



United Nations Development Programme
Country: TAJKISTAN
PROJECT DOCUMENT

Project Title: Enabling Activities for the Preparation of Tajikistan's Third National Communication to the UNFCCC

UNDAF Outcome(s): Pillar 3, Clean Water, Sustainable Environment and Energy

Outcome 1. National and transnational environmental agreements are better implemented, and natural resources are more sustainably managed.

Output 1.1. Greater capacity among government to negotiate, ratify and implement major international conventions and transnational policy and legal frameworks on sustainable management of natural resources.

UNDP Strategic Plan: Environment and Sustainable Development

Primary Outcome: Promoting adaptation to climate change

Expected CP Outcome(s): Outcome 6.1. Improved environmental protection, sustainable natural resources management, and increased access to alternative renewable energy.

Expected CP Output: Output 6.1. Government is provided with capacity building support to negotiate, ratify and implement major international conventions, transnational policy and legal frameworks on sustainable natural resources management (including climate change mitigation, combating desertification, sustainable water management and biodiversity conservation) and local communities are supported to participate in sustainable livelihoods.

Implementing Partner: State Administration for Hydrometeorology under the Committee of the Environmental Protection under the Government of Tajikistan

Other Partners: Committee of Environmental Protection, Ministry of Energy and Industry, Ministry of Economic Development and Trade, Ministry of Agriculture, Ministry of Transport and Communications, Ministry of Melioration of Water Resources, Ministry of Health, State Statistics Committee, State Committee on Land Management, Cartography and Geodesy, Academy of Sciences, NGOs (as relevant).

Brief description

The project objective is to enable Tajikistan to prepare and submit its Third National Communication (TNC) on climate change to the CoP of the UNFCCC in accordance with its commitments as a non-Annex 1 Party (as mandated by Article 4 and 12 of this Convention). The main components of the project are: (i) an inventory of greenhouse gases for the base year 2005 and time series 2004-2009; (ii) an assessment of potential impacts of climate change on natural resources, national economy and human health and elaboration of adaptation measures; (iii) an GHG abatement analysis and other mitigation measures, and (iv) preparation of the Third National Communication of Tajikistan and submission to the CoP. In addition, public awareness activities and stakeholder consultations will be cross-cutting along the overall course of the project implementation. Therefore, the preparation of the Third National Communication is expected to enhance general awareness and knowledge on climate change-related issues in Tajikistan, and enable to mainstream them to the national planning and policy.

Programme Period:	<u>2010-2015</u>
Atlas Award ID:	<u>00061285</u>
Project ID:	<u>00077602</u> 75852 *
PIMS #	<u>4459</u>
Start date:	<u>10 May 2011</u>
End Date	<u>9 May 2014</u>
Management Arrangements	<u>NIM</u>
PAC Meeting Date	<u>27 April 2011</u>

Total resources required	<u>480,000 USD</u>
Total allocated resources:	
○ GEF	<u>480,000 USD</u>
○ Government (in-kind)	<u>50,000 USD</u>
○ Other	_____

Agreed by the Committee of Environmental Protection under the Government of the Republic of Tajikistan

Mr. Talbak Salimov, Chairman

NAME

SIGNATURE

Date/Month/Year

Agreed by the State Administration for Hydrometeorology under the Committee of Environmental Protection under the Government of Tajikistan:

Mr. Mahmad Safarov, Director

NAME

SIGNATURE

Date/Month/Year

Agreed by UNDP Country Office in Tajikistan:

Mr. Rastislav Vrbensky

NAME

SIGNATURE

Date/Month/Year



23.05.11

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Acronyms

AFA	Administrative and Finance Assistant
CCC	Climate Change Centre
CDM	Clean Development Mechanism
CoES	Committee of Emergency Situations
CoEP	Committee for environmental protection
CoP	Conference of Parties
CRM	Climate Risk Management
DPM	Deputy Project Manager
DRMP	Disaster Risk Management Programme
FNC	First National Communication
FoNS	Faculty of Natural Sciences
GDP	Gross Domestic Production
GCM	Global Circulation Model
GHG	Greenhouse Gas
GoT	Government of Tajikistan
HDRs	Human Development Reports
IPCC	Intergovernmental Panel on Climate Change
IR	Inception Report
IC	International Consultant
LULUCF	Land use Land use change and forestry
MDGs	Millennium Development Goals
MoEI	Ministry of Energy and Industry
NAP	National Action Plan for climate change mitigation
NC	National Communication
NCSP	National Communication Support Program
NE	National Experts
NGOs	Non-governmental Organizations
PIU	Projects Implementation Unit
PM	Project Manager
PPCR	Pilot Programme for Climate Resilience
PSC	Project Steering Committee
QA/QC	Quality Assurance/Quality Control
QPRs	Quarterly Progress Reports
SBAA	Standard Basic Assistance Agreement
SGP	Small Grants Program
SNC	Second National Communication
Tajik Hydromet	State Administration for Hydrometeorology
TL	Team Leader
TNA	Technology Needs Assessment
TNC	Third National Communication
TRs	Technical Reports
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Program
UNEP	United Nations Environment Program
UNFCCC	United Nations Framework Convention on Climate Change
V&A	Vulnerability and Adaptation

1. SITUATION ANALYSIS

1. The Republic of Tajikistan (hereafter referred to as Tajikistan) is a small landlocked Central Asian republic of the former Soviet Union with a land area of 143,100 km², with the Tian Shan, Gissar-Alay and Pamir mountain systems covering about 93% of the country's land area; only less than 10% of its territory is suitable for cultivation. The mountains complicate internal transport and communication, though they endow the country with rich hydropower potential as well as mineral resources. Presently, the hydropower plants of the country contribute 98% of the total energy capacity of the country, at the same time a mere 5% of the 300,000 GWh potential in annual hydropower generation is utilized in Tajikistan. Small hydropower plants have favorable prospects.
2. Following the civil war period (1992-97), Tajikistan slowly transitioned from the status of post-conflict recovery requiring direct humanitarian assistance into an economically viable nation-state, promoting sustainable development based upon nascent democratic and market economy principles. Still, Tajikistan is the poorest country in the Commonwealth of Independent States (CIS) region with a population size of 7.4 million, more than 70% of whom live in rural areas, and with GDP slightly over than \$730 per capita. Poverty is still extremely high, with more than half of the population living on less than \$2.15 per day. However, the economy is growing fast, at an average rate of over 7% per year, for the past years bringing some hope to an otherwise difficult situation.
3. Deteriorating public service infrastructure, weak governance, low per capita incomes, persistent energy shortages and increasing volatility of climate-related disasters constitute main development challenges requiring urgent attention. Rapidly growing remittances from hundreds of thousands of migrants to (mostly) Russia has supported the Tajik economy in recent years, but at present the economic stresses are becoming increasingly apparent.
4. The country is currently experiencing an immediate and highly visible economic crisis triggered primarily by the closely interrelated threats to energy, water and food security that were painfully brought to light in 2008 and recently have been compounded by Tajikistan's macro-economic difficulties. Climate variability and change already adds to the current complexity of multiple stresses and will place severe bio-physical limitations on the climate-sensitive sectors of hydropower, irrigation and agriculture in Tajikistan. The amount and timing of water availability will be a growing challenge imposed on already fragile systems of energy, water and food production.
5. Climate change is likely to pose additional and significant risks to economic activity, human welfare and the environment in Tajikistan. Recent droughts and weather extremes have illustrated existing inadequacies in the climate resilience of major sectors, for example the inability of hydropower facilities to cope with the extreme winter of 2008. Climate projections suggest Tajikistan will experience higher temperatures, reduced rainfall and higher evapotranspiration with an increased frequency of extreme events such as floods, droughts and storms. Such changes will lead to impacts, such as fluctuations in the hydrological cycle - especially from glacial retreat and flash floods - with consequential downstream consequences for ecosystems and water resources for livelihoods, water resources for hydro power, potable water, irrigation and food security. These impacts pose direct threats to agricultural production and rural livelihoods, for example from degradation of arable land, forests, pastures and rangeland. In fact, Tajikistan is considered as most vulnerable country susceptible to climate change impacts with deficit in adaptive capacity¹.
6. In 1998 Tajikistan ratified the United Nations Framework Convention on Climate Change (UNFCCC) as a non-Annex I party to UNFCCC, while the ratification of the Kyoto Protocol has come into force in April 2009. As a Non-Annex 1 Party of the UNFCCC, Tajikistan prepared two National Communications (NCs), with the First

¹ World Bank (WB), 2009: "Adapting to climate change in Europe and Central Asia"

National Communication (FNC and Phase 2) submitted in 2002 and the Second National Communication (SNC) in 2008.

2. STRATEGY

7. The project objective is in line with the priorities of the Government of Tajikistan and UNDP's existing programming goals. It is consistent with Tajikistan's national priorities to promote environmental sustainability and sustainable natural resource management as defined in the National Development Strategy up to 2015 and Poverty Reduction Strategy (PRS) of the Government of the Republic of Tajikistan 2010-2012.
8. The focus on building national capacities for integrating environment, including climate change, into national strategic planning and decision-making is directly linked to the strategic priorities defined in the United Nations Development Assistance Framework (UNDAF) for 2010-2015², and contributes to the UNDP Country Programme Action Plan (CPAP) for 2010-2015³ and National Development Strategy of the Republic of Tajikistan up to 2015⁴.
9. The Third National Communication project will enable Tajikistan to prepare the Third National Communication to the Conference of Parties in accordance with Article 12 of the UNFCCC. It will develop and enhance national capacities to fulfil Tajikistan's commitments to the Convention on a continuing basis; enhance general awareness and knowledge of government planners on issues related to climate change and reduction of greenhouse gas emissions, thus enabling them to take such issues into account into national development agenda; and mobilize additional resources for projects related to climate change and mitigation of greenhouse gases.
10. More detailed information on the project strategy is available in [Annex B](#).

² UNDAF Pillar 3. Clean water, sustainable environment and energy; [Outcome 1](#), National and transnational environmental agreements are better implemented, and natural resources are more sustainably managed; [Output 1.1](#), Greater capacity among government to negotiate, ratify and implement major international conventions and transnational policy and legal frameworks on sustainable management of natural resources.

³ [CPAP Output 6.1](#), Government is provided with capacity building support to negotiate, ratify and implement major international conventions, transnational policy and legal frameworks on sustainable natural resources management (including climate change mitigation, combating desertification, sustainable water management and biodiversity conservation) and local communities are supported to participate in sustainable livelihoods.

⁴ [National Development Strategy](#), p. 57

3. PROJECT RESULTS FRAMEWORK:

<p>This project will contribute to achieving the following Country Programme Outcome as defined in CPAP:</p> <p><u>Outcome 6.1.</u> Improved environmental protection, sustainable natural resources management, and increased access to alternative renewable energy. <u>Output 6.1.</u> Government is provided with capacity building support to negotiate, ratify and implement major international conventions, transnational policy and legal frameworks on sustainable natural resources management (including climate change mitigation, combating desertification, sustainable water management and biodiversity conservation) and local communities are supported to participate in sustainable livelihoods.</p>					
<p>Country Programme Outcome Indicators: Compliance with international environmental conventions</p>					
<p>Primary applicable Key Environment and Sustainable Development Key Result Area: Promote climate change adaptation</p>					
<p>Applicable GEF Strategic Objective and Program: Enabling Activities: Climate Change</p>					
	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
Project Objective Preparation of the Third National Communication (TNC)	- Preparation and submission of Tajikistan's TNC to the UNFCCC	- FNC submitted to the UNFCCC in 2002; - SNC submitted to the UNFCCC in 2008;	- Tajikistan's TNC will be endorsed and submitted to the UNFCCC	Complete reports on each TNC section	Assumption: - Strong political support for the preparation of the TNC
Outcome 1: GHG Inventory	- Re-estimation for the base year in SNC conducted; - GHG inventory for new time series developed; - Final draft of GHG inventory available.	- National GHG inventory team is set up; - Re-estimate of GHG inventory for 1990-1998 is conducted; - GHG Inventory for 1999-2003 is conducted.	- Re-estimate for the base year 2000 conducted - GHG inventory for 2004-2009 performed - Complete chapter on GHG inventory prepared	Departmental and statistical data records, expert assessment reports and IPCC guidelines/ methodologies	Assumption: - There is an access to private companies' database on emissions Risk: - There is no access to some data on activities, which will lead to uncertainties in GHG emission estimations
Outcome 2: Vulnerability and Adaptation	- Climate indicators, including present and future change in temp and prec (time series: 1980-2010, 2050-2100) for V&A developed; - Synergies with other initiatives on climate, water and natural hazards modeling established; - Paper on practical adaptation measures for priority sectors prepared.	- Climate indicators for V&A analysis developed for 1940-2000 (5) and 2030; - V&A analysis performed for priority sectors, including natural resources, national economy and human health	- V&A analysis with reference to present and future indicators on climate, water and natural hazard risks conducted; - Complete chapter on V&A prepared	Hydrometeorological data records, national and departmental statistics, expert assessment reports	Assumption: - Climate indicators on climate, water, and natural hazards' expected rate by 2050-2100 will effect on more accurate and in-depth research on V&A Risk: - Climate indicators on water and natural hazards modeling will not be generated because of the lack of local capacity and external support that will lead to basic V&A analysis
Outcome 3: Climate change mitigation	- GHG emission scenario for long-term perspective developed; - Sector-specific GHG	- GHG emission scenario not developed; - GHG abatement analysis performed on a number of sectors	- Sector-specific GHG abatement analysis with reference to emission scenario conducted; - Complete chapter on climate	Departmental and statistical data records, expert assessment reports	Assumption: - Findings of the GHG emission scenarios and abatement analysis will be mainstreamed in the

	abatement analysis with reference to present and future trends in GHG emissions performed.		change mitigation prepared	and IPCC guidelines/ methodologies	national environmental and climate policy Risk: - Lack of GHG data and access to it will cause uncertainties in GHG scenario and estimations
Outcome 4: National circumstances; Other relevant information	- The chapter on National Circumstances prepared with reference to updated information and data; - The chapter on other information relevant to NC prepared with reference to updated information and data	- The SNC chapter on National Circumstance contains information and data until 2008; - The SNC chapter on other information relevant to NC contains information and data until 2008.	- Complete chapter on National Circumstances with reference to updated information and data prepared; - Complete chapter on other information relevant to NC with reference to updated information and data prepared.	Departmental and statistical data records, expert assessment reports	Assumption: Available updated statistics and data under National Circumstances analysis will lead to the development of solid socio-economic and climate baseline for the analysis under GHG inventory/abatement and V&A

