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United Nations Development Programme

Country: Bangladesh

PROJECT DOCUMENT

Project Title: Bangladesh: Third National Communication to the UNFCCC

UNDAF Outcome (s): 3.1: By 2016, populations vulnerable to climate change and natural disaster have become more resilient to adapt to risks

UNDP Strategic Plan Environment and Sustainable Development Primary Outcome: UNDP will strengthen capacity at the community level to develop longer term climate change adaptation strategies. UNDP will also promote greater consideration of climate- poverty nexus in national policy.

UNDP Strategic Plan Secondary Outcome: UNDP will enhance governance for sustainable natural resource management and protection of ecosystems, including biodiversity. UNDP will also promote low carbon financing and enhance excess of the poor to green energy.

Expected CP Outcome(s): Environment, climate and disaster vulnerability reduced; Community Asset Score for disaster risk and reduction

Expected CPAP Output(s): Adaptation and risk reduction integrated at sector and community level

Executing Entity/Implementing Partner: Ministry of Environment and Forests (MoEF), Government of Bangladesh

Implementing Entity/Responsible Partner: Department of Environment, MoEF, Government of Bangladesh

Brief Description

The proposed project will enable the Government of the People's Republic of Bangladesh (GOB) to prepare and submit its Third National Communication (TNC) to the United Nations Framework Convention on Climate Change (UNFCCC). The activities of the TNC formulation project are a continuation and an update of the work undertaken by Bangladesh in preparing its Initial and Second National Communication, which were submitted to the CoP of the UNFCCC in 2002 and 2012 respectively. The main components of the TNC project are: (a) national circumstances, (b) inventories of greenhouse gases for 2006 - 2010, (c) programmes containing measures to mitigate GHG emission, (d) studies on vulnerability and impacts and formulate programmes containing measures to facilitate adequate adaptation to climate change, (e) programmes and plans that are considered relevant towards achieving the objectives of the UNFCCC, and (f) constraints and gaps, and related financial, technical and capacity needs. This process will facilitate the integration of climate change concerns (both mitigation and adaptation) into the national development policies and plans through sharing of knowledge and experiences and disseminating relevant data and information among more people, community and stakeholders from different socio-economic sectors. The TNC preparation process will also promote energy efficient pathways of growth and development, self reliance, reduction of risks from climate related hazards, strengthen cooperation between all relevant stakeholders and enhance capacity building at national level.

Programme Period: 2013-2016

Atlas Award ID: 00074288

Project ID: 00086756

PIMS #: 5170

Start Date: 01 September 2013

End Date: 30 August 2016

Management Arrangements: NIM

PAC Meeting Date: 21 May 2013

Total resources required: \$491,621

Total allocated resources: \$491,621

- Regular
 - Other:
 - GEF \$456,621
 - Government
 - In-kind
 - Other
- In kind contribution: \$35,000

Agreed by (Implementing Partner): _____ Date _____

Agreed by (ERD) _____ Date _____

Agreed by (UNDP) _____ Date _____

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Acronyms

AFOLU	Agriculture, Forestry and Other Land Use
ALGAS	Asia Least Cost Greenhouse Gas Abatement Strategy
APR	Annual Progress Report
BCCSAP	Bangladesh Climate Change Strategy and Action Plan
CBA	Community based adaptation
CNT	Core National Team
COP	Conference of the Parties
DOE	Department of Environment
FR	Financial Report
GBM	Ganges-Brahmaputra-Meghna (Rivers)
GDP	Gross Domestic Product
GEF	Global Environmental Facility
GgGiga gram	
GHG	Greenhouse Gases
GOB	Government of the People's Republic of Bangladesh
INC	Initial National Communication
IPCC	Inter-governmental Panel on Climate Change
IPPU	Industrial Processes and Product Use
IR	Inception Report
LDC	Least Developed Country
LULUCF	Land Use, Land-use Change and Forestry
MDG	Millennium Development Goals
MOEF	Ministry of Environment and Forests
MOP	Meeting of the Parties
NAPA	National Adaptation Programme for Action
NPD	National Project Director
NSC	National Steering Committee
PRSP	Poverty reduction Strategy Paper
REDD	Reducing emissions from deforestation and forest degradation
SNC	Second National Communication
TOR	Terms of Reference
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
USCCCSP	United States Climate Change Country Studies Programme

1. SITUATION ANALYSIS

Bangladesh with a population of nearly 150 million is one of the most densely populated countries of the world. Average population density here is 1045/km² and the country occupies an area of 147,570 km² (BBS, 2011).

The country is considered to be one of the most vulnerable to climate change because of its disadvantageous geographic location; flat and low-lying topography; funnel shaped coastline challenged by its high population density; high level of poverty; and reliance of various livelihoods on climate sensitive sectors, including agriculture, fisheries and water resources. Indeed, climate change poses a significant threat to the country. On average, approximately 25% of the total area is flooded every year (BCCSAP, 2009).

Projected climate change impacts in Bangladesh include sea level rise, higher temperatures and mean temperature increases of 1.4°C and 2.4°C projected by 2050 and 2100 respectively (IPCC, 2007); evapo-transpiration losses, enhanced monsoon precipitation and run-off, potentially reduced dry season precipitation, and increase in cyclone intensity. These various impacts would, in fact, reinforce many of the baseline stresses that already pose a serious impediment to the economic development of Bangladesh. Despite all adversities, GDP in Bangladesh has risen higher than 6-6.5 percent in recent years. Per capita income in 1999-2000 was around US\$367. By 2010-2011, per capita income increased by 122 percent to US\$818. Poverty has fallen over time from nearly 60 percent in 1991-1992 to 25.1 percent by 2011 (SNC Report, 2012). In 2010, the UNDP global Human Development Report ranked Bangladesh third out of 95 countries for the greatest progress achieved and for having doubled its Human Development Index since 1980 (UNDP Country Programme Document for Bangladesh 2012-16, p 2).

The significant progress Bangladesh has made over the years on various parameters reflect the efforts made by successive governments and civil society to tackle poverty and other development challenges, setting the country on course to potentially achieve five¹ out of eight Millennium Development Goals. This overall strong economic and social development progress has lent momentum to the aspirations and vision of Bangladesh to attain middle-income country status by 2021. Central to this vision is a strong focus on inclusive growth and poverty reduction, which is also reflected in the government's Outline Perspective Plan 2010-2021 and the forthcoming Sixth Five Year Plan, both of which were informed by the results of an extensive Millennium Development Goals assessment exercise undertaken jointly by the Government and United Nations system in 2010 (UNDP CPD Bangladesh 2012-2016, p 2).

Bangladesh is currently not on track to meet Millennium Development Goal 7 due to deforestation, growth of urban slums, and biodiversity loss. About half of the population is dependent on a rapidly degrading natural resource base, including forests for their livelihoods and only about 50 percent of households have access to on-grid energy. These environmental and climate change threats, compounded by Bangladesh's population pressure and institutional constraints, can undermine its development potential as well as reverse recent hard-earned gains (UNDP CPD Bangladesh, 2012-16, p3).

The Third National Communication project provides a renewed opportunity for efforts to enhance capacity within GOB agencies and personnel, while stakeholders are involved in consultations/workshops/round tables to voice their concerns on various relevant issues that relate to MDG 7 concerns; and other capacity building activities. For example, the workshops and meeting which will be organized during the implementation period of the TNC project will provide opportunities build on available knowledge on various aspects of climate change and will help develop and maintain a network among the policy makers, professional groups, scientists, governmental officials, civil society groups and other stakeholders for knowledge sharing and disseminating data and information for better understanding and implementing the components/activities of the TNC project. Coordination will be ensured through a Steering Committee to monitor each component and jointly review work plans of the project. Concerned stakeholders will be trained on procurement of activity data and archiving them in appropriate formats.

¹1. Poverty and hunger, 2. Primary education, 3. Gender equality, 4. Child mortality and 6. HIV and other major diseases

2. STRATEGY

The proposed **Third National Communications (TNC)** project will assist the GOB towards preparing the TNC for Bangladesh for submission to the UNFCCC towards fulfillment of obligation to the convention, following guidelines adopted by the COP of the UNFCCC.

Recognizing that there is a need for a balance among economic growth, socio-cultural development, and environmental harmony, it is envisaged that the project will establish linkages among the three. With this **rationale**, the TNC will probe into the sector with the highest GHG emissions found in SNC by completing an updated GHG emission inventory for 2006 to 2010 and identify issues, in line with NAPA, BCCSAP and other nationally available documents, sectors that will be affected most by climate change. The project will also highlight sectors/areas with the highest adaptation and mitigation potentials. The project will seek to promote the integration of climate change concerns into national sectoral/zonal development plans.

The main **objectives** of the TNC project includes preparing a report on national circumstances, GHG Inventory from different sectors, measures to mitigate climate change, measures to facilitate adequate adaptation to climate change and other related information, constraints and gaps, related financial, technical, & capacity needs.

The project will be implemented by the **Ministry of Environment and Forest (MoEF)/Department of Environment** of Government of Bangladesh through the UNDP Bangladesh Country Office to promote energy efficient pathways of growth and development, self-reliance, reduction of risks from climate related hazards, policy integration, cooperation, and GO-NGO collaboration.

The project will update data and information on climate change and respond to the major constraints and gaps identified in the Second National Communication. The activities of the project will strengthen the coordination, networks and information flows between ministries, different levels of government and civil society to have a more efficient integration of climate change variables into poverty reduction and development strategies.

In terms of **sustainability & replicability** the project will contribute in a major way towards the achievement of national sustainable development objectives in a number of different pathways:

First, the GHG emission inventory will allow key stakeholders to assess current position of the country in the wake of entering into the second phase of Kyoto climate regime. **Second**, the TNC processes will generate new wave of nationally available information on specific vulnerability and vulnerable sectors. This will help identify relevant adaptation measures by each vulnerable sector, and define a National Strategy for Adaptation to Climate Change. The latter will be a milestone towards ensuring a climate resilient development regime in the country. **Third**, institutional barriers towards implementation of adaptation programmes/ agenda currently hindering national efforts for achieving sustainable development will be identified and remedial measures will be devised/recommended, which in turn will allow a smoother institutional set up to deal with affairs relating to climate resilient development in the country. **Fourth**, the emission reduction stream of activities will generate ideas and programmes with win-win options for mitigation of GHG emissions. This will not only help the nation to meet the obligation to the UNFCCC and COP/MOP, it will also help the country's economy to grow in a carbon-efficient manner.

UNDP will continue to focus on developing the capacity of the Government to mainstream the climate-environment-poverty nexus into policy and planning frameworks across ministries, while augmenting community based risk reduction and adaptation capacities. UNDP will play a key role in the Local Consultative Group, including support to leadership of thematic groups with government counterparts and contributing to capacity development of national institutions (UNDP CPD, 2012-16, page-5, 6).

Finally, the enabling activities and the envisaged processes which will be undertaken through the TNC project will help planners and decision makers in reducing the overall climate change vulnerability of the country and ensure a climate resilient development in all spheres of life.

