' experience in supporting the implementation of UNDP implemented projects, with preference in environment and natural resource management projects.

4. Component Coordinator(s)

Component Coordinators have a very important role in the project implementation. Overall there will be 7 component coordinators for each of the components of Ministry of Climate Change, P&D Division (Environment Section), Pakistan Bureau of Statistics, P&D Department Punjab, P&D Department KPK, Pak EPA, Punjab EPA and KPK EPA. Depending on the role and volume of work in each component, Components Coordinator may be full time positions or part time. Likewise, they may be specifically recruited for the project or one of the existing officers in the respective organization may be assigned the role of the component coordinator. A summary of how these positions are resourced is given below:

Components Coordinators and their Funding Source

Component (Coordinator)	Sourcing of Funds	Comments
Ministry of Climate Change (CCD)	No additional funding or separate person required	The overall project coordinator already funded by GEF based in the CCD will also serve as the component coordinator for the outputs in the direct responsibility of the CCD
Pak EPA	No additional funding or separate person required	The EMIS Coordinator/Data Systems Expert based in Pak EPA, already funded by GEF, will also serve as the component coordinator for the outputs in the responsibility of the Pak EPA
Pakistan Bureau of Statistics (PBS)	GoP	In Kindfinancing

Planning and Development Division (Environment Section)	GoP	In kind Financing
P&D Department, Punjab	Government of Punjab	Parallel Financing
P&D Department, KPK	Government of KPK	Parallel Financing
EPA Punjab	Government of Punjab	Parallel Financing
EPA KPK	Government of KPK	Parallel financing

Regardless of their sources of funding, the Component Coordinators will have the following responsibilities and tasks:

(a) Mange the respective component as sub-projects independently but in close coordination with the other relevant components and overall project coordinator, reporting the progress to him/her regularly in the spirit of the devolved implementation envisaged in this project.
(b) Constitute and convene a component Implementation Committee of the relevant key stakeholders to help plan and implement the different outputs effectively;
(c) Develop Terms of Reference for the Implementation Committee and have them approved from the Project Executive Committee through the Project Coordinator;
(d) Participate in the PEC meetings representing the respective component;
(e) Prepare the component overall and annual work plans and budgets and provide these to the overall Project Coordinator to obtain the PEC approval;
(f) Develop and provide physical and financial progress reports as required by the overall project coordinator commensurate with the needs and requirements of the donor and PEC; and to this end, maintain full and trans[aren't records of the components budget allocations and expenditures;
(g) Take full responsibility for an accountable and efficient implementation of the outputs and activities of the respective components liaising with respective implementation partner organization, and communicating with them regularly, and overseeing and monitoring the delivery of their outputs and activities as required.
(h) The Component Coordinators for the Provincial P&D Departments will also serve as the overall provincial coordinators if and when so required.

The component Coordinators shall be midlevel professionals with minimum of 7 years of project planning and implementation experience preferably in the environment-related economic sectors or in the environment sector as such.

5. EMIS Coordinator, Pak EPA

The future success and sustainability of an effectively operating environmental management information system is contingent on the performance of this position. The EMIS Coordinator shall have the following key responsibilities:

(a) Review and establish state of the art in terms of further progress if any, on making the EMIS operational, post the conclusion of the NEMIS project;
(b) Develop a work plan for the EMIS component and ensure its effective implementation over the project period;
(c) Convene, coordinate, and keep engaged the EMIS stakeholders group representing the organizations participating in EMIS either through contribution of their data basis and information systems and portals or through generation of primary environmental data.
(d) Foremost, ensure that the participating organizations have a distinct sense of value added from their participation in EMIS, and remain enthusiastically engaged and supportive.
(e) Make the EMIS fully operational within the first six months of the commencement of the project, drawing on whatever was done under the NEMIS project, even if it may not be perfect; improve and expand the EMIS in the subsequent period;
(f) Take full responsibility for the EMIS being technically of high quality, robust, and serving the purpose it is meant to serve;
(g) Focus on the financial and operational post-project sustainability of EMIS, exploring the different financing options including mobilization of the market and user fee among others, and ensure the long term sustainability measures have been instituted from the onset than left to the last year or months of the project.
(h) Serve as the Component Coordinator for the Pak EPA component in the project; and that capacity perform the tasks listed in the suggested TOR for the component Coordinators
(i) Develop TOR and recruit the IT expert envisaged to support the EMIS Coordinator on technical aspects of EMIS; guide and supervise the work of the IT expert.