4. TOTAL BUDGET AND WORK PLAN

Award ID:	00061285	Project ID(s):	00077602
Award Title:	Country Name Project Title		
Business Unit:	TJK10		
Project Title:	Enabling Activities for the Preparation of Tajikistan's Third National Communication to the UNFCCC		
PIMS no.	4459		
Implementing Partner (Executing Agency)	State Administration for Hydrometeorology		

GEF Outcome/Atlas Activity	Responsible Party/ Implementing Agent	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Total (USD)
OUTCOME 1: GHG Inventory	State Administration for Hydrometeorology	62000	GEF	71400	Contractual services / individuals	\$ 15,000.00	\$ 10,000.00	\$ 5,000.00	\$ 30,000.00
				71300	Local consultants	\$ 10,000.00	\$ 8,000.00	\$ 2,000.00	\$ 20,000.00
				71600	Travel	\$ 4,000.00	\$ 3,000.00	-	\$ 7,000.00
				72200	Equipment & furniture	\$ 10,000.00	-	-	\$ 10,000.00
				72400	Communication and audiovisual equipment	\$ 1,000.00	\$ 1,000.00	\$ 1,000.00	\$ 3,000.00
				72500	Supply	-	\$ 1,000.00	\$ 1,000.00	\$ 2,000.00
				74000	Miscellaneous operating expenses	\$ 1,000.00	\$ 1,000.00	\$ 1,000.00	\$ 3,000.00
				Total Outcome 1					\$ 41,000.00
OUTCOME 2: Vulnerability and Adaptation Assessments	State Administration for Hydrometeorology	62000	GEF	71200	International consultants	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	\$ 45,000.00
				71400	Contractual services / individuals	\$ 11,000.00	\$ 10,000.00	\$ 5,000.00	\$ 26,000.00
				71300	Local consultants	\$ 15,000.00	\$ 7,000.00	\$ 3,000.00	\$ 25,000.00
				71600	Travel	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 15,000.00
				72200	Equipment & furniture	\$ 10,000.00	-	-	\$ 10,000.00
				72400	Communication and audiovisual equipment	\$ 1,000.00	\$ 1,000.00	\$ 1,000.00	\$ 3,000.00
				72500	Supply	\$ 1,000.00	\$ 1,000.00	\$ 1,000.00	\$ 3,000.00
				74000	Miscellaneous operating expenses	\$ 1,000.00	\$ 1,000.00	\$ 1,000.00	\$ 3,000.00
				Total Outcome 2					\$ 59,000.00
OUTCOME 3: Mitigation Analysis	State Administration for Hydrometeorology	62000	GEF	71200	International consultants	-	\$ 20,000.00	\$ 20,000.00	\$ 40,000.00
				71400	Contractual services / individuals	\$ 10,000.00	\$ 10,000.00	\$ 3,000.00	\$ 23,000.00
				71300	Local consultants	\$ 10,000.00	\$ 10,000.00	\$ 5,000.00	\$ 25,000.00
				71600	Travel	\$ 3,000.00	\$ 2,000.00	\$ 2,000.00	\$ 7,000.00
				72100	Contractual services / companies	\$ 5,000.00	\$ 5,000.00	\$ 10,000.00	\$ 20,000.00
				72200	Equipment & furniture	\$ 4,000.00	\$ 1,000.00	-	\$ 5,000.00

GEF Outcome/Atlas Activity	Responsible Party/ Implementing Agent	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Total (USD)
				72400	Communication and audiovisual equipment	-	\$ 1,000.00	\$ 1,000.00	\$ 2,000.00
				72500	Supply	-	\$ 500.00	\$ 500.00	\$ 1,000.00
					Total Outcome 3	\$ 32,000.00	\$ 49,500.00	\$ 41,500.00	\$ 123,000.00
OUTCOME 4: National circ; Other relevant info	State Administration for Hydrometeorology	62000	GEF	71300	Local consultants	\$ 2,000.00	\$ 3,000.00	\$ 3,000.00	\$ 8,000.00
				71300	Local consultants	\$ 5,000.00	\$ 5,000.00	\$ 4,000.00	\$ 14,000.00
				74000	Miscellaneous operating expenses	\$ 2,000.00	\$ 2,000.00	\$ 2,000.00	\$ 6,000.00
					Total Outcome 4	\$ 9,000.00	\$ 10,000.00	\$ 9,000.00	\$ 28,000.00
Project Management, including Monitoring and evaluation	State Administration for Hydrometeorology	62000	GEF	71400	Contractual services / individuals	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00	\$ 75,000.00
				72400	Communication and audiovisual equipment	\$ 2,000.00	\$ 2,000.00	\$ 1,000.00	\$ 5,000.00
				72500	Supply	\$ 2,000.00	\$ 2,000.00	\$ 1,000.00	\$ 5,000.00
				74200	Publications	-	-	\$ 19,000.00	\$ 19,000.00
				74000	Miscellaneous operating expenses	\$ 2,000.00	\$ 2,000.00	\$ 1,000.00	\$ 5,000.00
				74100	Professional services	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 15,000.00
					Total Management	\$ 36,000.00	\$ 36,000.00	\$ 52,000.00	\$ 124,000.00
PROJECT TOTAL						\$ 177,000.00	\$ 159,500.00	\$ 143,500.00	\$ 480,000.00

Summary of Funds:⁵

	Amount Year 1	Amount Year 2	Amount Year 3	Total
GEF	\$ 177,000.00	\$ 159,500.00	\$ 143,500.00	\$ 480,000.00
Donor 2 (other donors)	-	-	-	-
Donor 3 (cash and in-kind) e.g. Government	-	-	-	-
TOTAL	\$ 177,000.00	\$ 159,500.00	\$ 143,500.00	\$ 480,000.00

⁵ Summary table should include all financing of all kinds: GEF financing, co-financing, cash, in-kind, etc...

WORK PLAN

Outputs/Activities	Year 1				Year 2				Year 3			
	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
Implementation arrangements and project inception												
1. Contract the Project Implementation Unit (PIU) staff												
2. Establish thematic teams (GHG inventory, A&V, GHG abatement) and appoint TLs												
3. Contract IC on abatement analysis												
4. Update the composition of the PSC												
5. Organize a project inception workshop												
6. Organize a scoping meeting with the team												
7. Maintain and upgrade the network among experts/institutions												
4.1: National circumstances												
1. Validate the gaps of information identified under stocktaking												
2. Identify the respective sources of information												
3. Collect data and information from different sources												
4. Fill the gaps, update and add the new information												
5. Draft national circumstances sections relevant to each thematic area												
6. Circulate the National Circumstances section for comment, address comments												
7. Finalize the National Circumstances section under the TNC												
4.2: GHG inventory												
4.2.1 The GHG inventory team maintained and strengthened, and methodologies for GHG inventory estimates analyzed, selected and validated												
1. Identify and mobilize national experts in targeted sectors and related areas of relevance												
2. Review the existing information on the first and second GHG inventory already archived and familiarize with guidelines												
3. Identify all new sources of information for filling data gaps												
4. Analyze the acceptability of the available methodologies of estimates under the Tajikistan's specific conditions for each category												
4.2.2 GHG inventory data collected												
1. Review available activity data already archived												
2. Identify new activity data needed for estimates of GHG emissions for 2004-2009												
3. Identify possible sources of data for estimates of GHG emissions for 2004-2009												
4. Collect the necessary activity data from the available sources												
5. Identify data gaps, if available												
4.2.3 A completed GHG national inventory for 2005 with time series 2004-2009 developed												
1. Re-estimate GHG emissions inventory for the base year 2000 under SNC												
2. Estimate the GHG emissions inventory for 2005 and develop time series for 2004-2009												
3. Prepare a draft inventory of anthropogenic greenhouse gas emissions by sources and removals by sinks for 2005 and time series for 2004-2009												
4. Develop key sources analysis (year 2005) and sensitivity analysis (years 2004-2009)												

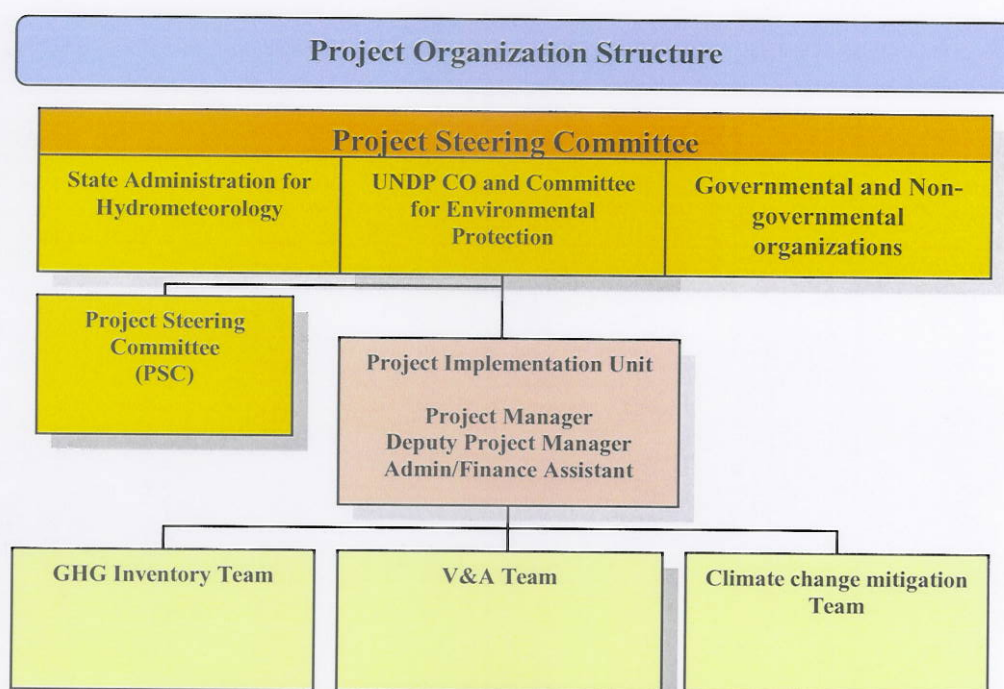
Outputs/Activities	Year 1				Year 2				Year 3			
	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
5. Develop a key sources inventory for 2005												
6. Undertake uncertainty assessment as guided by IPCC methodologies												
7. Circulate the inventory for internal and external peer review												
8. Organize a national workshop to present findings from the Third GHG inventory												
9. Incorporate comments received from the review process												
10. Finalize the inventory to be submitted as a part of the TNC of Tajikistan												
11. Archive activity data, emission factors and estimates												
4.3: Programmes containing measures to facilitate adequate adaptation to climate change												
4.3.1 Specific approach and methods to be used in Vulnerability and Adaptation analysis identified												
1. Review pertinent assessments and analysis performed on V&A												
2. Decide on the mode and range of the assessment: qualitative versus quantitative. Decide on the approach and methods to be used for the assessment.												
3. Identify the type and scope of data and information needed												
4. Review the policy process and development context for the selected area												
5. Collect and synthesize the necessary data and information												
4.3.2 Climate direct and indirect indicators to assess vulnerability and adaptation of priority sectors to climate change impacts developed												
1. Identify respective indicators (air temperature, atmospheric precipitation, snow cover and stock, extreme weather events) for the climate baseline for 1980-2010												
2. Explore an opportunity in modelling climate impact scenarios by 2050-2100												
3. Explore an opportunity in developing river run-off models in light of climate change by 2050-2100												
4. Explore an opportunity in modelling of the natural hazards in light of climate change												
4.3.3 Vulnerability and Adaptation in priority sectors assessed												
1. Identify priority sectors on natural resources, national economy and human health												
2. Assess current vulnerability of priority sectors to climate change												
3. Map out any previous/present adaptation experience under priority sector												
4. Develop the paper of practical measures on adaptation in priority sectors												
4.3.4 Chapter of Vulnerability and Adaptation (V&A) analysis under Tajikistan's TNC completed												
1. Develop the draft chapter of the V&A												
2. Circulate the draft chapter of V&A for internal review and comments												
3. Circulate the draft chapter of V&A for external peer review and comments												
4. Organize a national workshop to highlight findings from the V&A analysis												
5. Finalize the V&A chapter to be submitted as a part of the TNC of Tajikistan												
6. Archive and document all the V&A related data, information and estimates												
4.4. Programmes containing measures to mitigate climate change												
4.4.1: GHG emission scenarios by 2050 developed. On the base of scenarios, GHG abatement analysis conducted												