3. PROJECT RESULTS FRAMEWORK

This project will contribute to achieving the following Country Programme/UNDAF Outcome as defined in CPAP or CPD: 3.1: By 2016, populations vulnerable to climate change and natural disaster have become more resilient to adapt to risks, 3.2: By 2016, vulnerable populations benefit from better natural resource management and access to low carbon energy					
Country Programme Outcome Indicators: Environment, climate and disaster vulnerability reduced; Community Asset Score for disaster risk and reduction, and Number of new government policies, strategies or plans formulated in support of sustainable use of natural resources; Energy from renewable sources, Land area covered by forest					
Related Strategic Plan focus areas: Environment and sustainable development					
Primary applicable Key Environment and Sustainable Development Key Result Area (same as that on the cover page, circle one): 1. Promote climate change adaptation and mitigation					
Applicable GEF Strategic Objective and Program: Enabling Activities(CCM-6): Support enabling activities and capacity building under the Convention					
Applicable GEF Expected Outcomes: Adequate resources allocated to support enabling activities under the Convention					
Applicable GEF Outcome Indicators: Completed and submitted Third National Communication (TNC)					
GEF Outcome/Atlas Activity	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
Project Objective: Preparation of the Third National Communication (TNC)	(a)Increased capacity of the government and civil society to take informed action on climate change. Level of National Adaptive Capacity determined by: <ul style="list-style-type: none"> • Availability of climate change scenarios. • Availability of vulnerability assessments. • Level of stakeholder engagement. (b)TNC prepared and submitted to the UNFCCC in 2016	Information provided in the SNC, INC, NAPA, BCCSAP	a) General awareness on mitigation, adaptation and other climate change related issues created. (b) At least 8 workshops organized. c) Approval and submission of the TNC to the UNFCCC	Project evaluation and documentation from the UNFCCC	Risks: None. Assumptions: - Programmes and vulnerability studies developed will be accepted by and socialized into line ministries and other related organizations for proper planning. - Once experience and knowledge gathered, Govt. officials and civil society members will work to mainstream CC into work programmes. - Necessary political and administrative support will be provided to prepare the TNC
Activity 1 National Circumstances reviewed, updated and a chapter on National Circumstances prepared	(a) No. of Core Sectoral Working Group(CSWG) members that say the National Circumstances are updated using latest available data (b)Completion of chapter on national circumstances	2010-2011statistical data and information	Report (chapter) on National Circumstances prepared with updated information	a)Completed report (chapter) on National Circumstances (b)Project M&E database(c) National statistics from Bangladesh Bureau of Statistical Yearbooks	Risks: None. Assumptions: - It is assumed that data/information required to update National Circumstances document will be available to the Project
Activity 2 National GHG	No. of Core Sectoral Working Group members that say the inventory is prepared using	(a)GHG Inventory for 1994(INC) and	(a) National capacity for preparing sector specific emission	(a)Project documentation,	Risks: (a) Non availability and incomplete activity data in all sectors may create problem to prepare a quality GHG

<p>Inventory for the year 2006-2010 for (i) Energy, (ii) Industrial Process and Product Use (IPPU), (iii) Agriculture, Forestry and other Land Use (AFOLU), and (iv) Waste sectors prepared.</p>	<p>quality data</p>	<p>for 2001-2005(SNC). (b)SNC database.</p>	<p>inventory developed. (b)Data procurement and establishment of database management system completed. (c) GHG Inventory for 2006- 2010 highlighting emission sources and sinks prepared. (d) 30+ people trained for data archiving and GHG Inventory preparation.</p>	<p>(b)Government reports. (c)UNFCCC in depth-review data. (d)External expert review (NCSP).</p>	<p>Inventory. (b)Incapability of developing local emission factors in Agriculture and Waste sectors. (c)Data gaps in Forest sector Assumptions: (a) Officials of the government, non-government and private organizations will be able to properly store and provide those data to the technical team of the TNC project. (b)The problems will be solved by using IPCC default values and Indian local emission factors. (c) Qualified and capable technical personnel can be assigned to solve the problems of data gaps in Forest sector.</p>
<p>Activity 3 Programmes containing measures to facilitate adequate adaptation to climate change are carried out.</p>	<p>(a)Availability of integrated assessment of climate change impact on water resources, agriculture, forest and ecosystem, biodiversity, livestock, fisheries, infrastructure and urban areas. (b)Adaptation plan preparation for coastal areas, drought prone areas and other sectors of Bangladesh. (c)Detailed micro level analyses done of climate variability and their impacts on water resources and agriculture.</p>	<p>Information provided in the SNC and other government and NGOs reports</p>	<p>(a)Development of micro level climate variability scenarios and assessment of their impacts on various sectors. (b)V&A assessment for key sectors including coastal zones. (c)Improved planning of urban and coastal areas considering the effect of climate change.</p>	<p>(a) NAPA, BCCSAP and other government and NGO reports on vulnerability assessment and adaptation policy and strategies. (b)External experts Including CSWG members (c)Completed report (chapter) on V&A assessments</p>	<p>Risks: (a) Lack of required data and qualified personnel can create problem for micro level analyses of climate variability and their impacts. (b)Lack of methodology/software/data for impact assessment. Assumptions: Experienced and qualified national expert/personnel can be assigned to undertake the V&A assessment and develop the micro level climate variability scenarios.</p>
<p>Activity 4 Programmes containing measures to mitigate GHG emission formulated</p>	<p>(a) Appropriate models like LEAP, COMAP, IMAGE etc. used for baseline and mitigation scenarios (b) Cost analysis for all mitigation measures carried out. (c) Level of stakeholder engagement</p>	<p>Base year results from 2005 GHG Inventory</p>	<p>(a) Mitigation strategy and measures especially for LUCF and for CH4 in the agriculture sector formulated. (b) Mitigation chapter for the SNC prepared.</p>	<p>(a) Government and other available reports. (b) Review by external experts. (c) Small scale sample survey</p>	<p>Risks: Lack of detailed data for LUCF and CH4 for agriculture sector. Assumptions: Government and semi-government organizations will provide data to formulate appropriate mitigation options and measures. (b) TNC will be benefitting from the experiences gathered from the SNC</p>

<p>Activity 5</p> <p>Other information relevant to the object of the UNFCCC and Constraints and Gaps, related Financial, Technical & Capacity Needs documented</p>	<p>(a) Inclusion of climate change issues into country's social, economic and environmental policies ensured.</p> <p>(b) Awareness on climate change issues increased</p> <p>(c) Constraints, gaps, and needs and activities for overcoming gaps etc. assessed.</p> <p>(d) Information on financial resources and technical support received from various sources documented.</p> <p>(e) Information on financial, technical and capacity needs collected.</p>	<p>(a) Information provided in the SNC</p> <p>(b) Information provided in various government, and NGO reports</p>	<p>(a) Increased integration of climate change issues into national development planning and policies.</p> <p>(b) A chapter on Other Relevant Information is prepared.</p> <p>(c) Compile information on financial, technical and capacity needs and prepare a chapter on the Constraints and gaps, related financial, technical and capacity needs.</p>	<p>(NGO's reports.</p> <p>(b) National peer review and CSWG member's review</p> <p>© Completed report on Other information</p>	<p>Risks: As the requisite information are scattered over many institutions it might be difficult to collect them.</p> <p>Assumptions: As the process of mainstreaming climate change in country's development thinking and practice has already begun, the government institutions and NGOs will be willing and share data and information.</p>
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4. Total budget and work plan

Award ID:		00074288		Project ID(s):		00086756					
Award Title:		Bangladesh: Third National Communication to the UNFCCC									
Business Unit:		BGD10									
Project Title:		Bangladesh: Third National Communication to the UNFCCC									
PIMS no. :		5170									
Implementing Partner (Executing Agency)		Ministry of Environment (MoEF)/Department of Forests (DoE)									
GEF Outcome/Atlas Activity	Responsible Party/ Implementing Agent	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 2013 (USD)	Amount Year 2014 (USD)	Amount Year 2015 (USD)	Amount Year 2016 (USD)	Total (USD)	Budget Notes:
Outcome 1 National Circumstances	MOEF/DOE/ UNDP	62000	GEF	71300	Local Consultants	\$2,200	\$4,300	\$5,000	-	\$11,500	1
				71400	Service Contract Individual	-	-	\$1,000	-	\$1,000	2
				75700	Workshop	-	\$1,200	\$1,300	-	\$2,500	3
				72200	Equipment	\$2,000	-	-	-	\$2,000	4
				74500	Miscellaneous	\$1,000	\$1,000	\$1,000	-	\$3,000	26
					Sub-total	\$5,200	\$6,500	\$8,300	-	\$20,000	
Outcome 2 GHG Inventory	MOEF/DOE/ UNDP	62000	GEF	71300	Local Consultants	\$8,500	\$29,500	\$21,500	\$3,500	\$63,000	5
				71400	Service Contract Individual	\$5,000	\$5,000	-	-	\$10,000	2
				75700	Workshop & Training	\$2,000	\$3,000	\$3,000	\$2,000	\$10,000	6
				71600	Travel	\$2,000	\$4,000	\$1,000	-	\$7,000	7
				72200	Equipment	\$9,000	-	-	-	\$9,000	8
				74500	Miscellaneous	\$2,000	\$3,000	\$2,000	-	\$7,000	26
					Sub-total	\$28,500	\$44,500	\$27,500	\$5,500	\$106,000	
Outcome 3 Studies on vulnerability and impacts, and formulation of programmes containing measures to facilitate adequate adaptation to climate change	MOEF/DOE/ UNDP	62000	GEF	71300	Local Consultants	\$13,500	\$24,500	\$10,000	\$4,400	\$52,400	9
				71400	Service Contract Individual	\$5,000	\$8,000	\$14,000	\$5,000	\$32,000	2
				75700	Workshop & meeting	\$2,000	\$3,000	\$3,000	\$4,000	\$12,000	10
				71600	Travel	\$1,000	\$4,000	\$3,000	\$1,000	\$9,000	11
				72200	Equipment	\$2,000	-	-	-	\$2,000	12
				72500	Office Supplies	\$1,300	\$400	\$400	\$400	\$2,500	13

				74500	Miscellaneous	\$2,000	\$4,000	\$3,800	-	\$9,800	26
					Sub-total	\$26,800	\$43,900	\$34,200	\$14,800	\$119,700	
Outcome 4	MOEF/DOE/ UNDP	62000	GEF	71300	Local Consultants	\$13,000	\$25,000	\$15,000	\$7,000	\$60,000	14
Programmes containing measures to mitigate GHG emission				71400	Service Contract Individual	\$3,000	\$5,000	\$6,000	\$2,000	\$16,000	2
				75700	Workshop	\$2,000	\$2,000	\$3,000	\$2,000	\$9,000	15
				71600	Travel	\$1,000	\$2,500	\$2,500	-	\$6,000	16
				72200	Equipment	\$2,000	-	-	-	\$2,000	17
				74500	Miscellaneous	-	\$1,000	\$1,000	-	\$2,000	26
					Sub-total	\$21,000	\$35,500	\$27,500	\$11,000	\$95,000	
Outcome 5	MOEF/DOE/ UNDP	62000	GEF	71300	Local Consultants	\$5,000	\$10,000	\$10,000	\$5,300	\$30,300	18
Other information, and Constraints and Gaps, related Financial, Technical & Capacity Needs				71400	Service Contract Individual	\$2,000	\$4,000	\$3,000	\$1,000	\$10,000	2
				75700	Workshop	-	\$1,000	\$1,500	\$1,500	\$4,000	19
				71600	Travel	-	\$300	-	-	\$300	16
				72200	Equipment	\$2,000	\$1,000	-	-	\$3,000	4
				74500	Miscellaneous	\$500	\$500	\$500	\$200	\$1,700	26
					Sub-total	\$9,500	\$16,800	\$15,000	\$8,000	\$49,300	
Outcome 6	MOEF/DOE/ UNDP	62000	GEF	71300	Local Consultants	-	\$500	\$5,000	\$7,000	\$12,500	20
Compile, review, translate, edit and publish the final report, and dissemination workshop				71200	International Consultant	-	-	-	\$4,000	\$4,000	21
				74200	Printing and publication	-	\$500	\$500	\$5,500	\$6,500	22
				75700	Workshop	-	-	-	\$2,000	\$2,000	23
				74500	Miscellaneous	-	-	-	\$321	\$321	26
					Sub-total	-	\$1,000	\$5,500	\$18,821	\$25,321	
PROJECT MANAGEMENT UNIT	MOEF/DOE/ UNDP	62000	GEF	71400	Service Contract Individual (3)	\$7,200	\$11,916	\$11,945	\$4,279	\$35,340	24
				74599	UNDP cost recovery chrgs Bills	\$800	\$84	\$55	\$121	\$1,060	27
				71600	Travel	\$980	\$1,470	\$1,470	\$980	\$4,900	25
					Sub-total	\$8,980	\$13,470	\$13,470	\$5,380	\$41,300	
PROJECT TOTAL						\$99,980	\$161,670	\$131,470	\$63,501	\$456,621	