Given the importance of the position of EMIS, it will be resources by recruiting, internally or from the open market, a highly competent, enthusiastic, inspiring, energetic, and result oriented professional. The position will be fairly remunerated to attract the required talent and skill. The incumbent shall exceptionally combine excellent informatics and IT credentials with astute and skillful management of networks of diverse stakeholders.

This position will work for the full project period and will hopefully be absorbed by Pakistan EPA to continue EMIS thereafter.

6. International Evaluation Consultant

The international evaluation consultant will be an independent expert that is contracted to assess the extent to which the project has met project objectives as stated in the project document and produced cost-effective deliverables. The consultant will also rate capacities developed under the project using the Capacity Development Scorecard.

The Terms of Reference for the International Evaluation Consultant will follow the UNDP/GEF policies and procedures, and together with the final agenda will be agreed upon by the UNDP/GEF RCU, UNDP Country Office and the Project Management Team. The final report will be cleared and accepted by UNDP (Country Office and Regional Coordination Unit) before being made public.

7. Other Consultants

The project envisages several other short term consultants to support the delivery of the different components. The Tor for these consultants will be developed by the respective Component Coordinators when in place in keeping with their needs as finally established during the inception planning/workshop.

Capacity Development Scorecard

Project: Generating Global Environmental Benefits from Improved Decision Making in Pakistan

Using a capacity development scorecard aims to provide a framework for the use of capacity development indicators to establish baselines and monitor progress made.

This scorecard is arranged to asses following capacities at individuals and organizational levels:
1. Capacities for engagement: Capacities of relevant individuals and organizations (Community and political leaders, private and public sector managers and experts) to engage proactively and constructively with one another to generate global environmental benefits through local actions.

2. Capacities to generate, access, and use information and knowledge: Capacities of individuals and organizations to research, acquire, communicate, educate, and otherwise make use of pertinent information, so as to be able to diagnose and understand global environmental problems and formulate potential solutions.

3. Capacities for policy and legislation development: Capacities of individuals and organizations to use informed decision-making processes for global environmental management in order to plan and develop effective environmental policy and legislation, related strategies and plans.

To establish the baseline capacity, stakeholders who represent key institutionswill be asked to score their understanding of the existing individual and institutional capacities, where they would like to move the capacity to, in the project's timeframe and which project outcome is being targeted,.

The scorecard should, at a minimum, be under- taken at the beginning of a project (inception workshop), its mid-point, and at its end. If needed, this tool could also be used once a year. The scorecard system allows for monitoring the capacity development process. It is important to note that this tool is a rapid self-assessment tool that is intended to provide a snapshot of the perceptions of the stakeholders, which can be useful in stimulating dialogue regarding the capacities they wish to strengthen.

Instructions for Respondents

Please follow the instructions below:

1) Write down project name, project cycle phase and date.
2) Carefully asses each indicator under capacity head.
3) Assess the existing level of capacity of yourself and/or your organization using the score ratings and write the number for the level of that capacity in to the score column.

4) Provide your expected level of capacity at the end of project period (in number as per score ratings).
5) Provide the project outcome number, which you think is most suitable outcome for that indicator.
6) Provide any additional comments if required.