Outputs/Activities	Year 1				Year 2				Year 3			
	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
1. Consider estimates of GHG inventory for the base year 2005 and emission trend for 2004-2009, which will serve as a baseline for the analysis of GHG emissions towards 2050												
2. Collect all relevant macro-economic data and set assumptions												
3. Process the collected data and make them ready for GHG scenario generation												
4. Develop GHG emission scenario for the main categories, with a particular focus on energy, transport and agriculture, for 2005-2050												
5. Develop GHG abatement measures and technology options with a focus on energy, transport and agriculture categories.												
6. Assess new (if any) and review existing national policy and legal frameworks of climate change mitigation with all relevant Ministries and departments												
7. Analyze an effect of Clean Development Mechanism (CDM) on economic and environmental sustainability												
8. Update the package of project ideas and proposals developed under FNC (Phase2) with new ones												
4.3.2 A GHG abatement analysis completed for the period 2005-2050.												
1. Develop the draft chapter of the GHG abatement analysis												
2. Circulate the draft chapter of GHG abatement analysis for internal review and comments												
3. Circulate the draft chapter of GHG abatement analysis for external peer review												
4. Receive comments and reflect to the document.												
5. Organize a national workshop to present findings from the GHG abatement analysis												
6. Finalize the GHG abatement analysis chapter to be submitted as a part of the SNC												
7. Archive and document all the GHG abatement analysis related studies and estimates												
4.5. Other information considered relevant to the achievement of the objective of the Convention												
4.5.1 The information considered relevant to the achievement of objective of the UNFCCC compiled and synthesized												
1. Collect, synthesize and provide the overall information relevant to the Article 6 activities												
2. Collect, synthesize and provide information on the research and systematic observation systems.												
3. Collect, synthesize and provide information on ongoing programs and projects relevant to climate change and NC process												
4. Develop the Action Plan paper on education and raising awareness on climate change												
5. Summarize all the information collected in a draft chapter. Distribute it for review and comments												
6. Incorporate comments to the above draft chapter and finalize it as part of the Tajikistan's TNC												
4.6 SNC produced, translated, submitted and disseminated												
1. Compile a draft of the Tajikistan's Third National Communication												
2. Circulate the draft for comments and review and incorporate them												

Outputs/Activities	Year 1				Year 2				Year 3			
	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
3. Endorse the document by the PSC												
4. Finalize the Third National Communication of Tajikistan												
5. Translate TNC into English												
6. Publish the Tajikistan's TNC to the CoP of UNFCCC												
6. Prepare e-copies of Tajikistan's TNC in CD-ROMs												
7. Submit officially the Tajikistan's TNC to the CoP of the UNFCCC												
8. Organize a national workshop to launch and present the findings of the Tajikistan's TNC												
9. Launch the report in a side event during the CoP /Subsidiary Body sessions												

5. MANAGEMENT ARRANGEMENTS

11. The project will be executed through National Implementation Modality (NIM) with the State Administration for Hydrometeorology of the Committee for environmental protection under the Government of the Republic of Tajikistan. The Project Implementation Unit will be established in the course of Tajikistan's TNC preparation and would serve as implementation body of such project. The Project Implementation Unit (PIU) will consist of three permanent project staff. The Project Manager (PM), to be hired in full-time basis, will coordinate the day-to-day project execution activities and will be responsible for meeting of the objectives of the project. The Deputy Project Manager (DPM) will support the PM as required on technical and operational issues related to project implementation. Finally, an Administrative and Finance Assistant (AFA) will be recruited. UNDP will provide oversight to the overall implementation of the project, while the Project Steering Committee (PSC) will provide guidance and support to the project. For more information about management arrangements please go to the section on [Institutional Framework for Project Implementation](#).



6. MONITORING FRAMEWORK AND EVALUATION FRAMEWORK

12. 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 regional technical advisors and other stakeholders. The Inception Workshop is crucial to building ownership for the project expected results, finally define the project methodologies and approach, and to plan the first year annual work plan.
13. The Inception Workshop should 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 HQ 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. The Terms of Reference for project staff will be discussed again as needed.

- b) Discuss and finalize the first annual work plan based on the project results framework. 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 the PSC meetings. Roles and responsibilities of all project organisation structures should be clarified and meetings planned. The first PSC meeting will be held within the first six months following the inception workshop.

14. An Inception Workshop report is a key reference document and will 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.
- Based on the information recorded in Atlas, a Project Progress Reports (PPR) can be generated in the Executive Snapshot.

Annually:

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

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

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

Terminal Report: The terminal report should be prepared at least three months before the project ends and should document progress towards achievement of project result, lessons learnt and key successes of the project, as well as provide recommendations for follow-up activities.

Financial Audit: The State Administration for Hydrometeorology will provide the UNDP Resident Representative in Tajikistan with certified periodic financial statements, and with an annual audit of the financial statements relating to the status of UNDP (including GEF) funds according to the established procedures set out in the Programming and Finance manuals. The Audit will be conducted by the legally recognized auditor engaged by UNDP Country Office in Tajikistan.

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: 10,000	Within first two months of project start up
Measurement of Means of Verification of project results.	<ul style="list-style-type: none"> ▪ Project Manager ▪ UNDP CO, UNDP GEF 	None	Start, mid and end of project.
Measurement of Means of	<ul style="list-style-type: none"> ▪ Oversight by Project 	None	Annually prior to ARR/PIR

Type of M&E activity	Responsible Parties	Budget US\$ <i>Excluding project team staff time</i>	Time frame
Verification for Project Progress on <i>output and implementation</i>	Manager ▪ Project team		and to the definition of annual work plans
ARR/PIR	▪ Project manager and team ▪ UNDP CO ▪ UNDP RTA ▪ UNDP EEG	None	Annually
Periodic status/ progress reports	▪ Project manager and team	None	Quarterly
Project Terminal Report	▪ Project manager and team ▪ UNDP CO	None	At least three months before the end of the project
Audit	▪ UNDP CO ▪ Project manager and team	Indicative cost per year: 5,000 Total for 3 years: 15,000	Yearly
TOTAL indicative COST Excluding project team staff time and UNDP staff and travel expenses		US\$ 25,000	

Learning and knowledge sharing:

15. Results from the project will be disseminated within and beyond the project intervention zone through existing information sharing networks and forums.
16. The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to project implementation though lessons learned. The project will identify, analyze, and share lessons learned that might be beneficial in the design and implementation of similar future projects.

7. LEGAL CONTEXT

17. This document together with the CPAP signed by the Government of Tajikistan and UNDP which is incorporated by reference constitute together a Project Document as referred to in the SBAA (signed by the parties on 1 October 1993) and all CPAP provisions apply to this document.
18. 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.
19. 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.
20. 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.
21. 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.

8. APPENDICES

- A. [Summary report of the self-assessment exercise](#)
- B. [Technical components of the project proposal](#)
- C. [Risk Log](#)
- D. [Terms of reference for main staff of the project](#)
- E. [Stakeholders matrix](#)

Appendix A: Summary report of the self-assessment exercise

I. Scope and approach to the stocktaking

26. The *main objective* of the self-assessment exercise performed is to undertake a highly consultative and participatory process of needs assessment, to identify and validate the critical priorities for preparation of the Third National Communication of the Republic of Tajikistan to the UNFCCC.
27. The stocktaking exercise was undertaken to ensure that the TNC builds on the activities, studies, outcomes, experiences and institutional settings of the SNC and FNC.
28. The following *main tools* have been used for the stocktaking: (i) *in-desk review* of relevant documents; (ii) *discussions* among stakeholders; (iii) consultative *meetings / workshops*⁶. The stocktaking exercise took about 20 weeks brought together around 30 stakeholders from different ministries, public institutions, NGOs, academia, international organizations based in Tajikistan and private sector. (See Appendix E: Stakeholder Matrix)

II. Summary of main findings of the assessment

29. The stocktaking team performed an assessment of each thematic area relevant to the National Communication, namely on National Circumstances, GHG emission inventory, Vulnerability and Adaptation analysis of priority sectors to climate change impacts, GHG emission abatement analysis and other information considered relevant to climate change and NC preparation process. More details are provided in the following sections:

II.1 National Circumstances

II.1.1 The baseline

30. The first document, which described the geographic profile of Tajikistan along with national circumstances, touching upon general climate conditions, natural resources and economic development, was Tajikistan's FNC. In the SNC, the relevant sections were updated and demonstrated the latest picture of the national circumstances in the country considering the socio-economic, political and legal changes over the past years.
31. The section of national circumstances under Tajikistan's SNC considers: (i) Geographic profile; (ii) Climate diversity; (iii) Natural resources [glaciers; water; biodiversity; ecosystems, forests]; (iv) Population and employment, (v) Economic development [industry; energy; agriculture; transport; tourism]; (vi) Environmental Protection Policy.
32. In SNC, the information on the national circumstances considered the last available statistics. The reporting time frame for the Greenhouse Gas Inventory covered the period 1999-2003 with 2000 being the base year. In Vulnerability/Adaptation section, the climate data records, which had been used for climate change analysis, referred to 1940-2000⁷. However, the *reporting time frame* on some areas/sectors described under SNC was around 1999-2004. At the same time, the section on policy and measures on climate change tended to describe the most updated changes and transformations in the national policy for 2007 and 2008.
33. The main source of information and statistics on the national circumstances was the State Statistic Committee and complemented by relevant annual statistical reports. Meanwhile, the Ministry of Economy and Trade

⁶ Four consultative meetings were held in the course of the stocktaking exercise. The first was a scoping meeting. The second was held on GHG inventory and mitigation. The third was held on V&A and other issues.

⁷ The trend on climate change data on some observation stations was updated until 2005.

supported the provision of the inter-departmental data and assessment results, which substantially contributed to the development of the section on national circumstances.

II.1.2 Priorities / new areas of work under TNC

34. The chapters of the National Circumstances under Tajikistan's SNC will contain information on the following: (i) *Geographic profile*; (ii) *Climate profile* (iii) *Natural resources*: glaciers and water resources, biological diversity and ecosystems, forests; (iv) *Population and employment* (v) *Economic development*: industry, energy, agriculture, transport, tourism; (vi) *Environmental Protection*. All these chapters will be analyzed considering changes and transformations in environmental and socio-economic policy in the country over the past years.
35. There is a need to update the *climate profile* (temperature and precipitation) mainly with the recent extreme weather events emerged in the country due to climate change. Updated information will be provided for 1980-2010, which will be additional to the time frame of 1940-2000.
36. In the chapter on *natural resources* the information will be provided on glaciers and water resources, biological diversity and ecosystems, forests with reference to the most recent legal and policy frameworks on nature protection and environmental management in Tajikistan.
37. The chapters on *population and employment* will include updated information on the population rate and employment over the past years, to demonstrate, therefore, the linkage between the growing population and dynamics in greenhouse gas emissions per capita in the subsequent TNC's section on GHG Inventory. The review on *economic development* will be first updated by the latest GDP production and socio-economic development with reference to the recent Poverty Reduction Strategy (PRS-3) for 2010-2012, MDG Progress Report (2010), National Human Development Report (2010), and other national programmes on development.
38. The review of the institutional arrangement on climate policy and *environmental protection* in Tajikistan will be grounded on updated information on the latest adopted national policy frameworks and programmes, including PRS-3, Pilot Programme for Climate Resilience (PPCR), and environmental laws⁸.

II.2 GHG inventory

II.2.1 The baseline

39. The second National GHG emission inventory by sources and sinks was performed in the frameworks of the SNC. The solid database, strengthened capacity of the local experts and best practices of other projects, including the regional project on "*Building capacities to improve the quality of the GHG inventories in East Europe and CIS*" significantly contributed to the preparation of the second National GHG emission inventory.
40. The lead agency⁹ responsible for the GHG inventory preparation was the Climate Change Centre of the State Administration for Hydrometeorology under the Committee for Environmental Protection under the Government of the Republic of Tajikistan. Having the capacity of the UNFCCC Focal Point, the CC Centre of the State Administration for Hydrometeorology is responsible for the implementation of the UNFCCC in Tajikistan.

⁸ The laws in draft include the law on environmental monitoring and law on ecological information

⁹ The designation "lead agency" implies that the agency has overall responsibility for the inventory and that the agency carried out most, or all, of the following duties: co-ordination/compilation of national inventory; archiving of relevant national data; periodic updating of the inventory; documentation of selection process for national activity data, emission factors, and other conversion factors; documentation of methods and assumptions used; validation of conversion units and other data; verification of inventory estimates; compilation of the inventory report; and reporting to international bodies.