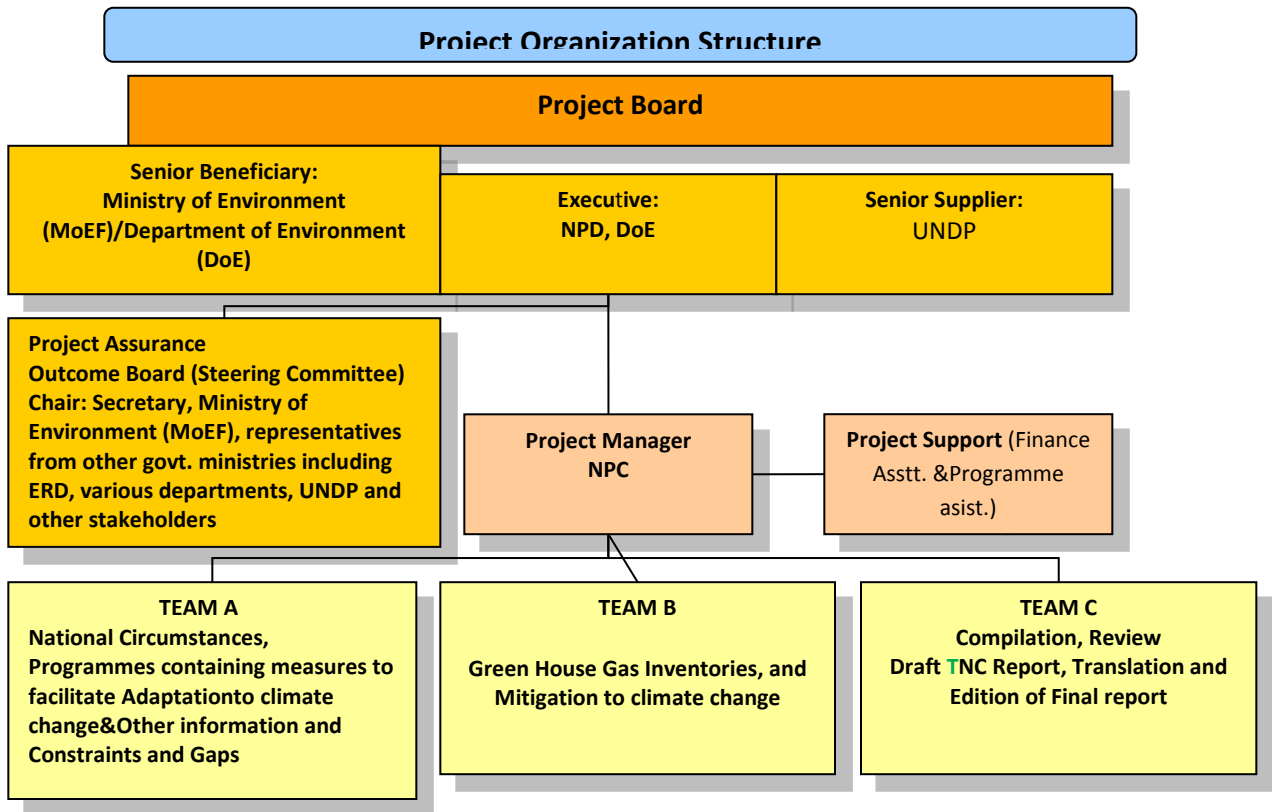
Specific notes (The numbers correspond to the last column of table 1)

1. Local consultants /consulting firm to be hired for updating the information base and writing the Chapter on National circumstances.
2. Remuneration for project officials.

3. Workshop to be organized for enhancing, networking and information sharing/exchange amongst all stakeholders.
4. Equipment includes computer and accessories (purchase/hiring).
5. Local consultants/consulting firm to be hired for preparing the National GHG Inventory for 2006-2010.
6. Workshop for presentation and discussion on the results obtained from the GHG Inventory. Training for data collection, analysis, archiving and establishing data management system at the Department of Environment (DoE), and for using the IPCC technical guidelines to build national capacity on GHG Inventory preparation.
7. Travel costs for vehicles for collecting data from various related national sources to prepare GHG Inventory and fill inventory data gaps.
8. Equipments include computer and accessories (purchase) for data processing, archiving and management at DoE and other equipment (purchase and hiring) for developing local emission factors.
9. Local consultants/consulting firm to be hired for conducting climate change vulnerability and adaptation assessments.
10. Workshops for discussion on V&A assessments and meeting for monitoring and overseeing the progress of the activities.
11. Travel costs for collecting information for V&A assessments, for hiring vehicles for official use, supervising project activities, organizing meetings, workshops and other project events throughout the country and for participating in the workshops to be organized by UNFCCC/NCSP.
12. Equipments (Laptop, Fax, Scanner) for conducting activities of the project.
13. Office supplies include furniture for the project office, office facilities etc.
14. Consultants/consulting firm to be hired for conducting mitigation analysis and preparing a chapter on GHG emission mitigation.
15. Workshop to present the results of the climate change mitigation analysis and draft national action plan based on the comments of the stakeholders.
16. Travel costs for vehicles for supervising activities and collecting data from various sources.
17. Equipment includes printer, photocopier and accessories for official use.
18. Local consultants/consulting firm to be hired for preparing the chapter on other information considered relevant towards achieving the objective of the UNFCCC, and Constraints and gaps.
19. Workshops on the assessment and results of technical requirements, and research and systematic observation and on ways to promote climate change education, training, and public awareness.
20. Local Consultants to be hired for compilation of the 5 draft chapters, translation, and edition of the TNC.
21. International consultant to be hired for reviewing the draft final report of the TNC.
22. Mainly includes printing and reproduction cost of brochures, reports and final report of the TNC.
23. Workshop for dissemination of the TNC among the stakeholders.
24. Service Contract individual (3) for smooth functioning and implementing the project activities.
25. Travel costs (DSA and Ticket) of the Project Manager/ Project Coordinator for participating and assisting to workshops/meetings to be organized by UNFCCC/NCSP.
26. Miscellaneous (sundries: communication, various stationary articles, photocopy, mobile card etc.) support for implementing the activities.
27. Direct project costs (HR activities; recruitment of project personnel, issuance of contracts; Procurement; Finance Transactions performed on behalf of Implementing Partner)

Summary of Funds:	Amount Year 2013	Amount Year 2014	Amount Year 2015	Amount Year 2016	Total
GEF	\$99,980	\$161,670	\$131,470	\$63,501	\$456,621
Donor 2 - UNDP	-	-	-	-	-
Donor 3 (in-kind) - Government	\$7,000	\$12,000	\$12,000	\$4,000	\$35,000
TOTAL	\$106,980	\$173,670	\$143,470	\$67,501	\$491,621

5. Management Arrangements



The project will be executed according to UNDP's National Implementation Modality (NIM), as per the NIM project management implementation guidelines agreed by UNDP and the Government of Bangladesh.

The project will be implemented by the Ministry of Environment and Forests (MOEF) through its technical wing, the Department of Environment (DOE). A National Project Director (NPD) will be appointed from the Department of Environment for the preparation of the TNC. A technically sound and experienced Project Manager/ National Project Coordinator (NPC) will facilitate and guide the processes of developing the TNC, while a Project Support Team will operate under the supervision of the NPD/Director General and National Steering Committee (NSC). Two or more National Teams comprising national experts from different consulting firms will be formed to enable the Project Support Team to conduct the activities of the components of the TNC for its preparation. One Finance Assistant and one Programme Assistant will assist the Project manager/NPC for implementing the project activities. Two or more DoE/MoEF officials may be assigned with the national team on part time basis to collect activity data and prepare the GHG inventory to build the capacity of DoE for future GHG inventory preparation. The National Team will also arrange/facilitate capacity building activities under the project.

Since the proposed TNC will be a GoB document, its preparation/formulation will primarily be directed and guided by relevant government officials, institutions and Project Manager (National Project Coordinator) with active support from technically sound national experts, professionals and other non-government organizations including UNDP Bangladesh.

On behalf of the GoB, the Focal Point on Climate Change issues, the Ministry of Environment and Forests (MOEF) will have full authority and ownership on the overall document. MOEF will also retain the authority to submit and/or reject the TNC following its completion. As the Technical Wing of MOEF, the Department of Environment (DOE) will be responsible to prepare the TNC with the support of national experts and professionals. As the UNFCCC and GEF Focal Point in Bangladesh and the implementation partner for Bangladesh is UNDP Mission, the MOEF will also be accountable for the delivery of the project outputs and the achievements of the project activities as outlined in the above section.

The National Project Director (NPD) will plan the project activities and outcomes, carry out the overall management responsibilities, ensure the day-to-day progress of various activities of the project. The day-to-day planning, implementation and management of the project will be administered by the Project Support Team under the guidance of the NPD and the Project Manager/NPC. The NPD will report time to time to the National Steering Committee (NSC) headed by the Secretary, MOEF, which is proposed for overseeing the correctness of the analyses, usefulness of inferences drawn, and implementation modalities of various recommendations about to be generated, and making sure that the findings are technically acceptable to international as well as national experts.

The national core teams will be chosen from national institutions/consulting firms having adequate experience in contributing to the tasks already outlined in earlier section. The NPD in consultation with the NSC will allocate tasks according to prior experience in delivering the tasks and comparative advantage of individual expertise /consulting firm available nationally. The Project Manager (or National Project Coordinator) may be appointed on a full time basis so that he can continue to perform the tasks of the TNC. On behalf of the Core Team, he will liaise with responsible institutions which are given specific responsibilities to carry out. Moreover, he will supervise the finalization of the activity reports from each stream, in cooperation with the NPD and the responsible partner institutions/individual members of the core team.

The Project Coordinator will assist the core teams to deliver outputs on time and provide technical guidance as necessary. He will assist the NPD to ensure timely quality delivery of outputs. He will also organize, in close cooperation with the DOE, national and sub-national/stakeholder consultations and discussions/informed roundtables with institutional Focal Points of sectoral agencies.

UNDP Bangladesh Country Office will facilitate the implementation of the project, provide support services to the project in accordance with the UNDP procedures as requested by the NPD and/or his representative or may follow national rules and regulations, as applied. These services may include sub-contract arrangements with individual experts/professionals (project Support Team members) and national institutions/consulting firms and procurement of goods and services as necessary.

6. Monitoring Framework and Evaluation

The project will be monitored through the following M& E activities. The M& E budget is provided in the table below.

Project start: A Project Inception Workshop will be held within the first 2 months of project start with those with assigned roles in the project organization structure, UNDP country office and where appropriate/feasible regional technical policy and programme advisors as well as other stakeholders. The Inception Workshop is crucial to building ownership for the project results and to plan the first year annual work plan.

The Inception Workshop will address a number of key issues including:

- a) Assist all partners to fully understand and take ownership of the project. Detail the roles, support services and complementary responsibilities of UNDP CO and RCU staff vis à vis the project team. Discuss the roles, functions, and responsibilities within the project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms. The Terms of Reference for project staff will be discussed again as needed.

- b) Based on the project results framework and the relevant GEF Tracking Tool if appropriate, finalize the first annual work plan. Review and agree on the indicators, targets and their means of verification, and recheck assumptions and risks.
- c) Provide a detailed overview of reporting, monitoring and evaluation (M&E) requirements. The Monitoring and Evaluation work plan and budget should be agreed and scheduled.
- d) Discuss financial reporting procedures and obligations, and arrangements for annual audit.
- e) Plan and schedule Project Board meetings. Roles and responsibilities of all project organization structures should be clarified and meetings planned. The first Project Board meeting should be held within the first 12 months following the inception workshop.

An Inception Workshop report is a key reference document and must be prepared and shared with participants to formalize various agreements and plans decided during the meeting.

Quarterly:

- Progress made shall be monitored in the UNDP Enhanced Results Based Management Platform.
- 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).
- Based on the information recorded in Atlas, a Project Progress Reports (PPR) can be generated in the Executive Snapshot.
- 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.

Bi-annually:

- Status Survey Questionnaires to indicate progress and identify bottlenecks as well as technical support needs will be carried out and answered twice a year.

Periodic Monitoring:

A detailed schedule of project reviews meetings will be developed by the project management, in consultation with project implementation partners and stakeholder representatives and incorporated in the Project Inception Report. Such a schedule will include: (i) tentative time frames for Steering Committee Meetings, (or relevant advisory and/or coordination mechanisms) and (ii) project related Monitoring and Evaluation activities.

Day to day monitoring of implementation progress will be the responsibility of the Project Coordinator, Director or CTA (depending on the established project structure) based on the project's Annual Work plan and its indicators. The Project Team will inform the UNDP-CO of any delays or difficulties faced during implementation so that the appropriate support or corrective measures can be adopted in a timely and remedial fashion.

Periodic monitoring of implementation progress will be undertaken by the UNDP-CO through quarterly meetings with the project proponent, or more frequently as deemed necessary. This will allow parties to take stock and to

troubleshoot any problems pertaining to the project in a timely fashion to ensure smooth implementation of project activities.

End of Project:

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.

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 \(ERC\)](#).

The relevant GEF Focal Area Tracking Tools will also be completed during the final evaluation.