Capacity Development Score Card

Project Name:					
Project Cycle Phase:					
Date:					
Capacity 1: Capacities for engagement					
Indicator	Score ratings	Baseline Score	Expected Score at project closure	Contribution to which outcome	Comments
1.1: Degree of legitimacy/ mandate of lead environmental organizations	0: Organizational responsibilities for environ- mental management are not clearly defined 1: Organizational responsibilities for environmental management are identified 2: Authority and legitimacy of all lead organizations responsible for environmental management are partially recognized by stakeholders 3: Authority and legitimacy of all lead organizations responsible for environmental management recognized by stakeholders				
1.2: Existence of cooperation among stakeholder groups	0: Identification of stakeholders and their participation/involvement in management decision-making is poor				

	1: Stakeholders are identified, but their participation in management decision- making is limited 2: Stakeholders are identified and regular consultative mechanisms are established 3: Stakeholders are identified, and they actively contribute to established participative management decision-making processes				
1.3: Public Opinion is better informed and more supportive of environmental protection and sustainability	0: No Public awareness exists regarding environment protection and sustainability 1: Public is partially aware; majority of the people are still indifferent to the issues of environment; 2. Majority of the people are aware of the environmental issues but public opinion is not strong enough to persuade polity to mainstream sustainability in economic development; 3: Public opinion is highly informed and people are asserting their influence and are demanding environmental protection and sustainability from their politicians.				
1.4:Sustained participation and continuous	0: Key stakeholders neither regularly participate in EMIS nor				

updating of the respective environmental databases by the respective participating organizations in National EMIS	update the information they contribute to it. 1: Few of the key stakeholders participate and contribute their updated information to EMIS 2: Most of the key stakeholders participate in EMIs but the date they contribute is dated; there are no regular updates of their databases making up the EMIS. 3: All Key stakeholders participate in EMIS, are able to update their respective data bases regularly and make them consistently available to and through the EMIS platform.				
Capacity 2: Capacities to generate, access, and use information and knowledge					
Indicator	Score ratings	Baseline Score	Expected Score at project closure	Contribution to which outcome	Comments
2.1: Access and sharing of environmental information by stakeholders	0: The environmental information needs are not identified, and the information management infrastructure is inadequate 1: The environmental information needs are identified, but the information management infrastructure is inadequate 2: The environmental information is partially available and shared among				

	stakeholders, but is not covering all focal areas and/or the information infrastructure (the management and access to information) is limited 3: Comprehensive environmental information is available and shared through an adequate information management infrastructure				
2.2: Extent of the linkage between environmental research/ science and policy development	0: No linkage exist between environmental policy development and science/research strategies and programmes 1: Research needs for environmental policy development are identified, but are not translated into relevant research strategies and programmes 2: Relevant research strategies and programmes for environmental policy development exist, but the research information is not responding fully to the policy research needs 3: Relevant research results are available for environmental policy development				
2.3: An Environmental	0: No EMIS exists				

Information management System for Pakistan developed under the NEMIS project is functioning effectively and sustainably	1: EMIS exists but not functional 2: EMIS exists but not functioning effectively 3: EMIS exists and functioning effectively and sustainably				
2.4: Quality and reliability of environment data	0: No Environmental data exists 1: Environmental data exists but is partial and unreliable. 2: Environmental data exists; although it is partial but reliable; 3: Adequate and reliable environmental data is consistently available.				
2.5: A Market mechanism for sourcing and supplying environmental information.	0: No Market Mechanism exists for sourcing and supplying environmental information. 1: Environmental information obtained sourced from individuals and institutions directly on need basis. 2: A Market mechanism for generating and sourcing environmental information exists but not functional 3: An adequate market mechanism is functioning effectively.				