41. All *activity data* and *statistics* concerning each inventory sector were national. The sources for data records were received from the State Statistical Committee, although, they did not envisage specialized data on greenhouse gas emissions, intending for GHG inventory purposes to the IPCC categories and nominations. Other *data providers* were the Committee for Environmental Protection, Ministry of Energy and Industry, State Committee for land management and forestry, Customs Services, and specialized companies and enterprises, including the national energy company Barki Tojik, transport agencies Tojikiston and Rohi Ohan, fuel company Nafrason, state enterprise Tajik Gas, municipal company Hojagii Manzili Kommunalii. Also, for some other sectors and categories, UN FAO data were applied.
42. The Second National GHG emission inventory was performed according to the 1996 and 2006 revised IPCC Guidelines with UNFCCC software v.1.3. Methods elaborated have been “*Tier 1*” and “*Tier 2*”. Emissions of *carbon dioxide* released from energy & transport, have been estimated by utilization of *reference approach (top-down)* and *estimation by source (bottom-up) approach*.
43. Tajikistan’s second national inventory covered five main GHG sources: Energy, Industrial Processes, Agriculture, Waste and Land Use, Land Use Change and Forestry (LULUCF) and considered 9 GHG gases with direct greenhouse effect, including, CO₂, CH₄, N₂O and perfluorocarbons (CF₄ and C₂F₆) and indirect greenhouse effect, including CO, NO_x, NMVOC and SO_x. Estimates of *key sources*¹⁰ have been provided as well. Aggregated GHG emissions and removals expressed in CO₂ equivalent have been provided too. The reporting time frame for the second GHG inventory was 1999-2003, which envisaged the re-estimation of the first GHG inventory for 1990-1998 performed within the First National Communication in line with rechecked data and statistics. The base year for the Second GHG inventory was the year 2000.
44. The major technical *constraints* that were evident in the GHG inventory process related to the activity data gaps and use of IPCC default emission factors that do not reflect the country situation. The gaps in data for the majority of Tajikistan’s emission categories were the main constraints for the preparation of the accurate GHG inventory. These included: *mobile combustion* and *fuel combustion in industry*, namely because of the absence of the national energy balance accounting since 1990s. In agricultural activity, the lack of data and statistics referred to *enteric fermentation* and *rice cultivation*. Another factor that complicated the process of inventory was inaccessibility to data, particularly on *fuel import*, *number of vehicles* and *industrial production*. The category on solid waste considered the calculations of GHG emissions in urban cities, as collection of emission for rural areas was impossible due to dispersion of waste pits along the vast territories or their temporary storage in small non-managed pits.
45. The overall uncertainty of Tajikistan’s second GHG inventory is assessed as medium. Meanwhile, for some sectors under the category *Industrial Processes* the uncertainty level is low, while for other ones, including *Agriculture*, *LULUCF*, *Waste Management*, the uncertainty is relatively high.

II.2.2 Priorities / new areas of work under TNC

46. Tajikistan’s third national GHG inventory will cover all sources and sinks as per the IPCC categories as well as all gases, including direct GHGs: CO₂, CH₄, N₂O, CF₄ and C₂F₆ along with indirect GHGs such as: CO, NO_x, SO_x and NMVOC. Estimates of the *key sources*, *sensitivity analysis* and *uncertainty level* will be also provided. The third GHG inventory will report on estimates of aggregated GHG emissions and removals expressed in CO₂ equivalent.
47. The third national GHG inventory will cover the reporting time frame for 2004-2009 with the base year of 2005. A special attention will be given to the key source categories and a sensitivity analysis will be undertaken to see how/whether the key sources have changed. Priority will be given to the activity data, which made constraints in the previous GHG inventory, including the data on *mobile combustion* and *fuel*

¹⁰ A *key source category* is one that is prioritized within the national inventory system because its estimate has a significant influence on a country’s total inventory of direct GHGs, in terms of the absolute emissions level and trend.

combustion in industry, enteric fermentation and rice cultivation, etc. Based on availability of data, relevant re-estimation of GHG emissions for the second GHG inventory will be made.

48. As regards *emission factors*, in most of the cases default factors provided by IPCC 1996 and 2006 Revised Guidelines will be used. The team will see the possibility to use Emission factors calculated under other studies / projects/ programs.
49. All the new input data applied along with emission estimates will be *archived* using the same format as for the second national GHG inventory archive.

II.3 Vulnerability and adaptation

II.3.1 The baseline

55. The first assessment of Tajikistan's vulnerability and adaptation options was carried out in the *First National Communication* to UNFCCC and touched upon the sectors of the national economy, natural resources and human health. Proposed plan of actions and responsible players for undertaking the main steps towards mitigation to climate change risks and adaptation found its reflection in the *National Action Plan* of the Republic of Tajikistan for climate change mitigation. The *Second National Communication* complemented the existing analysis by further research in this area and reported on updated and new indicators of climate change impacts in the region.
56. The principle sections of the Vulnerability and Adaptation for SNC, contained the information on *Climate change indicators and trends*: air temperature, precipitation, snow stock, extreme weather events, aridity and droughts, climate change forecast; impacts of climate change on *Natural resources*: glaciers, water resources, natural ecosystems, forests and species, land resources; *Economic development*: water resources and management, agriculture; *Human health*.
57. Climate parameters, which were used in *Climate change indicators*, included observations data records from 30 meteorological stations and gauges located in different climatic zones of the country. The time frame covered the period from 1940 to 2000¹¹. Meanwhile, 15 meteorological stations were used to analyze changes in snow stock. Expected trends of climate change by 2030 were generated by Potsdam Institute for climate impact research (Germany), which applied statistical model ECHAM3/OPYC4. In parallel, the comparative analysis of actually observed climate trends (air temperature and atmospheric precipitation) with reference to projected outputs of Global Circulation Models (GCM), which had been used within the FNC, was performed.
58. The chapter on climate change impacts on *Natural Resources* envisaged an update on glaciers and water resources research. At the same time, an in-depth analysis of glacial change included the territory disaggregated approach¹², which, based on the results of field surveys and new projected climate outputs, enabled to re-estimate some of calculations of glacial degradation expected by 2030-2050. Analysis on natural ecosystem envisaged the assessment of some fauna species and fish. On the other hand, the analysis of most prone forest species to climate change and their vulnerability to climate risks, such as pest outbreaks and forest fires, was undertaken.
59. The information on climate change impact on *Economic development* contained the analysis of water resources vulnerability (particularly, water deficiency for irrigation, susceptibility of hydropower facilities, and increased dynamics of natural disasters), and exposure of agricultural productivity to extreme weather events. Along with this, efforts were made to analytically interlink the existing changes in agricultural development with expected climate risk for a long-term perspective.
60. In addition to updated information on malaria transmission and outbreaks in intestinal diseases due to warmer climate, new research on the dynamics of human mortality and maternity health from climate-induced factors was conducted under *Human health* analysis in SNC. Based on the results from vulnerability assessment on

¹¹ The trend on climate change data on some observation stations was updated until 2005.

¹² This means that an analysis covered all glacial areas of the country (Pamir-Alai, Gissar-Alai, Pyanj river basin).

natural resources, national economy and human health, the narrative on adaptation needs was developed for each sector.

61. All meteorological and hydrological data were received and analyzed by the Agency on Hydrometeorology. Data regarding relevant sectors were received from other relevant institutions/ministries like Ministry of energy and industry, Ministry of economy and trade, Ministry of water resources and reclamation, Ministry of transport and communication, Institute of farming, State Committee for land management and forestry, Institute of zoology and parasitology, Agrarian University. Moreover, the results of surveys and studies undertaken by international organizations and universities also made a significant contribution to *Vulnerability and Adaptation* section of SNC.
62. The main constraints faced during the preparation of the section were the *lack of sufficient* data. These referred to hydrological and meteorological observation data records due to lack of systematic monitoring after 1990s. The similar situation remains with the data on agricultural monitoring, land resources and forestry. On the other hand, the data, which was available, did not serve absolutely credible. For example, the information on human mortality from statistical reports and health department was relatively different. Also, the lack of data and access to it was observed during the research on maternity health. As the lack of sufficient and credible data was raised as the main constraint in Vulnerability and Adaptation analysis, the *lack of capacity of local experts* was another shortcoming of the process.

II.3.2 Priorities / new areas of work under TNC

63. Over the past years, the need for climate change analysis in Tajikistan was particularly highlighted both by the national specialists and international experts. In view of this, numerous assessments of the country's vulnerability to climate change impacts and risks were undertaken. The most active players in this area were UNDP, WB, ADB, EBRD, DfID, OSCE and Oxfam GB. The assessments were made available in the frameworks of adaptation programmes, initiatives and projects. Therefore, it is necessary to synergize the common efforts with relevant partners dealing with climate change issues in the country, in order to sustain the results of these assessments with the Vulnerability and Adaptation analysis under the TNC for Tajikistan.
64. Vulnerability to climate impacts will be assessed through the use of indicators: *air temperature* (seasonal, annual deviations, etc.), *atmospheric precipitation* (seasonal, annual, etc.), *glacier melt* and *snow cover*. These indicators will be used to assess priority sectors of *Natural Resources, National Economy and Human Health*. Along with these, extreme weather events (extreme temperatures, heavy rains, etc.) driven by the changes in air temperature and precipitation patterns will also serve as indicators to assess the rate and magnitude of climate-induced natural disasters.
65. In fact, Vulnerability and Adaptation analysis in TNC will be *more practical in terms of proposed measures on adaptation* and consider the recent transformations in political, environmental and socio-economic development.
66. It is expected that the research component will be a lead approach in Tajikistan's TNC. Opportunities will be explored to *modelling climate change impacts scenarios* in the long-term perspective with finer resolution, considering the orography, variety in climatic zones and landscape of the region¹³. On the other hand, the pilot analysis (for the main rivers) will be performed to find out the ways in *modelling river run-off in light of climate change by 2050-2100*¹⁴. More detailed description of the methods and approach will be identified in the project inception phase.

¹³ A strong dialogue will be established with PPCR programme, which also envisages modeling of climate risks and impacts for Tajikistan.

¹⁴ The self-assessment showed that the local capacity for this exercise is limited; the national hydrometeorological service is only able to run short-term modeling of river run-off.

67. Given the increased magnitude and rate in emerging of climate-induced natural disasters (droughts, flash floods, mudflows, etc.) in the recent years¹⁵ in Tajikistan as well as the intend of the country to cope with disaster risks¹⁶, an in-depth analysis will be conducted in this area. It is also expected that *modelling of the natural hazards in light of climate change* in the short- and long-term period in Tajikistan will be performed.
68. It is envisaged that the sectors, like *Natural Resources, National Economy and Human Health* will remain prioritized to assess vulnerability and adaptation. More detailed study will be conducted in assessing the impacts of climate change on hydropower infrastructure and facilities, as well as planning adequate adaptation. An assessment of mountainous environment to climate change risks within the natural ecosystems section will be extended. In overall, for all priority sectors, the emphasis will be put on the current conditions i.e. current *climate risk and vulnerability* and on this basis the future vulnerability will be predicted. This part of the assessment will also include an assessment of the scope and effectiveness of adaptation measures that may had been implemented.

II.4 Programmes reflecting measures to mitigate climate change

II.4.1 The baseline

69. Analysis showed that Tajikistan is the country with minimum contribution to GHG emissions. In 2007 it was placed as number 159 out of 211 countries of the world. Out of the Central Asian countries, the share of Tajikistan in total emissions constituted 2-3%, and mostly explained by the considerable use of hydropower. Nevertheless, the position of Tajikistan is to conduct all possible efforts to reduce GHG emissions and proceed with green energy policy, deploying renewable sources of energy (hydropower) at maximum.
70. The main sections under the *Programme reflecting measures to mitigate climate change in Tajikistan* included *Participation of the country in international agreements on climate change adaptation and GHG reduction, Reduction of GHG emissions in energy consumption sectors: opportunity for deployment of renewable sources of energy, promotion of sustainable transport, improvement in communal services, Reduction of GHG emissions in industrial sector: Tajik Aluminum Company, Tajik Azot Company, Tajik Him Prom, Improvement of natural carbon sinks, Enhancement of sustainable development and environmental protection policy: existing national legislative and regulatory mechanisms, national strategies and programmes, Progress in implementation of the National Action Plan for climate change mitigation, National and regional programmes on climate change, Participation of Tajikistan in international negotiations on climate change, On the way to climate neutrality.*
71. In view of initial proposal of the stakeholder team to focus on adaptation measures in the SNC rather than on mitigation policy, the in-depth abatement analysis was not performed. In parallel, the study envisaged a review of possible options to reduce CO₂ emissions in priority sectors, such as transport, communal services and assess the capacity of renewable sources of energy in the region. The way of reducing GHG emissions in industrial sector included an assessment of the main industrial companies of the country, which have already undertaken some of preventive measures and demonstrated capacity to further cut their emissions.
72. The chapter on national policy and legislative frameworks on climate change envisaged mapping analysis of existing and planned policy documents, including laws, strategies and programmes on environmental protection, sustainable development and climate change. On the other hand, review of other projects on climate change, which both directly and indirectly contributed to *raising awareness, promotion of climate policy and capacity building*. The main achievement of international and national negotiations on climate change became the *ratification of the Kyoto Protocol* under the UNFCCC in 2008.

¹⁵ Vivid examples of catastrophic flash floods, which were caused by dramatic changes in atmospheric precipitation, were witnessed in Khatlon Oblast in 2005 and 2010.

¹⁶ In 2010, the Government of Tajikistan approved the National Disaster Risk Management Strategy and its Action Plan for 2010-2015.

73. The main gaps in the section are found in the lack of information on GHG emission scenarios in mid- and long-term for Tajikistan and limited access to information on emissions of industrial companies. Moreover, poor awareness of policy makers and national officials hampered the process of rapid ratification of the Kyoto Protocol.

II.4.2 Priorities / new areas of work under TNC

74. Given the fact, that Tajikistan's SNC did not contain GHG abatement analysis, it will be a priority in the TNC. The GHG abatement analysis will be sector-specific, i.e. it will consider the following sectors: *energy, agriculture, waste, LULUCF, and industrial processes*. A special attention will be put under the *energy and transport sector, and agriculture* as significant contributors to GHG emissions in the country. The principle tool for abatement actions will be the results of GHG scenarios, which will consider existing emission trends acquired during the preparation of the third Tajikistan's GHG inventory. Assumptions will also consider present and expected socio-economic development, including population growth rate.
75. The list of abatement options proposed for the abatement scenario for each sector will be *reviewed and updated* in the light of new developments and needs. Key sources identified and updated under the GHG inventory exercise will be considered while making the selection of technology options. The impact of specific emission reduction actions / options will be measured (quantitative at the possible extend) against the baseline scenario.
76. It is expected that a package of project ideas of GHG emission reduction in priority sectors and for the key technologies will be updated in TNC in reference to the developed ones in FNC (Phase 2). Moreover, in light of recent ratification of the Kyoto Protocol, efforts will be directed to analyze an effect of Clean Development Mechanism (CDM) on economic and environmental sustainability of the country.