During the last three months, the project team will prepare the Project Terminal Report. This comprehensive report will summarize the results achieved (objectives, outcomes, outputs), lessons learned, problems met and areas where results may not have been achieved. It will also lay out recommendations for any further steps that may need to be taken to ensure sustainability and replicability of the project's results.

Audit on project will follow UNDP Financial Regulations and Rules and applicable Audit policies.

Learning and knowledge sharing:

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

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 through lessons learned. The project will identify, analyze, and share lessons learned that might be beneficial in the design and implementation of similar future projects.

Finally, there will be a two-way flow of information between this project and other projects of a similar focus.

Communications and visibility requirements:

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>.

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.

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

M& E work plan and budget

Type of M&E activity	Responsible Parties	Budget US\$ <i>Excluding project team staff time</i>	Time frame
Inception Workshop and Report	<ul style="list-style-type: none"> ▪ Project Manager ▪ UNDP CO, UNDP GEF 	Indicative cost: 3,000	Within first two months of project start up
Measurement of Means of Verification of project results.	<ul style="list-style-type: none"> ▪ UNDP GEF RTA/Project Manager will oversee the hiring of specific studies and institutions, and delegate responsibilities to relevant team members. 	To be finalized in Inception Phase and Workshop.	Start, mid and end of project (during evaluation cycle) and annually when required.
Measurement of Means of Verification for Project Progress on <i>output and implementation</i>	<ul style="list-style-type: none"> ▪ Oversight by Project Manager ▪ Project team 	To be determined as part of the Annual Work Plan's preparation.	Annually prior to ARR/PIR and to the definition of annual work plans
ARR/PIR	<ul style="list-style-type: none"> ▪ Project manager and team ▪ UNDP CO ▪ UNDP RTA ▪ UNDP EEG 	None	Annually
Periodic status/ progress reports	<ul style="list-style-type: none"> ▪ Project manager and team 	None	Quarterly
Final Evaluation	<ul style="list-style-type: none"> ▪ Project manager and team, ▪ UNDP CO ▪ UNDP RCU ▪ External Consultants (i.e. evaluation team) 	Indicative cost: 10,000	At least three months before the end of project implementation
Project Terminal Report	<ul style="list-style-type: none"> ▪ Project manager and team ▪ UNDP CO ▪ local consultant 	0	At least three months before the end of the project
Audit	<ul style="list-style-type: none"> ▪ UNDP CO ▪ Project manager and team 	Indicative cost : 3,000	Yearly
Visits to field sites	<ul style="list-style-type: none"> ▪ UNDP CO ▪ UNDP RCU (as appropriate) ▪ Government representatives 	For GEF supported projects, paid from IA fees and operational budget	Yearly
TOTAL indicative COST		US\$ 16,000	
Excluding project team staff time and UNDP staff and travel expenses		(+/- 5% of total budget)	

7. Legal Context

This document together with the CPAP signed by the Government and UNDP which is incorporated by reference constitute together a Project Document as referred to in the SBAA [or other appropriate governing agreement] and all CPAP provisions apply to this document.

Consistent with the Article III of the Standard Basic Assistance Agreement, the responsibility for the safety and security of the implementing partner and its personnel and property, and of UNDP's property in the implementing partner's custody, rests with the implementing partner.

The implementing partner shall:

- a) put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;
- b) assume all risks and liabilities related to the implementing partner's security, and the full implementation of the security plan.

UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of this agreement.

The implementing partner agrees to undertake all reasonable efforts to ensure that none of the UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via <http://www.un.org/Docs/sc/committees/1267/1267ListEng.htm>. This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document.

This Project Document shall be the instrument referred to as such in Article I of the Standard Basic Assistance Agreement between the Government of Bangladesh and the United Nations Development Programme, signed by the parties. The host country implementing agency shall, for the purpose of the Standard Basic Assistance Agreement, refer to the government co-operating agency described in that Agreement. The UNDP Resident Representative/Country Director is authorized to effect in writing the following types of revision to this Project Document, provided that he/she has verified the agreement thereto by GEF Unit and is assured that the other signatories to the Project Document have no objection to the proposed changes:

- a) Revision of, or addition to, any of the annexes to 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 the inputs already agreed to or by cost increases due to inflation;
- 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; and
- d) Inclusion of additional annexes and attachments only as set out here in this Project Document.

8. Project Activities and Expected Outputs:

8.1 National Circumstances

The Third National Communication will revise national circumstances, based on current realities. It will carry out review of the updated statistical information (as available), national policies and developing strategies of the country.

This chapter will focus on the present status of the country including geographical characteristics, geological, physiographic, climate, forests, land use, socio-economic, demographic and other environmental characteristics in the context of climate change response. In order to synthesize and highlight national circumstances, available secondary sources will be sought and utilized. Updated national and regional scale statistical tables (primary source: BBS Yearbooks) will be collated and used extensively to provide statistical information. Geographic, climatological, infrastructural, agro-ecological, water and energy related data and information will be collected from various national institutions.

The lack of link is most apparent in the treatment of the socio-economic issues described in the Second National Communication (SNC). Poverty has been discussed as a general issue in the chapter of National Circumstances. But it should rather be related to climate change and climatic variability. Only then it becomes relevant in the present context. However, a necessary condition for this to happen is that there must be prior analyses of such issues. We have little rigorous information and analysis of the links between poverty and climatic variability or between disaster and poverty in Bangladesh context. There are sporadic and anecdotal studies perhaps but not quantitatively and empirically rigorous ones which can show the links. The same is the case with growth in general and sectoral growths in particular. And this is true even for agriculture, probably the most climate-dependent human system.

In fact, women face the same or similar stresses of climate change and its impacts as men. Such stresses may get compounded as most climate change issues, policies and programs are not found to be gender neutral. So, women need to be meaningfully involved in development efforts, decision-making and planning process.

Understanding how the different social roles and economic status of men and women affect, and are affected differently by climate change will improve actions taken to adapt to and to mitigate climate change. For this reason the TNC components on, *i) the national circumstances and ii) studies on vulnerability and impacts and programmes containing measures to facilitate adequate adaptation to climate change* will consider this gender dimension in order to better understand how the different roles of men and women in Bangladesh' social and economic circumstances may affect the country's ability to deal with mitigating and adapting to climate change.

In general this is true that in the SNC there are only limited analyses of how various national circumstances, physical, natural, and socio-economic relate to each other and to climate. But it is high time that this be the main criteria for inclusion of issues under the rubric of National Circumstances of the Third National Communication.

The activities and the outputs of the chapter on National Circumstances are as follows:

Activities:

1. Identify information needs and collect necessary updated data from relevant sources.
2. Analyze all available national and sectoral strategies, plans, programmes and studies relevant to the formulation of the TNC, including national development blueprints and poverty reduction strategy papers and strategies.

3. Update the information base on geographical characteristics including climate, forests, land use and other environmental characteristics.
4. Update information base on population, economy and other services sector which may affect country's ability to deal with mitigating and adapting to climate change.
5. Conduct studies on how the different roles of men and women in Bangladesh's social and economic circumstances may affect the country's ability to deal with mitigating and adapting to climate change.
5. Analyze poverty-climate links.
6. Prepare a Draft National Circumstances chapter of the TNC based on outputs of the above activities.
7. Conduct consultation of stakeholders on the draft national circumstances chapter, and finalize as an input to the TNC by incorporating comments and feedbacks of stakeholders.

Outputs:

1. All available national and sectoral strategies, plans, programmes and studies relevant to the formulation of the TNC, including national development blueprints and poverty reduction strategy papers and strategies analyzed.
2. Information on geographical characteristics including climate, forests, land use and other environmental characteristics and information on population, economy and other services sector updated.
3. Information regarding specific needs and concern arising from the adverse impacts of climate change and the implementation of response strategies provided.

8.2 Green House Gas Inventory of the TNC

It is envisaged that the Emission Inventory under the TNC will be conducted following the revised IPCC 1996 and 2006 Guidelines. It will also draw on the IPCC Good Practice Guidance and Uncertainty Management in National GHG Inventories, and the Good Practice Guidance on Land Use, Land-use Change and Forestry. The Inventory of the Third National Communication (TNC) of Bangladesh will be based on the 2006 IPCC Guidelines and the equations provided there will be used where available activity data permit. "In the cases where the 2006 IPCC Guidelines are identical to the revised 1996 IPCC Guidelines or where the data required are similar, the existing data can be used in the 2006 IPCC Guidelines without any modification or adjustment". According to the decision of COP, GWPs calculated in the Second Assessment Report (SAR, 1995) are to be used until the end of 2012. The revised 1996 IPCC Guidelines are based on the findings of SAR.

All the major stages of inventory preparation, as outlined in the revised 1996 and 2006 IPCC guidelines will be followed. These include the following:

- A) Planning the inventory (review of reporting instructions, identification of priority sources/sinks and priority GHGs, with in-depth focus on fertilizer production and brick kiln and/or rice parboiling industries and forestry sub-sectors;
- B) Using national emission coefficients wherever possible and also IPCC default methods and data where national coefficients/factors cannot be determined;
- C) Develop national capacity, through organizing training, for preparation of sector-specific emission inventory;

- D) Using the IPCC workbook and worksheets;
- E) Providing documentation; and
- F) Reporting finer level of details when available.

The Inventory will be prepared by using Tier-1, Tier-2 and Tier-3 Methodologies, as specified in the revised IPCC Guidelines. As both Tier-2 and Tier-3 methodologies are highly data intensive and the Bangladesh national data are generally scanty to support these methodologies, analyses will be restricted to IPCC Methodologies as applicable. Efforts will be made to incorporate Tier-2 and -3 in specific cases where more detailed data and statistics are available. Local emission coefficients/factors for agriculture sector will be assessed and updated. Default emission coefficients/factors will be used where applicable. If national values cited in literature could be gathered, efforts will be made to use those values. In addition, specially designed field studies will be arranged to physically check sink potentials (locally available growth rates for specific dominant tree species) and possibilities of emission reduction in at least one rural industrial activity (such as paddy parboiling). These will provide opportunities to blend bottom-up approach with top-down approach for inventory preparation.

Four major activity/sectors will be covered under the inventory, which include (a) energy (including biomass burning, transport sector, etc.), (b) IPPU (cement manufacturing, brick making industries, fertilizer, pulp and paper, rice parboiling, etc.), (c) AFOLU ruminant livestock, wet rice cultivation, grassland clearing/burning of agricultural residues, and livestock management, land-use change and forestry (change in forest cover and woody biomass, change in forest land-use etc.). (d) wastes & refuse management (fugitive methane from urban refuse, municipal wastewater treatment/management etc.), and all the major GHGs, excepting those included and reported under Montreal Protocol, will be covered in the inventory.

Calorific value of coal, breakdown of diesel into different uses, system loss of natural gas, activity data of biomass, CH₄ and N₂O emissions estimation will be provided as these were not elaborated in the GHG Inventory of the SNC.

In the SNC the estimation of GHGs from non-energy activities in different sectors suffers from major uncertainties. There appears to be little definitive information on the efficiency of industrial processes in say cement and nitrogenous fertilizer. Thus default values and average proportions had to be used. For example, the average fraction of lime in clinker has been taken to be 66.5%. If it becomes lower by 10% for certain supply sources, the carbon di-oxide emission would be that much lower. While for Bangladesh this does not make much of a difference for the period the estimates have been done (as there was only one cement factory, now it is several), it may make a significant difference now.

Uncertainties abound in case of agriculture. In rice cultivation, methane emission depends much on how long the fields are kept under inundated conditions. Long inundation period is no longer practiced because of continuously falling area under broadcast aman. But there is little on-the-ground knowledge of how much time the rice field in case of irrigated or rain fed rice are kept under water that may give rise to methane emission. More importantly, there is some controversy regarding the exact area under rice as the official statistical agency and the Extension Department of the Ministry of Agriculture do often differ in such estimates. So, detailed investigation should be done during preparation of the TNC GHG Inventory.