Capacity 3. Capacities for policy and legislation development					
Indicator	Score ratings	Baseline Score	Expected Score at project closure	Contribution to which outcome	Comments
3.1: Extent of the environmental planning and strategy development process	0: The environmental planning and strategy development process is not coordinated, and does not produce adequate environmental plans and strategies 1: The environmental planning and strategy development process produces adequate environmental plans and strategies, but they are not implemented or used effectively 2: Adequate environmental plans and strategies are produced, but are only partially implemented 3: The environmental planning and strategy development process is well coordinated by the lead environmental organizations, and produces the required environmental plans and strategies, which are being implemented				
3.2: Adequacyofthee nvironmentalinf	0: Decision makers in key position have no direct access to required environmental				

ormationavailablefordecision-making	information for day to day decision making; 1:Decision makers have limited direct access to required environmental information; they rely on others to provide information that takes a long time. 2: Decision have makers have direct access to most of the environmental information but are still dependent on others for some of the information; 3: Political and administrative decision-makers have direct and full access to all the key environmental information they require for day to day decision making.				
3.3: Political Commitment, enhanced capacities and Support for protecting environment and mainstreaming sustainability in economic development	0: Political will, capacities and support mainstreaming sustainability in economic development is completely lacking; environment committees of the legislative bodies are non-existing; technical advice from administrative structures tasked with environment-development integration is mostly ignored.				

	1: Islands of political will and support are there but critical mass is lacking and their influence in mainstreaming sustainability in economic development is therefore limited; environment committees of the legislative bodies exist but are dormant; technical advice from administrative structures tasked with environment-development integration is partially accepted, at will. 2: Majority of the political leadership is environmentally aware and supportive; environment committees of the legislative bodies exist and function, albeit intermittently; the recommendations of the administrative structures tasked with integrating environment and development are accepted but it is not a norm and some projects with vested interests continue to escape adequate environmental review and integration. 3: Political leaderships across the spectrum is fully committed and able to integrate environment and development; environment committees of				

	legislative bodies function regularly and effectively; administrative structures tasked with environment-development integration are free of political interference, their advice is accepted as a norm and they are encouraged, enabled and held accountable for effective integration of environment in economic development projects.				
3.4: Enhanced and improved country reporting against the three multilateral environmental agreements of CBD, UNFCC and CCD.	0: No country reporting is ever done under UNFCCC, UNCBD and UNCCD 1: Country reporting is being done but the reports are inadequate, of low quality and delayed. 2: Country reporting is timely. Although there are some gapes and needs for improvement, the reports are generally are adequate in content and quality. . 3: Country reporting is timely, complete and consistently of high quality.				

Annex 13. STANDARD LETTER OF AGREEMENT BETWEEN UNDP AND THE GOVERNMENT FOR THE PROVISION OF SUPPORT SERVICES

LETTER OF AGREEMENT (LOA)
BETWEEN UNITED NATIONS DEVELOPMENT PROGRAMME AND MINISTRY OF CLIMATE CHANGE, GOVERNMENT OF PAKISTAN
FOR THE PROVISION OF IMPLEMENTATION SUPPORT SERVICES FOR THE PROJECT ID 000 : PROJECT NAME:

Dear

1. Reference is made to consultations between the Ministry of Climate Change, Government of Pakistan (hereinafter referred to as "the Government") and officials of the United Nations Development Programme (UNDP) with respect to the provision of support services by the UNDP country office for nationally managed project titled "Generating Global Environmental benefits from Improved Decision Making " UNDP and the Government hereby agree that the UNDP country office may provide such support services at the request of the Government through its institution designated in the Country Programme Action Plan (CPAP), relevant programme support document or project document, as described below.

2. The UNDP country office may provide support services for assistance with reporting requirements and direct payments. In providing such support services, the UNDP country office shall ensure that the capacity of the Government-designated institution is strengthened to enable it to carry out such activities directly. The costs incurred by the UNDP country office in providing such support services shall be recovered from the administrative budget of the office.