II.5 Other information relevant to the National Communication process

II.5.1 The baseline

77. Regarding other information relevant to the National Communication process, Tajikistan's SNC contains the separate chapters on *Research and Systematic Observations* and *Education and Awareness-Raising*. These chapters highlight these issues as crosscutting to the preparation of the National Communication.
78. The chapter on *Research and Systematic Observation* included the results of updated assessment on the state of the national hydrological, meteorological and environmental observations. In fact, the findings showed that the state of systematic observations on climate, weather and water in the country is rather weak with data gaps and uncertainties to be at the highest level. Such a situation explains possible inaccuracies, which might had been observed in vulnerability and adaptation analysis, especially when climate data served as indicators for other changing trends in natural resources, economic development and human health.
79. In SNC, initiatives on *Education and Raising Awareness* on climate change were targeted on mapping the existing policy on ecological education and information as well as discussing the findings of national participation in international dialogues and negotiations on climate change under UNFCCC and IPCC. Strengthened capacity of local experts and promotion of climate policy were among the most visible achievements under this direction. In parallel, campaigns on raising awareness among policy makers, specialists, mass media, civil society and general public, were prioritized in SNC that enhanced strong collaboration and networking with local NGOs and media.

II.5 Priorities / new areas of work under TNC

80. New areas of work on research and systematic observation will include an update with regard to systematic observation and research, especially considering activities undertaken by other international/local players¹⁷ on maintaining the National Hydrometeorological Service network. Information on Tajikistan's participation in the regional / sub-regional or global research networks and programs will be updated. The analysis of environmental monitoring in the country will also add to a new area of systematic observations.
81. A special attention under the section on Education and Raising Awareness will be put on the issue of, training, education, public awareness, capacity building and information and, the steps that Tajikistan has taken to implement *Article 6* of the UNFCCC. An attempt will be made to mainstream climate change education curriculum to existing courses in national universities and academia. On the other hand, mass campaigns (most probably some of them will be jointly implemented with NGOs and other initiatives on raising awareness on climate change) will play an important role in TNC. In overall, the key output for this activity will be the development of the Action Plan paper on education and raising awareness on climate change with reference to the needs, gaps and proposed recommendations identified within TNC and other initiatives and projects on climate change and education. It will consist of the type of activity, variety of goal groups (policy makers, experts, mass media, and civil society) and include a list of responsible actors.

II.7 Lessons learnt and good practices

82. *Climate change modelling* was a challenge for the V&A analysis under SNC, as most of GCMs, which had been used in FNC, showed inaccurate assumption in the change of air temperature and precipitation rate by 2050. This could be explained by a complex orography of the country and large-scale dimension of GCMs. Therefore, the support was provided from the international scientific institutes in applying the statistical approach while modelling the basic climatic parameters for Tajikistan. The ECHAM3/OPYC4 model suited well for the country's specific climatic and orographic conditions, demonstrating reasonable outputs.
83. National Communication process was an exercise, which favoured the *strengthening of partnership* on climate change issues both with international and local specialists. Strong linkages were established with western and southern research institutions, including hydrometeorological services, namely on modelling and data analysis, and regional partners on GHG inventory, particularly in the frames of "*Building capacities to improve the quality of the GHG inventories in East Europe and CIS*" project. All these contributed to the strengthened capacity of the local experts and delivery of more accurate research results.
84. The findings of Tajikistan's SNC served as *inputs for elaboration of other projects*. For example, the results of the last GHG inventory were used in preparation of PINs for off-grid small hydropower plants and Landfill Gas (LFG) capture and utilization at Dushanbe landfill, and project proposal on Climate Risk Management (CRM). The large-scale Pilot Programme for Climate Resilience (PPCR) also benefited from the results on SNC vulnerability and adaptation analysis, while developing the Grant Proposal and Pilot Strategy for climate resilience for Tajikistan.

¹⁷ PPCR is also expected to conduct the initiative on maintenance the national hydrometeorological observation network in 2011-2015.

Appendix B: Technical components of the project proposal

1. Background/Context

85. The Government of Tajikistan recognizes the fact and importance of climate change and its impacts and is undertaking important steps to address the challenges associated with climate change. In 1998 Tajikistan ratified the United Nations Framework Convention on Climate Change (UNFCCC) as a non-Annex I Party to UNFCCC, while the ratification of the Kyoto Protocol has come into a force in April 2009.
86. Article 4, paragraph 1(a) and Article 12, paragraph 1(a) of the UNFCCC stipulate that each Party has to make available to the Conference of the Parties (COP) a national inventory of anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol, to the extent its capacities permit, using comparable methodologies to be agreed upon by the Conference of the Parties; also a general description of steps taken or envisaged by the Party to implement the Convention; and any other information that the Party considers relevant to the achievement of the objective of the Convention and suitable for inclusion in its communication, including, if feasible, material relevant for calculations of global emission trends”.
87. The main mechanism for making this information available is submission of the national communications on climate change. The COP 2 (Geneva, 1996) adopted the Guidelines on national communications from non-Annex I Parties (Decision 10/CP.2). In conformity with the respective Guidelines, in 2001-2003 under the UNDP-GEF Project “Enabling Activities for the preparation of the First National Communication under the UNFCCC”, Republic of Tajikistan developed its First National Communication (FNC) to UNFCCC (Phases 1 and 2). The First National Communication on Climate Change informed the Conference of Parties of the trends in GHG emissions (including GHG inventory for period of 1990-1998), vulnerability of the natural resources, national economy and human health to the global climate change, as well as of planned measures, on climate change mitigation. At the same time, the Republic of Tajikistan prepared the National Action Plan for climate change mitigation approved by the Decree № 259 of the Government of the Republic of Tajikistan, as of 6 June 2003. The National Action Plan identifies the major directions and priorities of the state policy on reduction of GHG emissions and policy options for adaptation to climate change.
88. The Second National Communication (SNC) of the Republic of Tajikistan under the UNFCCC (2008) was developed with UNDP/GEF support and built on the work initiated by the FNC. The SNC presented a re-estimated GHG inventory for 1990-1998 and developed GHG inventory for new time series of 1999-2003. The base year for the second GHG inventory was the year 2000. The climate vulnerability indicators (e.g. precipitation, extreme weather events, etc) were analyzed for the period 1940s-2000 (2005). Based on this climate baseline, an assessment of vulnerability and adaptation of priority sectors, including natural resources, national economy and human health to climate change impacts was performed. In SNC, the research on global warming and its impact on glacier degradation in Tajikistan was more extensive and touched upon all glacial zones of the region (Hissar-Alai and Pamir-Alai).
89. As a non-Annex 1 country, Tajikistan does not have quantitative commitments to reduce GHG emissions. It is a country with minimum contribution to GHG emissions. In 2007 it was placed as number 159 out of 211 countries of the world. Out of the Central Asian countries, the share of Tajikistan in total emissions constituted 2-3%, and mostly explained by the considerable use of hydropower. According to the Second National GHG inventory, the highest GHG emission levels were observed in 1990, and reached 25543 Gg (more than 25 million metric tons) in CO₂e, taking into account the absorption of 23627 Gg. The lowest GHG emissions were observed in 2000 at 7396 Gg of CO₂e, considering absorption of 5518Gg. The maximum decrease of the GHG in CO₂e was observed in the energy sector (from 17 mln.tons to 2.5 mln.tons), whereas the minimum decrease was in agricultural sector (from 5 mln. tons to 4.3 mln.tons). The increase in the GHG emissions is observed starting from 2000 due to the economic growth and increase in transportation and cargo-and-passenger transportation. Currently, the emission level constitutes 35-40% as of the year 1990 level.
90. Being as a party to the UNFCCC, Tajikistan actively participates at the international and regional negotiations on climate change. Since the UNFCCC ratification, the country delegates participate at the

annual Conferences of the Parties (COP) and its subsidiary body meetings. Starting from 2006, Tajikistan has been a chair to the CACAM (Caucasus, Central Asia, Moldova and Albania) informal consultation group, negotiating the regional interests at the meetings with the UNFCCC Secretariat.

91. The Committee for Environmental Protection under the Government of the Republic of Tajikistan is responsible for environment sector management in the Republic of Tajikistan. It ensures coordination of activities with various ministries, research institutes, non-governmental organizations and other relevant departments.
92. The key institution leading and coordinating the process of the National Communications preparation is the State Administration for Hydrometeorology under the Committee of Environmental Protection of the Republic of Tajikistan. This institution serves not only for the UNDP/GEF project implementation but is responsible for the implementation process of the UNFCCC, serving as the National Focal Point for the UNFCCC and its Climate Change Center has undertaken the role of a national UNFCCC secretariat.

2. Project Strategy

93. The goal of this project is to prepare the Tajikistan's Third National Communication through building on the previous work carried out under Tajikistan's First and Second National Communication, GEF regional project on GHG inventories and other climate change related activities which lays a sound ground and baseline for developing such a product. Synergies with other climate change ongoing initiatives such as PPCR, DRM¹⁸ and CRM will be utilized. As a result of such joint strategy the components prepared under the Third National Communication will be of a higher quality than those prepared under the Second National Communication.
94. The strategy of the project is to involve expert teams already established under Tajikistan's FNC/SNC and institutions that have already built the capacity and acquired an experience in climate change thematic areas. Capacity building of new comers will be also envisaged in TNC. They will be invited to join the technical teams after passing trainings on different thematic areas. This strategy will enhance the sustainability of the teams and ensure the regular process of NC preparation. The SNC preparation will rely on existing expertise in the country. Mobilization of local experts is a strategy for sustaining the knowledge in the related areas. This will also foster internal networking of national experts. However, the project intends to hire an International Consultant (IC) on GHG abatement analysis as the latter expertise is limited at the national level. Tajikistan's experience in institutional and technical capacity building will be sustained to support the preparation of the TNC.
95. The strategy of *partnership* with governmental institutions, international organizations, academia and NGOs that was found successful from the experience with Tajikistan's SNC will be utilized and improved by bringing more crucial stakeholders on board.

3. Project Objective

96. The project will contribute to the global effort to better understand the sources and sinks of greenhouse gases, potential impacts of climate change, and effective response measures to achieve the ultimate objective of the UNFCCC, which is "to stabilize greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system".
97. The **project objective** is to enable Tajikistan to prepare and submit its Third National Communication on climate change to the CoP of the UNFCCC in accordance with its commitments as a non-Annex 1 Party (as mandated by Article 4 and 12 of this Convention).

¹⁸ UNDP project on *Capacity building for mitigating climate change induced disaster risks in Tajikistan (Climate change mitigation in disaster risk management)*.

4. Project Activities:

4.1. National Circumstances

98. Information provided on National Circumstances under Tajikistan's SNC was relevant to the thematic areas covered by National Communication, aiming at giving a clear and full picture of geography, climate, natural resources, relevant economic sectors, resources and infrastructure. The reporting time frame for the Greenhouse Gas Inventory covered the period 1999-2003 with 2000 being the base year. In Vulnerability/Adaptation section, the climate data records, which had been used for climate change analysis, referred to 1940-2000¹⁹. However, the *reporting time frame* on some areas/sectors described under SNC was around 1999-2004. At the same time, the section on policy and measures on climate change tended to describe the most updated changes and transformations in the national policy for 2007 and 2008.
99. In Tajikistan's TNC *National Circumstances* section activity will crosscut among other activities. Each team will be responsible in providing relevant national circumstances section, which will be summarized at the end. In overall, the National Circumstances chapter under Tajikistan's TNC will include updated and additional information on all relevant thematic areas. The *geographic profile* will remain the same, with maybe some minor information update on land cover and farm lands. The chapter on the *climate profile* will be updated with recent extreme weather events and data on temperature and precipitation for the period 1980-2010. As per the *natural resources* the majority of the updated information will be provided on pastures and land use change along with the most recent legal and policy framework. The review and update of the information on *economic and sector profile* will mainly consist on the update regarding the newly adopted policy documents, programmes and strategies aimed at sustainable development, socio-economic development and poverty reduction. Update of the information on population and employment along with new subsections on public health and education will also compliment Tajikistan's TNC.

Output 4.1.1: National circumstances reviewed, updated and described.

Activities

1. *Validate the gaps of information* identified under stocktaking exercise in the light of recent /new developments, if any. Responsible party: DPM (PM), Team Leaders (TLs) and National Experts (NEs).
2. *Identify the respective sources of information* and establish links to get these data as necessary. Responsible party: DPM, TLs and NEs.
3. *Collect data and information* from different sources in the course of the project implementation. Responsible party: DPM, TLs and NEs.
4. *Fill the gaps, update and add the new information* in accordance to the TORs for National Circumstances section of the Tajikistan's TNC. Responsible party: NPM, TLs and NEs.
5. *Draft national circumstances sections* that would be respectively relevant to each thematic area. Responsible party: TLs and NEs.
6. *Circulate the National Circumstances section for comments* and incorporate them into the report. Responsible party: DMP.
7. *Finalize the National Circumstances section* under the TNC. Responsible party: PM.

4.2: GHG inventory:

100. Tajikistan's second inventory covered 9 GHG gases with direct greenhouse effect, including, CO₂, CH₄, N₂O and perfluorocarbons (CF₄ and C₂F₆) and indirect greenhouse effect, including CO, NO_x, NMVOC and SO_x.

¹⁹ The trend on climate change data on some observation stations was updated until 2005.