The main activities which will be undertaken during preparation of the GHG Inventory are given below:

Activities:

1. Mobilize a Core Inventory Team involving sector-specific experts. Develop a work programme for the GHG inventory preparation.
2. Familiarize with Revised 1996 IPCC Guidelines for Emission Inventory, the IPCC Good Practice Guidance (2000) and Uncertainty Management in National GHG Inventories, and the Good Practice Guidance on Land Use, Land-use Change and Forestry (2003).
3. Stock taking of the work done so far (ALGAS, INC, SNC and other relevant reports)

4. Organize training & workshop on methane emission factor and inventory preparation.
5. Since local emission factors differ significantly from the default emission factors, determination of local emission factors, based on locally determined data is important. So development of methane emission factor for cultivated rice fields (for Boro, Aus, Aman and other crops) and enteric fermentation of ruminant livestock (especially for cow, buffalo, goats, sheep etc.) will be undertaken.
6. Procurement of activity data for the years 2006-2010 for all the sectors: (a) Energy, Industrial Processes, Solvent and Other Product Use, Agriculture, Land-Use Change and Forestry and Waste Sector. Solvent may be included in the TNC, because paints and varnishes, refrigerants, etc. may have significant contribution.
7. Quality Control (QC) and Quality Assurance (QA) of activity data in each sector should be added.
8. In the SNC, major emphasis was on CO₂, CH₄ and N₂O. Other GHGs such as CO, NO_x, NMVOC, and refrigerants & propellants like HFC, CFC, PFC and SF₆ may be included to see their extent of emission in Bangladesh.
9. Carry out a Key source analysis.
10. Provide elaboration on calorific value of coal, breakdown of diesel into different uses, system loss of natural gas, activity data of biomass, and CH₄ and N₂O emissions estimation.
11. Projections of emission up to 2050 in all sectors may be undertaken using appropriate models.
12. Increased awareness among national institutions on methods of inventory preparation and needs for emission coefficients.
13. Provide training of stakeholders on procurement and archiving of activity data.
14. Development of Database Management system not only for GHGs but also for other gases.
15. Prepare the Draft National Emission Inventory Report and share with relevant agencies and experts for their comments and reviews.
16. Preparation of the National GHG Emission Inventory for the years 2006 through 2010 highlighting emission sources and sinks.
17. Finalize the Inventory report.

Outputs:

1. Increased awareness among national institutions on methods of inventory preparation and needs for emission coefficients.
2. Local emission factors for agriculture sector assessed and updated.
3. National GHG Emission Inventory for the years 2006 through 2010, highlighting emission sources and sinks including key sources analysis.
4. Development of Database Management system not only for GHGs but also for other gases.
5. Enhanced capacity to prepare future GHG Inventory.
6. National data collection capability enhanced and GHG Inventory management system designed.

8.3 Programmes containing measures to mitigate GHG emission

Although mitigation of GHGs is not a major priority for Bangladesh, which is a low-emitting country, however there are scopes where win-win mitigation options are available and the country should try to optimize its carbon intensity without compromising to its economic objectives and goals. Under the US Climate Change Country Studies Programme (USCCCSP) and the GEF-UNDP assisted Asia Least-cost Greenhouse Gas Abatement Strategy (ALGAS) initiative, a number of win-win mitigation options have been tossed, which were subsequently highlighted in the INC and SNC. A number of mitigation options have been elucidated in the more recent study which has adaptation co-benefit potential, which needs to be flagged. Moreover, there is a consensus that emphasis in the future should be on cleaner production and transfer of cleaner technologies as well as capacity building for energy efficient development.

Since late 1990s, a number of advancements have been made. Following the project formulation under the ALGAS Project, the GOB has imposed a ban on highly inefficient auto-tri-wheelers (locally called 'baby taxis') and facilitated import of four-stroke-engine operated auto-tri-wheelers. Moreover, a fuel switching was also facilitated and the entire fleet of such four-stroke tri-wheelers has been provided with Compressed Natural Gas (CNG) kits. Not only fuel efficiency has been increased significantly, which allowed the government to save valuable foreign currency, it also culminated into a rapid improvement in urban air quality by curbing emissions of un-burnt oxides of carbon and nitrogen. A large number of cars, vans and busses are now run on CNG fuel, which came as an autonomous development following the ALGAS Study. Meanwhile, at least two CDM projects have been initiated: (a) reducing emissions from urban refuse management by aerobic composting of bio-degradable parts of urban refuse, and (b) reducing emissions by providing independent solar home systems to as many as 30,000 dwellings across the country. It is to be noticed that, even before the implementation of the project, over 977,000 homes are now benefiting from solar home system due to a number of projects and initiatives.

Mitigation Strategies

Trend of emissions in each sub-sector will help decide the mitigation strategies in the concerned sub-sector. A rigorous trend analysis will be undertaken in TNC using data of 1990, 1994, 2001, 2005 and 2006-2010.

The TNC will identify GHG emission mitigation measures which deal with the following potential aspects in energy sector: (i) energy conservation (human behavioral aspects, demand side management, measures directly saving energy use, etc.), (ii) energy efficiency (choice of efficient technologies, choice of efficient fuel for similar energy services, etc.), and (iii) renewable energy sources and services (solar homes, solar village, etc.). It is to be of special interest to assess comparative advantage/disadvantage of using diesel operated captive power generators for short-time users as compared to grid electric system.

Transport sector mitigation measures will concentrate on the following: (i) move towards fuel-efficient technologies for similar transportation service (passenger kilometers), (ii) efficient fuel, and (iii) change in mode of transportation (e.g., shift in freight transportation from road to rail, promotion of mass transit system in urban transport mix, CNG buses instead of individual cars in common and high density routes, etc.).

Mitigation is also possible in agricultural sector, which may deal with (i) manure management, and (ii) biomass burning. Irrigated areas have increased significantly in recent years. Therefore, it will be interesting to check whether wet rice production is producing more methane gas than ever before. Indication of increasing trend is given in the SNC. Regional values were used to determine the local emission factors. Modeling will be undertaken for mitigation assessment. Permanent conversion of agricultural land into urban areas will have to be evaluated in terms of emission sources. In the LULUCF sector, one may consider the following mitigation opportunities: (i) afforestation programme, (ii) replantation of already denuded designated forest areas, (iii) roadside/embankment (line) forestry, and (iv) community afforestation (village/homestead, char lands, newly emerged coastal islands, coastal greenbelt, (v) REDD, etc.

In recent years, Bangladesh has helped UNFCCC to devise a new methodology of estimating fugitive methane gas from urban refuse management. Since efficient management is possible through aerobic composting of bio-degradable refuse in urban areas, an effort may be made to estimate potential/actual mitigation of GHGs from such activities.

Traditionally, mitigation actions have focused on reduction of industrial greenhouse gas emissions, but also include the practice of energy efficiency and the application of renewable energy in commercial and residential sectors. Such technology issues have generally been considered climate neutral, and the role of women in such climate change mitigation strategies has received little attention. But in reality, as climate change is partly the result of human behavior and affects all people, mitigation strategies must consider the gendered patterns of energy use in order to be effective. In this sense, the project will incorporate a gender perspective in the identification, description and preparation of mitigation actions when relevant.

In SNC, the mitigation exercise suffers from some incompleteness. First, mitigation has been analyzed with respect to a baseline scenario only for energy-related activities and even then only for a set of chosen measures. How these have been chosen remains unclear. No baseline and mitigation scenario over time for non-energy activities have been constructed. This could perhaps be done at least for emission from future domestic rice output.

There is another issue related to completeness. The mitigation measures give only partial effects of the measures, in relation to both energy/emission and their socio-economic impact. What may be attempted is the construction of energy and emission Input-Output tables and estimate the total emission reduction or increase due to mitigation measures throughout the economy from these tables. An economy-wide emission scenario gives better ideas of the effects of the mitigation measures by activity and indeed may suggest which measures would be more effective in aggregate (including both direct and indirect effects) than others.

Besides, Cost benefit analysis of identified mitigation measures will be done, barriers to mitigation will be determined and policies regarding how to overcome them will also be formulated.

Activities:

1. Review USCCCSP, ALGAS, INC, SNC and other available documents to evaluate mitigation from various activities/ sectors.
2. Based on the updated inventory data over the period 2006-2010 and recalculated emission data for the years 1990, 1994, 2001 and 2005, time series emissions to be found sub-sector-wise for determining correct mitigation strategy.
3. Appropriate models like LEAP, COMAP, IMAGE etc to be used for baseline and mitigation scenarios.
4. Consider generating more than one scenario baseline and other two with mitigation measures indifferent sectors.
5. Carrying out a cost analysis for all of them and calculate the GHG mitigation potential in Gg.
6. Collect information on the cost of mitigation measures, not only the cost for US\$/ton Co₂.
7. Current Government Policies to be analyzed and policies needed for implementation of recommended mitigation options to be suggested.
8. Barriers how to overcome them.
9. Measures to be suggested for formally strengthening of institutions for identifying and evaluating mitigation projects for implementation.

10. Mitigation measures for the LUCF sector and for CH₄ in the agriculture sector formulated.
11. Mitigations by renewable energy technologies be emphasized and elaborated.
12. Clean coal technologies to be explained, identified for adoption.
13. Besides renewable energy, forestry and waste are potential sectors for mitigation option; these sectors to be elaborated.
14. Collect information on projects that are being implemented or proposed for Implementation.
15. At least two specific projects from each sector to be selected and complete financial analysis to be given.
16. Explore measures in other sector besides the energy sector.
17. Baseline and mitigation scenario over time for non-energy activities have to be constructed.
18. Energy and emission Input-Output tables may be constructed and the total emission reduction or increase due to mitigation measures throughout the economy from these tables should be estimated.
19. Formulate mitigation strategies that consider the gendered patterns of energy use in order to be effective.
20. Share the Draft National Mitigation Strategy with relevant stakeholders in an informed roundtable.
21. Incorporate the findings of the informed roundtable and finalize the Mitigation Document.

Outputs:

1. Based on the updated inventory data over the period 2006-2010 and recalculated emission data for the years 1990, 1994, 2001 and 2005, sub-sector wise mitigation strategy developed.
2. Current Government Policies analyzed and policies needed for implementation of recommended mitigation options suggested.
3. Mitigation measures for the LUCF sector and for CH₄ in the agriculture sector formulated.
4. Mitigation measures in the energy sector developed.
6. Development of Baseline and mitigation scenarios for priority sectors completed.
7. Draft National Mitigation Strategy with relevant stakeholders shared and finalized.

8.4 Studies on vulnerability and impacts and programmes containing measures to facilitate adequate adaptation to climate change

Bangladesh experiences tropical cyclones, storm surges, floods, riverbank erosion, droughts and many other natural disasters. The risk of climate change is accelerating the duration, magnitude and frequency of natural hazards and making communities more vulnerable. Any specific location may experience only one or more than one hazard (multi hazard). Floods and local seasonal storms are annual events, which cause loss of lives and properties. Floods, riverbank

erosion and cyclones are the prominent hazards in the country. In fact, cyclones cause the most damage in terms of death tolls followed by riverbank erosion in terms causing impoverishment and landlessness. In an average year, approximately 25 percent of the country is inundated by flooding. The huge sediment load brought by the three Himalayan river coupled with a negligible flow gradient add to drainage congestion problems and worsen the extent of flooding. Societal exposure to such risks is further enhanced by very high population density.

Since Bangladesh is a disaster prone country and vulnerable to climate change impacts, many government and non-government agencies are taking initiatives towards adaptation to natural disaster and climate change impacts. Often those initiatives are funded by Government of Bangladesh or development partners. Nevertheless, there is no comprehensive inventory of those initiatives or programmes, which is essential to know who is undertaking which projects in which areas or aspects. This type of inventory will be very helpful to identify new adaptations practices and gaps that need to be filled further depending on the needs based on vulnerability and locality. This will also help to utilize 'Climate Change Trust Fund' and other funds in more effective manner.

Natural disasters cause an immense effect on different sectors like agriculture, fisheries, livestock, forest and ecosystem, infrastructure etc. Climate change will further aggravate those effects. The vulnerability of these sectors is interdependent and ultimately impacts the livelihoods. To understand cumulative impact of climate change on different sectors and dependant livelihood, linkage between livelihood development and cross sectoral issues of climate change adaptation practices should be assessed. This will provide knowledge how the climate change impacts and adaptation practices can support the livelihood development in better way.

In the SNC vulnerability analysis has been done. Yet the question as to what would happen to poverty, employment and gendered impact should be answered and elaborated in the TNC.

The Bangladesh climate change adaptation strategy aims at ensuring the development targets related to food security, water security and livelihood security, and other socio economic aspects. However, it must also include climate resilient infrastructure development for promoting energy and water efficient agricultural production. Adaptation strategy to climate change should also ensure safeguarding of the ecosystem by protecting forestry and biodiversity and adopting low carbon development.