3. The UNDP country office may provide, at the request of the designated institution, the following support services for the activities of the project:

(a) Identification and/orrecruitment of any project personnel, particularly international staff, consultants and experts from UNDP Asia Pacific Regional Centre;

(b) Identification and facilitation of training activities;

(c) Processing the direct project services payment requests;

(d) Procurement of goods and services, including management of the international procurements and all procurements valued at or above US$ 30,000;

4. The procurement of goods and services and the recruitment of project personnel by the UNDP country office shall be in accordance with the UNDP regulations, rules, policies and procedures. Support services described in paragraph 3 above shall be detailed in an annex to the programme support document or project document in the form provided in the attachment hereto. If the requirements for support services by the country office change during the life of a project, the annex to the programme support document or project document is revised with the mutual agreement of the UNDP Country Director and the designated institution.

5. The relevant provisions of the basic agreement (Special Fund Agreement between the Government of Pakistan and the United Nations Special Fund, which was signed by both parties on 25 February 1960) (the "SFA"), including the provisions on liability and privileges and immunities, shall apply to the provision of such support services. The Government shall retain overall responsibility for the nationally managed programme or project through its designated institution. The responsibility of the UNDP country office for the provision of the support services described herein shall be limited to the provision of such support services detailed in the annex to the programme support document or project document UNDP's assistance to the Government shall be made available to the Government and shall be furnished and received in accordance with the relevant and applicable resolutions and decisions of the competent UNDP organs, and subject to the availability of the necessary funds to the UNDP.

6. Any claim or dispute arising under or in connection with the provision of support services by the UNDP country office in accordance with this letter shall be handled pursuant to the relevant provisions of the SFA.

7. The manner and method of cost-recovery by the UNDP country office in providing the support services described in paragraph 3 above shall be specified in the annex to the programme support document or project document.

8. The UNDP country office shall submit progress reports on the support services provided and shall report on the costs reimbursed in providing such services, as may be required.

9. Any modification of the present arrangements shall be effected by mutual written agreement of the parties hereto.

10. If you are in agreement with the provisions set forth above, please sign and return to this office two signed copies of this letter. Upon your signature, this letter shall constitute an agreement between your Government and UNDP on the terms and conditions for the provision of support services by the UNDP country office for nationally managed programmes and projects.

Yours sincerely,

_____

Signed on behalf of UNDP
Tracy Vienings
Deputy Country Director-P

_____

For the Government

Date:

Annex

DESCRIPTION OF UNDP COUNTRY OFFICE SUPPORT SERVICES

1. Reference is made to consultations between Ministry of Climate Change, the institution designated by the Government of Pakistan and officials of UNDP with respect to the provision of support services by the UNDP country office for the nationally managed project ID: 000 *and titled* " ".

2. In accordance with the provisions of the LOA signed on _____ and the Country Programme Action Plan (CPAP), relevant programme support document *and the Annual Work Plan (AWP)*, the UNDP country office shall provide support services for the *Project* as described below.

3. Support Services to be provided:

Support services (insert description)	Schedule for the provision of the support services	Cost to UNDP of providing such support services (where appropriate)	Amount and method of reimbursement of UNDP (where appropriate)
Identification and recruitment of consultants	TBD	-	To be charged by UNDP based on actual costs incurred on each of these activities, not exceeding the amounts stipulated in this LOA.
Procurement of goods and services	TBD	-	To be charged by UNDP based on actual costs incurred on each of these activities, not exceeding the amounts stipulated in this LOA.
Processing payments	TBD	-	To be charged by UNDP based on actual costs incurred on each of these activities, not exceeding the amounts stipulated in this LOA.
	Total:	**Up to USD 24,888 from GEF grant**	

4. Brief description of functions and responsibilities of the parties involved in carrying above activities are given below:

The Implementing Partner, Ministry of Climate Change, Government of Pakistan is overall responsible for smooth implementation and achievement of project results, while UNDP Pakistan is required to extend its technical assistance, monitoring and oversight role in the project implementation to assure that project objectives are met and expected outcomes are achieved. In addition, the UNDP is also responsible for timely availability, provision and transfer of required funds from donor to the implementing partner.

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Annex 14.References

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Part III:GEF Endorsement and Co-financing Letters

Attached as separate documents.

1. CEO Endorsement Document

2. Letters of Co-financing Commitment.