Estimates of *key sources* have been provided as well. The reporting time frame for the second GHG inventory was 1999-2003, which envisaged the re-estimation of the first GHG inventory for 1990-1998 performed within the First National Communication in line with rechecked data and statistics. The base year for the Second GHG inventory was the year 2000.

101. The gaps in data for the majority of Tajikistan's emission categories were the main constraints for the preparation of the accurate GHG inventory. These included: *mobile combustion* and *fuel combustion in industry*, namely because of the absence of the national energy balance accounting since 1990s. In agricultural activity, the lack of data and statistics referred to *enteric fermentation* and *rice cultivation*. Another factor that complicated the process of inventory was inaccessibility to data, particularly on *fuel import*, *number of vehicles* and *industrial production*. The category on solid waste considered the calculations of GHG emissions in urban cities, as collection of emission for rural areas was impossible due to dispersion of waste pits along the vast territories or their temporary storage in small non-managed pits.
102. The third Tajikistan's GHG inventory will cover the reporting time frame for 2004-2009 with the base year of 2005. A special attention will be given to the key source categories and a sensitivity analysis will be undertaken to see how/whether the key sources have changed. Priority will be given to the activity data, which made constraints in the previous GHG inventory, including the data on *mobile combustion* and *fuel combustion in industry*, *enteric fermentation* and *rice cultivation*, etc. Based on availability of data, relevant re-estimation of GHG emissions for the second GHG inventory will be made.

Output 4.2.1: The GHG inventory team maintained and strengthened, and methodologies for GHG inventory estimates analyzed, selected and validated.

Activities:

1. *Identify and mobilize national experts in targeted sectors and areas of relevance.* Responsible party: DPM and TL;
2. *Review the existing information on the first and second GHG inventory already archived and documented.* Responsible party: DPM, TL, NEs;
3. *Identify all new sources of information for filling data gaps.* Responsible party: TL, NEs;
4. *Analyze the acceptability of the available methodologies of estimates under the Tajikistan's specific conditions for each category.* Responsible party: TL, NEs.

Output 4.2.2: GHG inventory data collected

Activities:

1. *Review available activity data already archived under the FNC, SNC and GEF regional project on GHG inventories that are already archived.* Responsible party: TL, NEs;
2. *Identify new activity data needed for estimates of GHG emissions for 2004-2009.* Responsible party: TL, NE;
3. *Identify possible sources of data for estimates of GHG emissions for 2004-2009.* Responsible party: TL, NEs;
4. *Collect the necessary activity data from the available sources.* Responsible party: TL, NEs.
5. *Identify data gaps, if available.* Responsible party: TL, NEs.

Output 4.2.3: A completed national inventory of anthropogenic greenhouse gas emissions by sources and removals by sinks for 2005 developed. Time series for 2004-2009 developed.

Activities:

1. *Re-estimate GHG emissions inventory for the base year 2000 under SNC.* Responsible party: DPM, TL, NEs;
2. *Estimate the GHG emissions inventory for 2005 and develop time series for 2004-2009.* Responsible party: TL, NEs;
3. *Prepare a draft inventory of anthropogenic greenhouse gas emissions by sources and removals by sinks for 2005 and time series for 2004-2009 following the guidelines adopted by CoP.* Responsible party: DPM, TL, NEs;
4. *Develop key sources analysis (year 2005) and sensitivity analysis (years 2004-2009) as guided by IPCC GPG.* Responsible party: TL, NEs;
5. *Develop key sources of GHG inventory for 2005.* Responsible party: DPM, TL, NEs;
6. *Undertake uncertainty assessment as guided by IPCC methodologies.* Responsible party: TL, NEs;
7. *Circulate the inventory for internal and external peer review.* Responsible party: DPM, TL, NEs;
8. *Organize a national workshop to present findings from the third national GHG inventory (comments/if any, will be received).* Responsible party PM, TL;
9. *Incorporate comments received from the review process.* TL, NEs;
10. *Finalize the inventory to be submitted as a part of the TNC of Tajikistan.* DPM, TL, NEs.
11. *Archive activity data, emission factors and estimates to the template developed under the second national GHG inventory.* Responsible party: TL, NEs.

4.3: Programmes containing measures to facilitate adequate adaptation to climate change

103. Tajikistan's second analysis on Vulnerability and Adaptation touched upon *Climate change indicators and trends*: air temperature, precipitation, snow stock, extreme weather events, aridity and droughts, climate change forecast; impacts of climate change on *Natural resources*: glaciers, water resources, natural ecosystems, forests and species, land resources; *Economic development*: water resources and management, agriculture; and *Human health*.
104. Climate parameters, which were used in *Climate change indicators*, included observations data records from 30 meteorological stations and gauges located in different climatic zones of the country. The time frame covered the period from 1940 to 2000²⁰. Meanwhile, 15 meteorological stations were used to analyze changes in snow stock. Expected trends of climate change by 2030 were generated by Potsdam Institute for climate impact research (Germany), which applied statistical model ECHAM3/OPYC4. In parallel, the comparative analysis of actually observed climate data (air temperature and atmospheric precipitation) with reference to projected outputs of Global Circulation Models (GCM), which had been used within the FNC, was performed.
105. All meteorological and hydrological data were received and analyzed by the Agency on Hydrometeorology. Data regarding relevant sectors were received from other relevant institutions/ministries like Ministry of

²⁰ The trend on climate change data on some observation stations was updated until 2005.

energy and industry, Ministry of economy and trade, Ministry of water resources and reclamation, Ministry of transport and communication, Institute of farming, State Committee for land management and forestry, Institute of zoology and parasitology, Agrarian University. Moreover, the results of surveys and studies undertaken by international organizations and universities also made a significant contribution to *Vulnerability and Adaptation* section of SNC.

106. The main constraints faced during the preparation of the section were the *lack of sufficient* data. These referred hydrological and meteorological observation data records due to lack of systematic monitoring after 1990s. The similar situation remains with the data on agricultural monitoring, land resources and forestry. On the other hand, the data, which was available, did not serve absolutely credible. For example, the information on human mortality from statistical reports and health department was relatively different. Also, the lack of data and access to it was observed during the research on maternity health. As the lack of sufficient and credible data was raised as the main constraint in Vulnerability and Adaptation analysis, the *lack of capacity of local experts* was another shortcoming of the process.
107. In the course of the stocktaking, the team agreed to specify an approach in Vulnerability and Adaptation analysis in TNC. It is expected that the research component will be a lead one in Tajikistan's TNC. Opportunities will be explored to *modelling climate change impacts scenarios* in the long-term perspective with finer resolution, considering the orography and landscape of the region²¹. On the other hand, the pilot analysis (for the main rivers) will be performed to find out the ways in *modelling river run-off in light of climate change by 2050-2100*²².
108. Given the increased magnitude and rate in emerging of climate-induced natural disasters (droughts, flash floods, mudflows, etc.) in the recent years in Tajikistan as well as the intend of the country to cope with disaster risks, an in-depth analysis will be conducted in this area. It is also expected that *modelling of the natural hazards in light of climate change* in the short- and long-term period in Tajikistan will be performed.
109. It is envisaged that the sectors, like *Natural Resources, National Economy and Human Health* will remain prioritized to assess vulnerability and adaptation. An analysis of priority sectors will envisage existing trends in climate change impacts and foresee future risks associated with climate change (based on climate and water scenarios and findings of expected climate-induced natural hazards). More detailed study will be conducted in assessing the impacts of climate change on hydropower infrastructure and facilities, as well as planning adequate adaptation. An assessment of mountainous environment to climate change risks within the natural ecosystems section will be extended. In overall, for all priority sectors, the emphasis will be put on the current conditions i.e. current *climate risk and vulnerability* and on this basis the future vulnerability will be predicted. The expert assessments will be the main approach of such a prediction, which will also include an evaluation of the scope and effectiveness of adaptation measures that may had been implemented.
110. In fact, Vulnerability and Adaptation analysis in TNC will be *more practical in terms of proposed measures on adaptation* and consider the recent transformations in political, environmental and socio-economic development of the country.

Output 4.3.1: Specific approach and methods to be used in Vulnerability and Adaptation analysis identified.

Activities

1. *Review pertinent assessments and analysis performed on Vulnerability and Adaptation* to climate change in the region and nation-wide. Responsible party DPM, TL, and NEs;

²¹ A strong dialogue will be established with PPCR programme, which also envisages modeling of climate risks and impacts for Tajikistan.

²² The self-assessment showed that the local capacity for this exercise is limited; the national hydrometeorological service is only able to run short-term modeling of river run-off.

2. *Decide on the mode and range of the assessment: qualitative versus quantitative. Decide on the approach and methods to be used for the assessment*²³. Responsible party PM, TL, and NEs;
3. *Identify the type and scope of data and information needed to use the above methods.* Responsible party PM, TL, and NEs;
4. *Review the policy process and development context for the selected area*²⁴ in order to explore how adaptation measures can be introduced into decision-making process and what is the best way of addressing them²⁵. Responsible Party: DPM, TL, NEs;
5. *Collect and synthesize the necessary data and information.* Responsible party: TL, and NEs.

Output 4.3.2: Climate direct and indirect indicators to assess vulnerability and adaptation of priority sectors to climate change impacts developed.

Activities

1. *Identify respective indicators (air temperature, atmospheric precipitation, snow cover and stock, extreme weather events) for the climate baseline with a time frame period referencing to 1980-2010.* Responsible party PM, TL, and NEs;
2. *Explore an opportunity in modelling climate impact scenarios by 2050-2100.* Responsible party PM, TL, and NEs;
3. *Explore an opportunity in developing river run-off models in light of climate change by 2050-2100*²⁶. Responsible party PM, TL, and NEs;
4. *Explore an opportunity in modelling of the natural hazards in light of climate change in the short- and long-term period.* Responsible party PM, TL, and NEs.

Output 4.3.3: Vulnerability and Adaptation in priority sectors assessed

Activities

1. *Identify priority sectors on natural resources, national economy and human health against which assessment to vulnerability to climate impacts and risks will be assessed.* Responsible party PM, TL and NEs;
2. *Assess current vulnerability of climate and priority sectors.* Responsible party TL and NEs;
3. *Map out any previous/present adaptation experience under priority sector, if available.* Responsible party DPM, TL and NEs;
4. *Develop the paper of practical measures on adaptation in priority sectors with reference to existing national policy, economic development and measures that have been already undertaken.* Responsible party DPM, TL and NEs.

²³ This will be finally defined in the project inception phase.

²⁴ This will be echoed with an assessment performed for National Circumstances on each thematic area.

²⁵ Especially while developing a list of practical measures on adaptation in priority sectors.

²⁶ The self-assessment showed that the local capacity for this exercise is limited; the national hydrometeorological service is only able to run short-term modeling of river run-off.

Output 4.3.4: Chapter of Vulnerability and Adaptation (V&A) analysis under Tajikistan's TNC completed

Activities

1. *Develop the draft chapter of the V&A.* Responsible party DPM and TL;
2. *Circulate the draft chapter of V&A for internal review and comments.* Responsible party DPM, TL;
3. *Circulate the draft chapter of V&A for external peer review and comments.* Responsible party DPM;
4. *Organize a national workshop to highlight findings from the V&A analysis and get more comments.* Responsible party PM, TL;
5. *Finalize the V&A chapter to be submitted as a part of the TNC of Tajikistan.* Responsible party DPM, TL, NEs;
6. *Archive and document all the V&A related data, information and estimates.* Responsible party DPM, TL.

4.4. Programmes reflecting measures to mitigate climate change

111. Analysis showed that Tajikistan is the country with minimum contribution to GHG emissions. In 2007 it was placed as number 159 out of 211 countries of the world. Out of the Central Asian countries, the share of Tajikistan in total emissions constituted 2-3%, and mostly explained by the considerable use of hydropower. Nevertheless, the position of Tajikistan is to conduct all possible efforts to reduce GHG emissions and proceed with green energy policy, deploying renewable sources of energy (hydropower) at maximum.
112. In view of initial proposal of the stakeholder team to focus on adaptation measures in the SNC rather than on mitigation policy, the in-depth abatement analysis was not performed. In parallel, the study envisaged a review of possible options to reduce CO₂ emissions in priority sectors, such as transport, communal services and assess the capacity of renewable sources of energy in the region. The way of reducing GHG emissions in industrial sector included an assessment of the main industrial companies of the country, which have already undertaken some of preventive measures and demonstrated capacity to further cut their emissions.
113. The chapter on national policy and legislative frameworks on climate change envisaged mapping analysis of existing and planned policy documents, including laws, strategies and programmes on environmental protection, sustainable development and climate change. On the other hand, review of other projects on climate change, which both directly and indirectly contributed to *raising awareness, promotion of climate policy and capacity building*. The main achievement of international and national negotiations on climate change became the *ratification of the Kyoto Protocol* under the UNFCCC in 2008.
114. Given the fact, that Tajikistan's SNC did not contain GHG abatement analysis, it will be a priority in the TNC. The GHG abatement analysis will be sector-specific, i.e. it will consider the following sectors: *energy, agriculture, waste, LULUCF, and industrial processes*. A special attention will be put under the *energy and transport sector, and agriculture* as significant contributors to GHG emissions in the country. The principle tool for abatement actions will be the results of GHG scenarios, which will consider existing emission trends acquired during the preparation of the third Tajikistan's GHG inventory. Assumptions will also consider present and expected socio-economic development, including population growth rate. The list of abatement options proposed for the abatement scenario for each sector will be *reviewed and updated* in the light of new developments and needs. Key sources identified and updated under the GHG inventory exercise will be considered while making the selection of technology options. The impact of specific emission reduction actions / options will be measured (quantitative at the possible extend) against the baseline scenario.
115. It is expected that a package of project ideas of GHG emission reduction in priority sectors and for the key technologies (that were developed for the Phase 2 FNC) will be updated with new ones in TNC. Moreover,

in light of recent ratification of the Kyoto Protocol, efforts will be directed to analyze an effect of Clean Development Mechanism (CDM) on economic and environmental sustainability of the country.