The GoB has shown its firm commitment to implement adaptation by pronouncing the Bangladesh Climate Change Strategy and Action Plan (BCCSAP). Meanwhile, the GoB has also revised its NAPA and initiated the implementation of the first NAPA project. The country has exhibited many innovations towards community based adaptation (CBA) and climate related disaster risk reduction, which have become sources of inspiration to many Least Developed Countries (LDCs).

Many projects are being implemented by GOB and NGOs in different areas of Bangladesh in the name of climate change adaptations. It is not well known whether funds of the projects are being properly utilized as well as vulnerable people are getting benefit from those projects. Often, performance of those projects is evaluated by the implementing agencies themselves. An independent socio-economic evaluation of the performance of those climate change adaptation projects is very much crucial for development and implementation of adaptation projects in future.

Government adaptation policies and roles should be reviewed based on national level policies of government through different instrument such as circular, interaction, guidelines help local government institutions practice climate change adaptation in the root levels. On the other hand local people and community usually empirically adopt adaptation practices to cope with climate change impacts. Government policies and rules vis-a-vis indigenous practices should be reviewed.

The people living in the coastal belt are facing severe cyclones and storm surges almost every year and every year they are losing their lives, property, crops, livestock and all their belongings. If such events continue to happen over and over again they will be forced to relocate their settlements from coastal area to other safer parts of the country creating tremendous pressure on national economy.

Based on the existing environment, land pattern, geomorphology and configuration of the area and requirements, the activities in the coastal zone have to be judiciously planned and executed with appropriate control and regulations. Integrated management programme of the coastal area can be taken for coastal defense, proper land use, planning for adaptation for the future natural hazards and for attaining sustainable development. The integrated coastal zone management incorporated modern principles of planning and resource management, extensive information base and interdisciplinary processes. Geomorphic Information System (GIS), for integrating various thematic information derived from satellite data with other collateral data such as socio-economic and cultural data, has established its immense capability in arriving at an integrated coastal zone management practice. Reliable data from geological mapping based on conventional and satellite remote sensing and field checking can play a significant role for development activities.

So we should take proper initiatives to ensure protection and development of the coastal area by proper planning and implementation of the projects to be taken for the development of the coastal area, monitoring long term trends of dynamic changes including rate of subsidence, accretion, regression of the coastal areas which should be taken into consideration for any type of development activities, formulating proper criteria for the location of industries, educational institutions, cyclone shelter cum school, mosque and other physical and economic infrastructures.

The geomorphology, lithological characteristics of the deltaic plain and distribution of the rivers, their tributaries and distributaries have great influence over the coastal area including on marine erosion, salinity intrusion and on other man made infrastructure facilities. So these characteristics should be kept in mind to initiate and operate any type of development activities in the area.

Geological mapping of the south western coastal region have already been completed by the Geological Survey of Bangladesh. Mapping of the other coastal region are also going on. Information about the geomorphic features, geological and engineering characteristics of the coastal plain sediments can be derived from the geological map and reports of the Geological Survey of Bangladesh which can be used for the development planning and coastal defense activities. The drought prone area especially the Barind Tract should also be studied in detail.

A country which aspires to be a middle-income nation in 10 years' time and more or less eradicate poverty by that time must consider in all seriousness the possible impact that climate change may have on such goals.

To understand these issues, one could construct at least a macroeconomic model of climate change impact where the future macro variables could be estimated based on types of shock including those of mitigation and adaptation measures. This would have perhaps also given some idea of the deadweight loss due to climate change i.e., the loss that cannot be recouped under any measure. It may be argued that such a deadweight loss must be compensated by those who have historical responsibility for global warming and climate change.

Even where the vulnerability has been estimated or adaptation measures suggested, these remain incomplete in the sense of the needs for financing and the sources of such finance as well as the types of technology needs as well as their sources. Without such estimates of financing need and the need of the specific technology, actual adaptation may become quite difficult.

In Bangladesh the Gender issue is a very important aspect in the environmental management and climate change mitigation and adaptation. The women play important role in house-hold economy and livelihood surrounding the agriculture sector like seed preservation, post harvest activities, food security, house-hold poultry and livestock rearing, vegetables and fruit growing and also as day laborers. They are most vulnerable to disasters like floods, erosions and tropical cyclones which affect their lives and livelihoods. As this project deals with the mitigation and adaptation to climate change the outputs of the project will help the women along with men and children in mitigating the climate change induced disasters through fruitful adaptation of the worst impacts on agriculture,

water resources, health and socio-economic sector of Bangladesh. **So, women will also be engaged in undertaking the activities of vulnerability and adaptation assessments of this project.**

Activities:

1. Estimate damages and losses caused by past weather events like floods, cyclones, storm surges, river bank erosion, droughts and water logging etc.
2. Correlation of diseases with weather phenomena and weather patterns.
3. Identify greater effect of cyclones, storm surges- Effects on low relief coastal areas; Populations on the coastal margin, hotels, tourist developments.
4. Conduct vulnerability study in terms of impact on growth, poverty reduction, livelihood, employment and women.
5. Conduct detailed studies on climate change impacts on water resources, agriculture, biodiversity, fisheries and urban areas.
6. Study of present field level adaptation practices for coping and enhancing resilience of local people, involved organizations (government and NGOs), and implementing area.
7. Bangladesh Government's Trust fund and other climate change organizations funded projects are needed to be extensively studied.
8. Review government policies and roles for the field level adaptation practices.
9. Asses cross sectoral issues and linkage between livelihoods and disasters.
10. Conduct economic evaluation of implemented adaptation projects.
11. Conduct detailed micro-level analyses of climate variability for different months of the year and their impacts on various sectors especially on water resources and agriculture.
12. The process of erosion and accretion in the coastal zone needs to be accurately determined.
13. To draw up a list of the barriers to the implementation of adaptation measures in communities or regions including political barriers, those of social organization, traditions, public and local policies.
14. Assess current institutional weaknesses including those in the policy regime, which act as barriers of mainstreaming adaptation, and devise mechanisms to overcome such identified barriers.
15. Construct at least a macroeconomic model of climate change impact where the future macro variables could be estimated based on types of shock including those of mitigation and adaptation measures.
16. Conduct calculation of adaptation cost.
17. Estimate financing need and the need of the specific technology for actual adaptation.

18. Revision of national strategy in the water sector.
19. Conduct investigation on annual rainfall, rainfall distribution pattern and evapo-transpiration loss in BarindTract.
20. Establishment of Long-term water supply scenario in the agricultural sector.
21. Measures to motivate studies on adaptation and barrier removal mechanisms in mainstreaming adaptation to climate change.

Outputs:

1. Information on key climate vulnerable sectors updated.
2. Improved scientific, technical and institutional capabilities for V&A assessments.
3. Establishment of long-term water supply analysis in the agricultural sector.
4. Improved planning of the most drought prone area of the country especially on the Barind tract.
5. Improved planning of urban and coastal areas considering the effects of climate changes (e.g. rise in sea level, storm surges, floods, etc.).
6. Programmes/measures to motivate studies on adaptation and barrier removal mechanisms in mainstreaming adaptation to climate change formulated.

8.5 Other information considered relevant towards achieving the objective of the UNFCCC & Constraints and Gaps; Related Financial, Technical, & Capacity Needs

This component of the TNC will provide information on past and ongoing initiatives to integrate climate change in the national planning process, status of activities related to technology transfer, overview of climate change research and systematic observation, information on research programmes related to impact and adaptation, initiatives on climate change education, training and public awareness and finally the status of information and networking. Available documents and information from different public, private, local and international sources will be used in preparing this chapter of the TNC to enable the country towards achieving the objectives of the UNFCCC.

Activities:

1. Inclusion of climate change issues into country's national planning priorities, in social, economic and environmental policies, and in development activities.
2. Identify needs for research to adapt to and mitigate climate change and arrangement for sufficient training and education programmes for raising awareness among general public, professionals, member of non-governmental organizations, policy makers and students on climate change issues.
3. Undertake necessary initiatives for enough funds from the donor agencies for research to adapt to and mitigate climate change and systematic observation.

4. Conduct technology needs assessments to identify the institutional arrangements for the transfer of technologies, removing the barriers and to facilitate appropriate technologies to the stakeholders.
5. Provide information on capacity building efforts and exchange mechanisms.
6. Provide information on the effects and impacts of various climate change related intervention and policies by type of sector or activity.

Outputs:

1. Increased integration of climate change issues into relevant social, economic and national environmental policies.
2. Increased awareness on climate change issues among general people.
3. Capacity building efforts enhanced and information exchange mechanisms among public and NGOs strengthened.
4. Technology, financial and capacity needs for mitigation and adaptation identified.

Constraints and Gaps; Related Financial, Technical, & Capacity Needs

This part will include a description on constraints and gaps, and related financial, technical and capacity needs, as well as proposed and /or implemented activities for overcoming the gaps and constraints, associated with the implementation of activities, measures and programmes envisaged under the convention, and with the preparation and improvement of Third National Communication.

Activities:

1. Constraints, gaps and needs, and activities for overcoming gaps, etc.
2. Financial resources & technical support for preparing communications provided by various sources.
3. Financial resources and technical support provided by various sources.
4. Projects proposed for financing or in preparation for arranging support.
5. Opportunities, barriers for implementation of adaptation measures.
6. Country specific technology needs and assistance received.

Outputs:

1. Constraints, gaps and needs, and activities for overcoming gaps, etc assessed.
2. Information on financial resources and technical support provided by the Government of Bangladesh and by the GEF, Annex II Parties or bilateral and multilateral institutions, for activities related to climate change documented.

3. A list of projects proposed for financing prepared.

4. Information on barriers to the implementation of adaptation measures collected and assessed.

5. Information on other relevant needs and/or areas for capacity building collected and analyzed.

9. Annexes

Risk Analysis. The Risk Log is given below:

RISK LOG

Project Title: Bangladesh: Third National Communication to the UNFCCC					Award ID: 00074288			Date:	
#	Description	Date Identified	Type	Impact & Probability	Countermeasures/ Mngt. response	Owner	Submitted/updated by	Last Update	Status
1	Non availability and incomplete activity data in all sectors, especially in the agriculture and forest sector can create problem.	May, 2010	Institutional arrangements	Non-availability/ incomplete availability of activity data in all sectors may create problem to prepare a quality GHG Inventory. P= 4 I= 4	Experienced additional experts were involved to fill the data gaps/ Qualified and capable technical personnel will be assigned to collect and provide activity data from all the sectors.	Team Leader of the GHG Inventory/Project Manager	Project Manager/ Programme Manager, UNDP	Not recorded in the Atlas yet	Project not started yet
2	Lack of detailed data for LUCF and CH4 for agriculture sector.	July,2010	Institutional arrangements	There will be incompleteness in estimating the total emission reduction or increase due to mitigation measures. P= 3 I= 3	Efforts will be made to procure detailed data from LUCF and agriculture sector and initiatives will be undertaken to construct baseline and mitigation scenario over time for non-energy activities.	Team Leader of the mitigation analysis/Project Manager	Project Manager/ Programme Manager, UNDP	Will be recorded soon	Project not started yet
3	(a)Lack of required data and experienced experts for micro level analyses of climate variability and their impacts	May, 2012	Institutional/ Execution Capacity	Appropriate measures for adaptation may not be formulated. P=3 I= 2	Using appropriate methodology/software and adequate data detailed micro-level analyses of climate variability for different months of the year and their impacts on various sectors especially on water resources and agriculture will be done.	Team Leader of V&A assessments/Project Manager	Project Manager/ Programme Manager, UNDP	Will be recorded soon	Project not started yet

	(b)The vulnerability in terms of impacts on growth, poverty reduction, livelihood, employment and women is more or less uncertain.	May, 2012	Institutional/Execution Capacity	Without estimating vulnerability or suggesting adaptation measures and estimating financial need and the need of the specific technology, actual adaptation may become quite difficult. P= 3 I=3	At least a macroeconomic model of climate change impact will be construct where the future macro variables could be estimated based on types of shock including those of mitigation and adaptation measures.	Team Leader of V&A assessments/Project Manager	Project Manager/Programme Manager, UNDP	Not recorded in the Atlas yet	Project not started yet
	(c)Improving resilience to climate change	December, 2012	Institutional arrangements	If the programmes containing measures to efficiently adapt to the adverse impacts of climate change are not disseminated to all govt. and non-government officials and related stakeholders, resilience to climate change will not be improved. P= 4 I=3	A number of seminars on V&A assessments involving all the related stakeholders including general people will be organized in different parts of the country to improve resilience to climate change.	Team Leader of V&A assessments/National Project Director and Project Manager	Project Manager/Programme Manager, UNDP	Not recorded in the Atlas yet	Project not started yet
4	Information on financial, technical & capacity needs	April, 2013	Institutional arrangements	It might not be possible to get all the information on financial resources and technical support received from various sources. P= 4 I=4	Efficient data collectors will be engaged to collect data and information from the concerned government and non-govt. organizations and if necessary MoEF and ERD's cooperation will be sought to solve the problem	Team Leader of V&A assessments/National Project Director and Project Manager	Project Manager/Programme Manager, UNDP	Not recorded in the Atlas yet	Project not started yet

Agreements: Not Applicable

Terms of Reference:

All the activities of the TNC project will be supervised, monitored and evaluated by the members of the National Steering Committee (NSC) and Core Sectoral Working Groups (CSWP).