Output 4.4.1: GHG emission scenarios by 2050 developed. On the base of scenarios, GHG abatement analysis conducted.

Activities:

1. *Consider estimates of GHG inventory for the base year 2005 and emission trend for 2004-2009*, which will serve as a baseline for the analysis of GHG emissions towards 2050. Responsible party: IC and NEs;
2. *Collect all relevant macro-economic data and set assumptions* to be made for the purpose of emission scenario development. Responsible party: DPM and NEs;
3. *Process the collected data and make them ready* as required by the software that are going to be utilized for the purpose of scenario generator. Responsible party: DPM and NEs;
4. *Develop GHG emission scenario* for the main categories, with a particular focus on energy, transport and agriculture, for 2005-2050 using IPCC recommended software. Responsible party: IC and NEs;
5. *Develop GHG abatement measures and technology options* with a focus on energy, transport and agriculture categories. Responsible party: IC, DPM and NEs;
6. *Assess new (if any) and review existing national policy and legal frameworks of climate change mitigation* with all relevant Ministries and departments. Responsible party: PM, NEs and Legal Specialist.
7. *Analyze an effect of Clean Development Mechanism (CDM) under the recently ratified Kyoto Protocol* on economic and environmental sustainability of the country. Responsible party: PM, National Experts and Legal Specialist.
8. *Update the package of project ideas and proposals developed under FNC (Phase2) with new ones.* Responsible party: DPM, NEs.

Output 4.4.2: A GHG abatement analysis completed for the period 2005-2050.

Activities

1. *Develop the draft chapter* of the GHG abatement analysis. Responsible party DPM and IC;
2. *Circulate the draft chapter of GHG abatement analysis for internal review and comments.* Responsible party DPM;
3. *Circulate the draft chapter* of GHG abatement analysis for external peer review and comments. Responsible party DPM;
4. *Receive comments and reflect* in the document. Responsible party PM, DPM, NEs;
5. *Organize a national workshop* to highlight findings from the GHG abatement analysis and get more comments. Responsible party PM, DPM;

6. *Finalize the GHG abatement analysis chapter* to be submitted as a part of the TNC of Tajikistan. Responsible party DPM and NEs;
7. *Archive and document all the GHG abatement analysis related studies and estimates.* Responsible party DPM and NEs.

4.5 Other information considered relevant to the achievement of the objective of the Convention

116. In SNC, initiatives on *Education and Raising Awareness* on climate change were targeted on mapping the existing policy on ecological education and information as well as discussing the findings of national participation in international dialogues on climate change under UNFCCC and IPCC. Strengthened capacity of local experts and promotion of climate policy were among the most visible achievements under this direction. In parallel, campaigns on raising awareness among policy makers, specialists, mass media, civil society and general public, were prioritized in SNC that enhanced strong collaboration networking with local NGOs and media.
117. A special attention under the section on Education and Raising Awareness in Tajikistan's TNC will be put on the issue of, training, education, public awareness, capacity building and information and, the steps that Tajikistan has taken to implement *Article 6* of the UNFCCC. An attempt will be made to mainstream climate change education curriculum to existing courses in national universities and academia. On the other hand, mass campaigns (most probably some of them will be jointly implemented with NGOs and other initiatives on raising awareness on climate change) will play an important role in TNC. In overall, the key output for this activity will be the development of the Action Plan paper on education and raising awareness on climate change with reference to the needs, gaps and proposed recommendations identified within TNC and other initiatives and projects on climate change and education. It will consist of the type of activity, variety of goal groups (policy makers, experts, mass media, and civil society) and include a list of responsible actors.

Output 4.5.1: The information considered relevant to the achievement of objective of the UNFCCC compiled and synthesized

Activities:

1. Collect, synthesize and provide the overall *information relevant to the Article 6 activities.* Responsible Party: DPM, NEs, TLs.
2. Collect, synthesize and provide information on the *research and systematic observation systems.* Responsible Party: TL of V&A, NEs.
3. Collect, synthesize and provide *information on ongoing programs and projects relevant to climate change and National Communication process.* Responsible Party: DPM, TLs, NEs.
4. Develop the Action Plan paper on education and raising awareness on climate change with reference to the needs, gaps and proposed recommendations identified within TNC and other initiatives and projects on climate change and education. Responsible Party: PM, TLs, NEs.
5. *Summarize all the information* collected in a draft chapter. Distribute it for *review and comments.* Responsible Party: Responsible Party: DPM, TLs, NEs.
6. Incorporate comments to the above draft chapter and *finalize* it as part of the Tajikistan's TNC. Responsible Party: Responsible Party: PM, TLs, NEs.

Output 4.6.1: TNC prepared, translated, submitted and disseminated

Activities:

1. Compile a draft of the Tajikistan's Third National Communication;
2. Circulate the draft for comments and review and incorporate them;
3. Endorse the document by the PSC;
4. Finalize the Third National Communication of Tajikistan;
5. Translate the Third National Communication of Tajikistan;
6. Publish the Tajikistan's TNC to the CoP of UNFCCC;
7. Prepare e-copies of Tajikistan's TNC in CD-ROMs;
8. Submit officially the Tajikistan's TNC to the CoP of the UNFCCC;
9. Organize a national workshop to launch and present the findings of the Tajikistan's TNC;
10. Launch the report in a side event during the CoP /Subsidiary Body sessions.

The overall findings of the analysis on thematic areas will be reflected in Tajikistan's TNC report, which will follow the structure and guided by UNFCCC principles. The findings on each thematic area will be presented in a national workshop and then finalized in cooperation with national experts and consultants. It is expected that the procedures of submission Tajikistan's TNC to the UNFCCC Secretariat and CoP/MoP will follow the same ones used for the SNC. TNC publications along with soft version copies will be available on side events and in the national Climate Change Resource Centre.

5. Institutional Framework for Project Implementation

118. This exercise will utilize the National Implementation Modality with an Implementing Agency of the State Administration for Hydrometeorology (Tajik Hydromet) of the Committee for Environmental Protection under the Government of the Republic of Tajikistan. Given that responsibility, the Tajik Hydromet with its Climate Change Centre will be responsible for the overall oversight and management of the project, primarily with regard to the achievement of the outputs (results), impact and objectives. In parallel, the Tajik Hydromet will be accountable to UNDP for the use of project resources.
119. The Project Implementation Unit (PIU) will consist of three permanent project staff. The Project Manager (PM), to be hired in full-time basis, will coordinate the day-to-day project execution activities and will be responsible for meeting of the objectives of the project. The Deputy Project Manager (DPM) will support the PM as required on technical and operational issues related to project implementation. Finally, an Administrative and Finance Assistant (AFA) will be recruited. Under the direct supervision of the PM, AFA will be responsible for administrative and financial issues, and will get support from the existing UNDP administration. In addition, the PIU will be assisted by three technical teams, respectively GHG inventory team, GHG abatement team and V&A team which, will perform technical tasks and activities proposed under this project. There will be two Team Leaders (TL), namely in GHG inventory and V&A. International Consultant (IC) will be hired on a short-term basis to conduct GHG abatement analysis in close cooperation with the National Experts' team on GHG inventory. It is expected that this exercise will involve the majority of the local experts who have been previously engaged under Tajikistan's First and Second National Communications. However, new comers are expected to enter the technical teams as well, as trainings on thematic issues will be performed on a regular basis. National experts will be coming from key relevant sectors including government agencies, academic institutions, NGOs, and private sector as necessary.
120. The Project Steering Committee (PSC) will be the highest policy-level body, which will continue to provide support and guidance to the implementation of the project and support this exercise by ensuring that the results will be disseminated to, and validated by, all the relevant stakeholders in Tajikistan. In SNC, the PSC was updated on the basis of the established board (FNC, 2000). It is expected that the composition of the PSC will be updated in the TNC as well. This will be done at the start up phase of the project. The members

of the PSC will be from, but not limited to the Committee for Environmental Protection, Ministry of Energy and Industry, Ministry of Agriculture, Academia, UNDP Tajikistan, NGOs.

121. During the project inception phase project key personnel will be contracted including a full-time Project Manager (PM), Deputy Project Manager (DPM) and Administrative & Finance Assistant (AFA). Terms of Reference for the PM are provided in **Appendix D**. At the same time, during the inception phase, technical teams will be also established. Short-term experts will be recruited as and when needed by the project, possibly including Team Leaders for each thematic area and technical experts as member of the teams. Terms of Reference for the International Consultant (IC) on GHG abatement analysis are provided in **Appendix D**. PSC composition will also be updated during the inception phase. Once the project implementation mechanisms is in place a *project inception workshop* will be organized aiming at presenting objectives and activities of the project; clarifying the link between previous, ongoing and future climate change activities; identifying possible synergies with other projects; finalizing the project work plan and TORs. This workshop will also serve as raising awareness exercise about climate change issues for the invited stakeholders.
122. A scoping meeting will also be organized for the national experts. The TORs of the TNC which will be based on structure and content of the each chapter of the Tajikistan's TNC will be drafted at the start up phase of the project and discussed during a scoping meeting with Team Leaders and national experts.
123. At the start of the project, the participation, networking and dissemination mechanisms, which had been used in the SNC, will be maintained and further strengthened. Climate Change Resource Centre (established in 2004) will be further upgraded with relevant information received from UNFCCC, UNDP/GEF NCSU, IPCC, CC: INFO, CC: TRAIN, UNDP. The relevant information will be also reflected and regularly updated in the national climate change website²⁷. In addition links to ongoing similar project in other countries, especially from the region/sub-region will help to gain information to support the implementation of this project and to learn from experiences of similar exercises elsewhere. These links will also help to identify potential international partners to cooperate with, either on this project or on the eventual follow-up projects, dealing with the implementation of the identified response measures.

6. Assessing project impact

124. The project will contribute to achievement of the UNFCCC objectives, as well as implementation of priority measures for environmental security of Tajikistan. It will also increase efforts in sharing the information and enhancing the cooperation with stakeholders from governmental, non-governmental, public and private organizations. The findings of the project will enhance the evidence base for climate change risks and impacts on priority sectors (natural resources, national economy and human health) of Tajikistan. The strengthened evidence base, which will be mostly relied on qualitative rather than quantitative approach in TNC, will in turn provide an opportunity to mainstream climate adaptation and mitigation activities in national development policy and programmes²⁸. In parallel, the evidence base will be fully used for the preparation of other projects and programmes on climate change and sustainable development.

²⁷ In the course of SNC, Tajik Hydromet, project implementing agency, set-up the national website, where climate change issues were adequately reflected: www.meteo.tj

²⁸ The recent analysis of PPCR team showed that climate change issues are not taken into account in most Tajikistan's national development policies, plans and programmes. At the same time, national and interdepartmental plans also do not provide a strategy to deal with existing climate change stress.

Appendix C: Risk Log

#	Description	Date Identified	Type	Impact & Probability	Countermeasures / Mngt response
1	Lack of relevant expertise and capacities in the local market may result in delay of required outputs and distortion of targeted deadlines	15/01/2011	Operational	The occurrence of the risk will delay implementation of the project P=3 I=3	Implementation of project activities and recruitment of relevant national expertise is monitored and actions will be identified if the lack of expertise is affecting the timely implementation of the project
2	Lack of data, information and analysis to identify sectors, industries and GHG reduction opportunities	15/01/2011	Political	The occurrence of the risk will reduce the project impact P=3 I=3	The related institution(s) will be contacted early on to establish a partnership with the project and involved into designing of policies.
3	Project successes and lessons learnt are not maintained after the project.	15/01/2011	Organizational Strategic	The occurrence of the risk will force the downscaling of the activities P=3 I=3	The project strategy focuses on building the national capacities in assessing climate change impacts and integrating them into national policies. The successes and lessons learnt will be regularly documented.

Appendix D: Terms of Reference for main staff of the project

1. TOR for the Project Manager

In consultation with the Project Steering Committee (PSC), the Project Manager (PM) is responsible for day-to-day management, co-ordination and supervision of the implementation of the above project. Specifically, his/her responsibilities are but not limited to the following:

- Supervises and ensures the timely implementation of the project relevant activities as scheduled in the working plan
- Prepares a detailed work plan for the project and draft terms of reference for the subcontracts (in consultation with the PSC and UNDP);
- Compiles the scope and content of the overall TNC report and relevant sections in consultation with Team Leaders;
- Develops the scope of the work and TORs and other procurement documentation required to identify and facilitate recruitment of experts and consultants;
- Identifies and hire/subcontract the national experts and institutions (in consultation with the PSC and UNDP);
- Supervise project support staff national consultants who are recruited to provide technical assistance
- Organizes and supervise the workshops and training needed during the project;
- Liaises with the relevant ministries, national and international research institutes, NGOs, and other relevant institutions in order to involve their staff in project activities, and to gather and disseminate information relevant to the project;
- Prepares periodic progress reports of the project;
- Control the expenditures and otherwise ensure adequate management of the resources provided for the project;
- Summarizes and synthesizes the results of the project;
- Identifies the follow up activities and mobilizes other resources at the extend possible;
- Identifies and ensures synergy of the TNC with other relevant ongoing / new projects.
- Finalizes the Third National Communication of Tajikistan along with the government personnel and national experts;
- Ensures that the TNC process is in the line with guidance provided by the CoP of the UNFCCC and contributes to the improvement of the UNFCCC reporting process.
- Oversees the maintenance and update of the Tajikistan's climate change web page;
- Collaborates with all relevant stakeholders and the Project Steering Committee and other partners to ensure their involvement in the TNC

Qualifications and Experience

- Preferably master's degree in environment-related studies and other related disciplines;
- Good understanding of Tajikistan's environment/development issues as well as the three thematic areas under investigations;
- At least six to eight years experience relevant to the project;
- Excellent communication (Written and Oral) Skills;
- Demonstrated experience in project management;
- Expertise in putting together costed, results-oriented action plans;
- Demonstrated experience in working with government, donors and the United Nations system;
- Appropriate experience working with government structures at local levels, and working with NGOs and private sector;
- Substantial involvement in the preparation of the national GHG inventory and National Communications is mandatory;
- Substantial experience in Government and in inter-departmental procedures preferred;
- Familiarity with international negotiations and processes under the UNFCCC preferred;
- Advanced user of word processing and climate change modelling work.