It may be mentioned that efforts will be undertaken to maintain gender balance in engaging the core national team, National Steering committee and other Core Sectoral Working Groups of the Third National Communication.

The terms of references of the NSC, CSWG and project personnel are given below:

National Steering Committee

The major responsibilities of the National Steering Committee (NSC) are to:

1. Lay down policies defining the functions, responsibilities and delegation of powers for the Core Study (Project) Team and the Working Groups.
2. Facilitate coordination of project activities across institutions, data sharing and dissemination of information.
3. Facilitate inputs from relevant GOB agencies to the Core Study Team.
4. Ensure that comments received from the Peer Reviewers are accommodated towards the improvement of the project outcomes.
5. Review and approve the project outcomes in accordance with specific TORs and Annual Work Plan.
6. Provide guidance on the issues brought to its notice by the National Project Director, UNDP Project Assurance and other cooperating institutions.
7. Provide general advices regarding efficient and timely execution of the project.

A composition of the NSC would be:

1. Secretary, Ministry of Environment and Forests, -Convener
2. Director General& NPD, TNC, Department of Environment, -Member Secretary
3. Joint Secretary (Dev.), Ministry of Environment and Forests, -Member
4. Representative, Energy and Mineral Resources Division, -Member
5. Representative, Ministry of Industries, -Member
6. Representative, Ministry of Transport, -Member
7. Representative, Ministry of Land, -Member
8. Ministry of Science and Communication Technology, - Member
9. Deputy Secretary (Env.), Ministry of Environment and Forests, - Member
10. Representative, Planning Commission, - Member
11. Representative, IMED, - Member
12. Director (Technical - 1), Department of Environment, - Member
13. Representative, Water Resources Planning Org. -Member
14. Representative, Department of Forests, - Member
15. Representative, Department of Livestock, -Member
16. Representative, Bangladesh Text book Board, -Member
17. Representative, Secondary and Higher Secondary Education Board, -Member
18. Representative, Dhaka University, -Member
19. Representative, Jahangir Nagar University, -Member
20. Representative, Bangladesh University of Engineering and Technology, -Member
21. Anwar Iqbal, Director, Bangladesh Agriculture Research Council, -Member
22. Representative, Bangladesh Meteorological Department, - Member
23. Representative, Bangladesh Bureau of Statistics, -Member
24. Representative, Bangladesh Power Development Board, -Member
25. Dr. M. Asaduzzaman, Research Director, BIDS, - Member

26. Dr. Sarwat Chowdhury, Climate Change Specialist, -UNDP Bangladesh- Member
27. Dr. DewanQuadir, Former Head, SMRC, -Member
28. Mr. MirzaShawkat Ali, Deputy Director, DoE , -Member
29. Mr. Ziaul Haque, Deputy Director, DoE, -Member
30. Sheikh Moazzem Hossain, Project Manager, SNC

National Project Director

The National Project Director will be appointed according to the implementation Guidelines for the UNDP-supported projects in Bangladesh and will be accountable to the National Steering Committee, headed by Secretary, MOEF for day to day activities. The NPD (Director General, (DoE) is responsible for the day-to-day management of the project.

Main responsibilities of the National Project Director include the following:

- Manage day-to-day issues and make decisions for the project.
- Overseeing project implementation with systems and indicators put in place for smooth management of all project related activities and subcontracts and financial disbursements.
- Overseeing project implementation to ensure that the project achieves its objectives and deliver outputs as designed.
- Preparing detailed work plans for each sectoral core groups and identifying resource requirements, collaborating agencies/personnel, responsibilities, task outlines, and performance evaluation criteria.
- Resolve Impasses and conflicts among stakeholders at the project level.
- Initiate remedial measures to remove impediments in the progress of project activities that were not envisaged earlier.
- Ensuring project outputs in accordance with the timeline/work plan.

Scope of the assignment

The NPD will be responsible in managing the project on a day-to-day basis and is accountable to the executing agency for the planning, management, quality, timeliness and effectiveness of the activities carried out, as well as for the use of funds. The PM/NPC will ensure the regular monitoring and feedback from activities already under implementation. The NPC will work closely with the National Executing Agency, the Project Steering Committee, UNFCCC focal point, UNDP Programme Officer for Environment and the National Climate Change Committee.

National Project Coordinator/Project Manager

The Project Manager of the SNC project may be assigned to perform the tasks of the NPC/Project Manager of the Third National Communication.

Duties and Responsibilities

The Project Manager/National Project Coordinator (NPC) will have the following duties:

- Prepare a detailed work plan and budget;
- Prepare and submit to UNDP and the Executing Agency, regular progress and financial reports;
- Coordinate and oversee the preparation of the outputs of the TNC;
- Ensure effective communication and adequate information flow with the relevant authorities, institutions and ministries;
- Ensure appropriate stakeholder participation in the project implementation and coordinate the work of all stakeholders and in consultation with the UNDP office;
- Maintain and establish additional links with other related national and international programs and National Projects;
- Prepare the Terms of Reference for consultants and experts and ensure their timely hiring;
- Guide the work of consultants and experts and oversee compliance with agreed work plan and deliverables;
- Identify training needs at contracted national institutions and for other project stakeholders;
- Organize and coordinate the procurement of services and goods under the project;
- Coordinate, manage and monitor the implementation of the Project assignments undertaken by the working groups, local experts; consultants, sub-contractors and co-operating partners;
- Coordinate the experts and consultants in preparing and finalizing the TNC document;
- Assume overall responsibility for the proper handling of logistics related to all project workshops and events;

- Manage the Project finance, oversee overall resource allocation and where relevant submit proposals for budget revisions with the help of the UNDP officer;
- Undertake any other actions related to the Project as requested by the Executing Agency or by UNDP.

TNC Core Sectoral Work Groups (CSWG)

The Core Sectoral Working Groups (CSWG) will be responsible for providing guidance to the technical personnel/agencies those having specific responsibilities for carrying out activities as outlines under each stream. These CSWG will be multi-disciplinary, represented by national level experts and institutions (including government and non-government institutions and academics) having specific relevance for each of the activity stream as outlined in the proposal. They will sit at least once in each quarter and oversee the progress of the activities. In each of these CSWGs, one Convener will be elected and s/he will draw attention of the National Project Director in case an impasse/irregularity is noticed. They will also help the NPD to identify relevant Peer Reviewers, who will be given responsibility to ensure quality of outputs in written form.

A list (non-exhaustive) of Agencies, which will have representatives in various CSWGs is provided below:

- Bangladesh Agriculture Research Council
- Bangladesh Bureau of Statistics
- Bangladesh Center for Advanced Studies
- Bangladesh Forest Research Institute
- Bangladesh Inland Water Transport Authority
- Bangladesh Institute for development Studies
- Bangladesh Livestock Research Institute
- Bangladesh Petroleum Corporation
- Bangladesh Power Development Board
- Bangladesh Rice Research Institute
- Bangladesh Road Transport Authority
- Bangladesh Rural Development Board
- Bangladesh University of Engineering and Technology
- Bangladesh UnnayanParishad
- Bangladesh Water Development Board
- Centre for Environmental Geographic Information Services
- Centre for Global Change
- Conservation of Natural Resources
- Department of Environment
- Department of Forest
- Department of Livestock
- Department of Meteorology
- Department of Public Health Engineering
- Dhaka/ University
- Disaster Management Bureau
- Institute for Water Modeling
- Institute of Water and Flood Management
- Jahangirnagar University
- Khulna University
- Local Government Engineering Department
- Ministry of Science and Technology
- Planning Commission
- SylhetShahjalal University of Science and Technology
- The Power Cell
- Water Resources Planning Organization

Project Support Team

The Project Support Team (PST) will facilitate the implementation of project activities, especially those sub-contracted to various institutions/agencies for each stream-based activity. The PST members will be appointed by the UNDP following their

Rules and Regulations and will be accountable to the NPD. The Project Support Team will operate within the Department of Environment (DOE) in close cooperation with the Climate Change Cell. It will be headed by the Project Manager/National Project Coordinator, who will ensure smooth functioning of the activities, liaise with relevant institutional heads responsible for Stream-based activities on behalf of the NPD and help to resolve conflicts and overcome impasse. The PST will develop the sub-contracting TORs with specific tasks and detailed indicator-based outputs. The PST will also liaise with the Peer Reviewers, on behalf of the NPD, to ensure quality of the products. They will also contribute technically on undertaking research in relation to the cross-cutting stream.

On behalf of the National Project Director, it will facilitate organization of various national/regional Stakeholder consultations, workshops, training programmes and meetings of various CSWGs/ Committees. The PST will help organize the inception workshop and the concluding National Workshop. The PST will ensure quality of reporting, bring out dissemination/communication materials, represent the project in other national level activities/efforts etc. In brief, the PST will facilitate to institutionalize the TNC activities within the DOE system.

Generic Broad TOR for PST Members

- Provide assistance and support to the National Project Director as well as to the Project Manager/NPC for smooth implementation of the project activities;
- Liaise with CSWG Members to ensure time-bound delivery of project outputs;
- Assist the National Project Director in planning, organizing and conducting of workshops/stakeholder consultations and training sessions;
- Prepare work-plan for each stream;
- Finalize technical reports with support from the responsible CSWGs;
- Undertake research/studies on various topics under the cross-cutting stream; and
- Help the National Project Director and PM/NPC towards preparing Quarterly and Annual Reports.

Terms of References of Project Personnel

Project Manager/ National Project Coordinator (NPC)

Background: NPC will be responsible for implementation of the project, including mobilization of all project inputs, supervision of project staff, consultants and sub-contractors. The PM shall liaise with the government, UNDP, and all stakeholders involved in the project.

Duties and responsibilities: Under the overall supervision of the National Project Director and UNDP management, the incumbent will be responsible for:

1. Overall management of the project.
2. Supervise and coordinate the production of project outputs as per the project document;
3. Ensure the technical coordination of the project and the work related to legal and institutional aspects;
4. Mobilize all project inputs in accordance with UNDP procedures for nationally executed projects;
5. Finalize the ToR for the consultants and subcontractors;
6. Coordinate the recruitment and selection of project personnel;
7. Supervise and coordinate the work of all project staff, consultants and sub-contractors;
8. Work closely with UNDP Management and project partners to closely coordinate all the actors involved with achieving Project Outcomes, Outputs and Activities;
9. Supervise the work of all members of the PT;
10. Prepare and revise project work and financial plans, as required Government and UNDP;
11. Manage procurement of goods and services under UNDP guidelines and oversight of contracts;
12. Ensure proper management of funds consistent with UNDP requirements, and budget planning and control;

13. Establish project monitoring and reporting;
14. Arrange for audit of all project accounts for each fiscal year;
15. Prepare and ensure timely submission of quarterly financial consolidated reports-FACE, quarterly consolidated progress reports, annual progress report, mid-term reports, and other reports as may be required by UNDP;
16. Prepare and Ensure monthly RIS Reporting to UNDP
17. Disseminate project reports and respond to queries from concerned stakeholders;
18. Report progress of project to the Steering Committee.
19. Oversee the exchange and sharing of experiences and lessons learned with relevant projects nationally and internationally.
20. Preparing a detailed annual work plan for the project
21. Undertaking any other activities that may be assigned by the Steering Committee.
22. Ensure timely delivery of outputs from national experts
23. Ensure participation of UNDP Managers meeting;
24. Maintain close contact among UNDP, MOEF, DOE and national experts and be able to detect and plan for any potential delay in output delivery to ensure timely submission of a high quality TNC for Bangladesh

Qualification and experience

- Master's Degree in either Natural Science or Social Science or equivalent in environment management, or environment related field, profession, with at least 15 years professional experience at senior level;
- Candidate having M.S degree from foreign Universities will be given preference.
- Proven extensive experience and technical ability to manage a large project and a good technical knowledge in the fields related to programmes containing measures to mitigate climate change & to facilitate adaptation to climate change, National Greenhouse Gas inventories, Second National Communication and the objective of the UNFCCC;
- Effective interpersonal and negotiation skills proven through successful interactions with all levels of project stakeholder groups, including senior government officials, business executives, farmers and communities;
- Ability to effectively coordinate a complex, multi-stakeholder project;
- Ability to lead, manage and motivate teams of international and local consultants to achieve results;
- Good capacities for strategic thinking and planning.
- Excellent communication skills;
- Knowledge of UNDP project implementation procedures, including procurement, disbursements, and reporting and monitoring is preferable.

Duration of the assignment: Project implementation period-36 months

Finance Assistant

Duties and responsibilities: Under the overall supervision of the Project Manager (NPC) and UNDP management, the incumbent will be responsible for assisting the project team to implement the project activities and financial matters.

Key deliverables

- Prepare Project Budget and take initiative for revision
- Assist to prepare Annual Work Plan.
- Forecast for next quarterly expenses.
- Forecast quarterly cash budget and ensure cash availability
- Submit fund request to UNDP and follow up for transfer of fund.
- Checking & verifying the invoice for payment.
- Ensure the accuracy of bill amount & prepare the voucher against the bill.
- Maintain Petty cash & replenish time to time.

- Handling Project advance & adjust the bill voucher after completion of the event.
- Keep record of all transaction in Bank ledger.
- Prepare Bank reconciliation.
- Deduction of VAT & TAX at source as per Govt. rule and deposit to Bank.
- Maintain financial file.
- Prepare Monthly, Quarterly report & any kind of report for GoB& FACE report for UNDP.
- Analysis the expenditure & burning rate of budget.
- Ensure logistic support to organize Seminar/Workshop/ Meeting&event management.
- Petty purchase through NEX manual.

Measurable output

- Budget expenditure statement.
- Recording in Bank Register.
- Acknowledgement of Bank balance to Cash book.
- Availability of cash position.
- Compliance with NEX & GoB rules.
- Able to meet the dead line of submission.
- Ensure all payment in due time.
- Ensure Client satisfaction.
- Compliance with GoB rules.
- Smoothly operate the project activities.
- Achieving the financial objectives along with project objectives.
- Reporting the project financial progress.
- Contact with suppliers.
- Assist to prepare effective plan to achieve the project objective.
- Drafting correspondence on financial part.
- Initiate file notes for government offices.
- Venue confirmation for workshop/Seminar/meeting
- Prepare registration sheet for Meeting/Seminar/Workshop & ensure the registration.
- Ensure food, equipment & other for Meeting/Seminar/Workshop.
- Take advance initiative for all kind of logistic support for Meeting/Seminar/Workshop.

Performance indicators

- Fund availability for project activities.
- Well managed Financial filing system.
- Computer based Different Financial statements.
- Updated Bank balance.
- Updated Voucher file.
- Timely submission.
- Well organized workshops.

Skills and competencies

- Knowledge on Financial management and skills to maintain the Register & Ledger
- Understanding and knowledge of contract of each personnel.
- Financial skill.
- Knowledge on how to maintain vehicle log book.
- Knowledge on GoB rules and regulation.
- Computer literacy.

- Capable to work under pressure.
- Knowledge on proper filing system.
- Experienced to organize several events and activities as well as provide logistics support like venue booking, registration booth maintaining, travel arrangement, material procurement etc.
- Good communication skill.
- Liaison with concern person & others.

Educational qualification:

Master’s in Science/ Commerce discipline

Experiences:

- 5 Years relevant practical experience with any foreign aided project / international development organization / reputed multinational organization;
- Proficient in computerized accounting to produce several financial reports and to maintain financial correspondence independently;
- Knowledge in general administration, procurement, taxes, VAT and budgeting is essential; and registration both maintaining, travel arrangement, material procurement etc.

Duration of the assignment: -30 months

Programme Assistant

Duties and responsibilities: The Programme Assistant will work under the supervision of the Project Manager and National project Director. The programme Assistant will be responsible for assisting the project team to implement the project activities and events.

Key deliverables

- Maintenance of inventory (Expendable and Non-expendable item)
- Official support
- Official file management and record keeping
- Maintenance of personnel leave format
- Logistic support to event management
- Procurement
- Inventory & expendable stock management (Book registered)
- Goods receive
- Purchase stationeries and the petty materials for the project office
- E-filing
- Contact with suppliers
- Circulate all sorts of meeting notice, working paper of the meeting, minutes of the meeting, official letters.
- Drafting all correspondence like letters, etc., & sending e-mails as required.
- Initiate file notes for government offices
- Prepare notice of the Steering Committee Meeting, and Core Sectoral Working Group
- Take note from the meetings and prepare minutes
- Leave record monitoring (Computer based file based)
- Venue confirmation for workshop/meeting
- Prepare invitation card of the workshop/seminar and circulate as well
- Prepare registration sheet
- Prepare evaluation sheet
- Prepare training materials sheet

- Maintain registration booth
- Take picture from the event

Skills and competencies

- Knowledge on inventory management and skills to maintain the register.
- Administrative skill
- Knowledge on how to maintain vehicle log book
- Computer literacy
- Office management skill
- Knowledge on proper filing system
- Experienced to organize several events and activities as well as provide logistics support like venue booking, registration booth maintaining, travel arrangement, material procurement etc.
- Good communication skill

PERSONAL AND ATTITUDINAL REQUIREMENTS

- Good communication and interpersonal skills and experience in working effectively in a multicultural environment.
- Teamwork: ability to establish and maintain effective working relations as a team member, in a multi-cultural, multi-ethnic environment with sensitivity and respect for diversity.
- Communications: excellent interpersonal and communication skills.
- Excellent writing skills.

Educational qualification

Masters Degree from a recognized University in Science/Commerce discipline

Required Experience

- 5 years proven experience in project management / related field
- Computer literacy in MS Word, MS Excel and Power Point is necessary
- Ability to work under pressure and to deadlines, coordinate and monitor effectively in organizing occasional project events.
- Prior experience in working with government departments and international organizations
- Ability to prepare notes and minutes on meetings, workshops etc. in a clear and concise manner in English and in Bengali
- Experienced candidates in the relevant field will be preferred.

Duration of the assignment: 30 months

Capacity Assessment: *Results of capacity assessments of Implementing Partner (including HACT Micro Assessment)*

The Implementing Partner (Ministry of Environment & Forests (MoEF) and the Department of Environment) has implemented a number of climate change related projects including INC and SNC and other projects.

**STANDARD LETTER OF AGREEMENT BETWEEN UNDP AND THE GOVERNMENT OF
BANGLADESH (DEPARTMENT OF ENVIRONMENT, MINISTRY OF ENVIRONMENT AND FORESTS
(MOEF) FOR THE PROVISION OF SUPPORT SERVICES**

Under project “Third National Communication to the UNFCCC)

1. Reference is made to consultations between officials of the Government of *DEPARTMENT OF ENVIRONMENT, MINISTRY OF ENVIRONMENT AND FORESTS (MOEF)* (hereinafter referred to as “the Government”) and officials of UNDP in Bangladesh with respect to the provision of support services by the UNDP country office for nationally managed programmes and projects. 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 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 payment. 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 programme/project:

- (a) Identification and/or recruitment of project and programme personnel;
- (b) Identification and facilitation of training activities;
- (c) Procurement of goods and services;
- (d) Financial support services

4. The procurement of goods and services and the recruitment of project and programme 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 programme or project, the annex to the

programme support document or project document is revised with the mutual agreement of the UNDP resident representative and the designated institution.

5. The relevant provisions of the UNDP Standard Basic Assistance Agreement with the Government of Bangladesh dated 25 November 1986 (the “SBAA”), 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.

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 SBAA.

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
[Name; Pauline Tamesis]
[Title: Country Director]

For the Government
[Name/title: Director General]
Department of Environment (DoE)
Ministry of Environment & Forests]
[Date]-----

Attachment

DESCRIPTION OF UNDP COUNTRY OFFICE SUPPORT SERVICES

1. Reference is made to consultations between DEPARTMENT OF ENVIORNMENT, MINISTRY OF ENVIORNMENT AND FORESTS (MOEF), the institution designated by the Government of Bangladesh and officials of UNDP with respect to the provision of support services by the UNDP country office for the nationally managed project Third National Communication to the UNFCCC

2. In accordance with the provisions of the letter of agreement signed on [*insert date of agreement*] and the project document, 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)
1.Preparation of Vendor Profile	2014	\$28.80	As per UPL
2.Staff HR Benefits	2014	\$217.17	As per UPL
3.Recurrent Personal Management Services	2014	\$511.83	As per UPL
4. Consultant Recruitment	2016	\$80.27	As per UPL
5.Renew IDs	2014-2016	\$46.20	As per UPL
6.Travel/Ticket request	2014-2016	\$83.25	As per UPL
7.F10 Settlement	2014-2016	\$45.40	As per UPL
8.Procurement	February 2014	47.23	As per UPL

Total=1060.15

4. Description of functions and responsibilities of the parties involved

Ministry of Environment and Forests (MoEF)/ Department of Environment (DOE) will be responsible for overall implementation of the TNC project. They will recruit project officials through UNDP and also national experts/ consulting firms for conducting the activities of the project, form National Steering Committee for facilitating coordination of project activities across institutions, data sharing and dissemination of information and providing general advices regarding efficient and timely execution of the project. Five Core Sectoral Working Groups will be formed for providing guidance to the national experts /technical personnel for efficiently carrying out activities as outlined under each component.

National capacity, which has been contributing to the field of climate change internationally, will be utilized fully. In this process, internationally famed national experts will be involved in the preparation of the TNC. The DOE will organize workshops, consultation meetings and training programmes to enhance the quality of the reports of TNC. Efforts will be made to enhance capacity of DOE and within other GOB agencies and personnel, while stakeholders will be involved in consultations/workshops/round tables to voice their concerns on various relevant issues and other capacity building activities for professional advancements.

MoEF/DOE will ensure timely preparation of the draft reports on six chapters of the TNC. They will engage peer reviewers to review the draft reports and form Editorial Board for final compilation, proofreading and edition of the Final report on TNC. The DOE will publish the TNC, disseminate among the stakeholders and finally submit the TNC to the UNFCCC Secretariat through the Ministry of Environment & Forests, GOB.

UNDP Bangladesh Country Office will facilitate the implementation of the project, provide support services to the project in accordance with the UNDP procedures as requested by the NPD and/or his representative or may follow national rules and regulations, as applied. These services may include sub-contract arrangements with individual experts/professionals (project Support Team members), issuance of contracts, HR activities, financial transactions to be performed on behalf of the implementing partner and procurement of goods and other services as necessary.

SIGNATURE PAGE

Country: Bangladesh

UNDAF Outcome (s)/Indicator (s): 3:1:By 2016, populations vulnerable to climate change and natural disaster have become more resilient to adapt to risks

CPAP Outcome (s)/Indicator (s): Environment, Climate and disaster vulnerability reduced; Community Asset Score for disaster risk and reduction

CPAP Output (s)/Indicator (s): Adaptation and risk reduction integrated at sector and community level

Executing Entity/Implementing Partner: Ministry of Environment and Forests (MoEF), Government of Bangladesh

Implementing entity/Responsible Partner: Department of Environment, MoEF, Government of Bangladesh

Programme Period: 2013-2016	Total resources required: \$491,621
Atlas Award ID: 00074288	Total allocated resources: \$491,621
Project ID: 00086756	
PIMS #: 5170	
Start Date: 01 September 2013	
End Date: 30 August 2016	
Management Arrangements: NIM	
PAC Meeting Date: 21 May 2013	
	<ul style="list-style-type: none">• Regular• Other:<ul style="list-style-type: none">○ GEF \$456,621○ Government○ In-kind○ Other
	In kind contribution: \$35,000

Agreed by (Government):

NAME	SIGNATURE	Date/Month/Year
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Agreed by (Executing Entity/Implementing Partner):

NAME	SIGNATURE	Date/Month/Year
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Agreed by (UNDP):

NAME	SIGNATURE	Date/Month/Year
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