- Fluency in Tajik, Russian and English

2. TOR for the Deputy Project Manager

Under the direct supervision of the Project Manager, the Deputy Project Manager will carry out the following duties and responsibilities:

- Work closely with the international/national experts to undertake analysis and activities of thematic areas covered by the project;
- Support the preparation of project progress reports, information releases, as well as monitoring and review reports in accordance with UNDP/GEF monitoring and evaluation rules and procedures;
- Support preparation of project budget revisions and administrative arrangements as required by UNDP/GEF procedures;
- Accompany leading UNDP CO staff on their annual monitoring visits to selected project sites;
- In cooperation with the PM develop a suitable project exit strategy during the third year of the project and leading experts, and present it for approval to the PSC;
- Manage specific technical assistance towards stakeholders, local authorities and civil society organizations, provided with the support of national and foreign consultants;
- Design and manage information and raising awareness campaigns together with local stakeholders civic partners and media;
- Prepare appropriate monitoring plans to ensure timing and quality of implementation;
- Establish detailed programs for the coordination of site activities;
- Carry out other duties as required by management.

Qualification and experience:

- University degree in energy, environmental management or other field relevant to the project
- At least 5 years of working experience in the area of sustainable natural resource management and/or education;
- Good general knowledge about Tajikistan, Central Asia and the development context;
- Demonstrated experience in capacity development initiatives in the country and/or region;
- Excellent computer skills;
- High sense of responsibility, willingness to take initiative, practicality and creativity, excellent communication skills and team spirit are important assets;
- Fluency in Russian and Tajik; knowledge of English is an advantage.
- Affinity with the mandate and role of the United Nations is an asset.

3. TOR for Administrative and Financial Assistant

Under the direct supervision of the Project Manager, the Admin./Finance Assistant will carry out the following duties and responsibilities:

- Manages all financial issues within project funds and all finance and administrative records are properly collected and kept safely for audit;
- Prepares payment requests and financial statements. Prepares local payroll, travel authorizations and claims for project personnel;
- Assists in preparation of AWP, project budget revisions and administrative arrangements as required by UNDP/GEF procedures; prepares budget forecasts and checks financial records, conformity of activities, expenditure with work plans; follows up on activities, and monitors advance balances of resources disbursed;
- Verifies availability of funds for project activities, recommending and effecting necessary budget line changes;
- Assists to Project Manager in day-to-day project management in terms of personnel, sub-contracts, procurement, study tours, missions and other related events to facilitate project implementation;
- Monitors project budget utilization/implementation in lieu with the Annual Work Plan;
- Ensures that project assets (vehicles, computers, etc) are properly maintained and inventory records are kept safely;
- Prepares all travel related arrangements in lieu with UNDP Rules and Regulations;
- Manages Petty Cash in lieu with UNDP Rules and Regulations;
- Conducts procurement processes in lieu with UNDP Rules and Regulations;
- Provides to logistical arrangements related to workshops/trainings;
- Participates in the recruitment process: assists UNDP HR unit in posting announcements of vacant posts related to the project, maintains roster of candidates in accordance with work requirements, facilitates UNDP HR unit in compiling all documentation related to project personnel upon request;
- Maintains HR related record keeping system (contracts, attendance records/leave records, travel authorizations, medical certificates, etc);
- Administers timely office supplies (procurement, etc.);
- Provide administrative, logistical and financial support to project implementation in line with UNDP rules and procedures;
- Maintains files and keep information and reference material in a manner, which allows easy reference and retrieval.
- Performs other duties as required.

Qualification and experience:

- University degree in Business Administration, Economics, Management or other related field;
- At least 3 years of working experience in the area finance and administration, preferably with an international organisation;
- Strong computer skills, especially spread sheets;
- Fluency in English, Russian and Tajik;
- High sense of responsibility, excellent communication skills and ability to work in the team;
- Affinity with the mandate and role of the United Nations.

4. TOR for International Consultant on GHG emission scenario and GHG Abatement Analysis

The International Consultant on GHG emission scenario and GHG abatement analysis will work in consultation with Team Leader on GHG inventory and National Experts, under the guidance and supervision of the Project Manager. Specifically, his/her responsibilities are but not limited to the following:

- Consider estimates of GHG inventory for the base year 2005 and emission trend for 2004-2009, which will serve as a baseline for the analysis of GHG emissions towards 2050;
- In consultation with the PM decide on methodologies for the elaboration of scenarios for sector-specific GHG emissions;
- Lead and oversee the scenario development and update;
- Develop GHG emission scenario for the main categories, with a particular focus on energy, transport and agriculture, for 2005-2050 using IPCC recommended software;
- Prepare a detailed work-plan for GHG abatement analysis on the basis of the overall project work plan;
- Develop GHG abatement measures and technology options with a focus on energy, transport and agriculture categories;
- Provide periodic progress report to the PM on the GHG abatement analysis thematic area;
- Organize the scheduled consultations/workshops and ensure their success;
- Ensure synergy with other relevant projects and initiatives and transfer the lessons learned and best practices of other countries, which had undertaken similar exercise;
- Ensure the timely and effective management of the activities as scheduled;
- Incorporate comments received from the internal and external review process.
- Draft the GHG Abatement Analysis chapters along with the respective part of executive summary;
- Finalize the GHG abatement report under the TNC with addressed comments.

Qualifications and experience

- An advanced degree in energy, environmental management or other field relevant to the project;
- A minimum of 5 years of working experience in the area relevant to climate change;
- Substantial involvement in the preparation of the National Communications (inventory and abatement analysis);
- Good understanding of GHGs inventory process and projection;
- Demonstrable knowledge of IPCC 1996/2006, IPCC GPG, LEAP etc.
- Demonstrated ability of analytical and drafting work;
- Familiarity with computers and word processing;
- Fluency in English and Russian.

Appendix E: Stakeholders matrix

Institution	Agencies, Departments	Institutional Mandate and Relevance to the National Communications Process	Relevance to Climate Change/ reasons for inclusion	Role in the self assessment process
PUBLIC INSTITUTIONS				
Committee of Environmental Protection under the Government of the Republic of Tajikistan	General overview	<p>Committee of Environmental Protection is the main specialized governmental body responsible for implementation of state policy on environmental protection in the Republic of Tajikistan. Responsibilities of the Committee and institutions that are under its responsibility and relevant to the climate change are as following:</p> <ul style="list-style-type: none"> ▪ Drafts and implements governmental policies, strategies and action plans for environmental protection; ▪ Drafts laws, by-laws and decisions for the protection of the environment; ▪ Monitoring of the implementation of laws, by-laws, state policies and measures on environmental protection; ▪ Oversees the implementation process of all environmental conventions where Tajikistan is a Party. 	<ul style="list-style-type: none"> ▪ Committee of Environmental Protection is involved to the Project Steering Committee; ▪ Committee through its State Administration for Hydrometeorology is responsible for the preparation of National Communications to the CoP of the UNFCCC, along with the overall implementation process of the UNFCCC; ▪ The responsibility of the GEF Focal Point (Operational/Political) stands under Committee; ▪ Participates, through its department for monitoring of atmospheric air and environmental monitoring. 	<ul style="list-style-type: none"> ▪ A number of consultative meetings were held with key officials and experts of the Committee responsible for climate change issues, including the Chairman of the Committee.
	State Administration for Hydrometeorology under the Committee of Environmental Protection	<p>Administration is responsible for monitoring of the state of environment and hydro meteorological patterns. The activities that are highly relevant to the preparation of National Communications are:</p> <ul style="list-style-type: none"> ▪ Study of meteorological regime and climatic peculiarities of the territory of Tajikistan; assessment of natural and hydrometeorological disasters and extreme weather events frequency; ▪ Collection of temperature and precipitation data and archiving and storage of historical data in these areas; ▪ Research on water resources, including research on climate change impacts and vulnerability in the water resources sector; ▪ Research and cooperation with WMO that falls under the “systematic observation” section of the National Communications; ▪ Study of water-related phenomena with regard to hydrological change (including current state of glaciers, glacial lakes, snow cover, etc.); ▪ Serves as National Focal Point for the UNFCCC and provides technical support and policy advice to the Committee of Environmental Protection for its implementation process and represents Government of Tajikistan in the negotiations; ▪ Serves as National Focal Point for the IPCC; ▪ Raises general awareness and knowledge on climate change and related issues; ▪ Strengthens the dialogue, information exchange and co-operation among all the relevant stakeholders including governmental, non-governmental, academic, private sectors on climate change and related issues; ▪ Designs and implements projects related to the implementation of the UNFCCC. 	<ul style="list-style-type: none"> ▪ Main responsibility is laid for climate change and related issues in the Republic of Tajikistan. ▪ Administration is responsible for the coordination of stocktaking and preparation of the final stocktaking report and the Project Proposal for the Tajikistan’s Third National Communication to the UNFCCC. ▪ Provides technical expertise for GHG mitigation analysis and GHG inventory. ▪ Prepares inventories of GHG emissions and removals by sources; ▪ Develops scenarios of GHG emissions and proposes mitigation policies and measures; ▪ Performs assessment of vulnerability and proposes adaptation measures to the expected climate change; ▪ Prepares National Communications and arrange their submission to the CoP of UNFCCC as mandated by the CoP decisions. 	<ul style="list-style-type: none"> ▪ The Administration led and coordinated the stocktaking exercise; ▪ The Administration synthesized thematic area specific reports into the core stocktaking report. ▪ The Administration organized consultations with all national climate change relevant stakeholders in the country.

Institution	Agencies, Departments	Institutional Mandate and Relevance to the National Communications Process	Relevance to Climate Change/ reasons for inclusion	Role in the self assessment process
	Institute of Forestry under the Committee of Environmental Protection	<ul style="list-style-type: none"> ▪ Monitoring of implementation of measures related to forestry protection; ▪ Designs policies and regulations for protection of wood material from illegal cuttings; ▪ Ensures a rational use of forests and their by-products. 	<ul style="list-style-type: none"> ▪ Provides policy advice regarding the development of the LULUCF related GHG mitigation and adaptation strategies; ▪ Data provider for LULUCF category. 	<ul style="list-style-type: none"> ▪ Consulted on the stock of activities / studies related to the FNC and SNC (LULUCF) and V&A. ▪ Feedback on stocktaking report provided.
Ministry of Economic Development and Trade	General Overview	The Ministry oversees economic policies and measures, and leads formulation of the government budget. It is also in charge of monitoring of the National Development Strategy until 2015, Poverty Reduction Strategy 2010-2012. The Ministry is a coordinating structure for development of various line development plans.	<ul style="list-style-type: none"> ▪ Involved as a member of PSC for the SNC; ▪ Provides policy advice on long-term economic development and priorities. 	<ul style="list-style-type: none"> ▪ Consulted on the priority areas of economic development; ▪ Participated in National Circumstances stocktaking
	Department of Macroeconomic Analysis and Forecasting	<ul style="list-style-type: none"> ▪ Processes quarterly economic data related to national circumstances; ▪ Produces long-term economic development scenarios. ▪ Handles macroeconomic data and models that can be used in conjunction with climate modelling and modelling the effects of policies and measures. 	<ul style="list-style-type: none"> ▪ Provides policy advice and figures on long-term economic development and priorities. ▪ Potential mainstreaming of the climate change issues into key national policies and strategies. 	<ul style="list-style-type: none"> ▪ Officials of the Ministry consulted on the stock of activities / studies related to the FNC and SNC
Ministry of Agriculture	General overview	<p>The Ministry is tasked with drafting and implementation of laws, by-laws, state policies and strategies on agriculture. It also monitors the use of fertilizers and pesticides. The activities also include:</p> <ul style="list-style-type: none"> ▪ Drafting and implementation of laws, by-laws, state policies and strategies related to forestry and pasture management; ▪ Support to livestock development. <p>The Government of Tajikistan under the Resolution dated 2 July 2010 approved the work plan 'On Agriculture Reform in the Republic of Tajikistan'. The Ministry of Agriculture has been tasked to develop recommendations and set of measures towards reform of agricultural system at the local level.</p>	<ul style="list-style-type: none"> ▪ Provides policy advice on development of agriculture sector; ▪ Provides data for estimation of climate change impacts that can underpin recommendations for adaptation to climate change; ▪ Provides data on livestock to support data collection on methane emissions from enteric fermentation; ▪ Provides data on GHG emissions from soil, and agricultural sector as a whole; ▪ Participates in drafting sections related to LULUCF; ▪ Participates in drafting vulnerability and adaptation section. 	<ul style="list-style-type: none"> ▪ Consulted on the stock of activities / studies related to the FNC and SNC.

Institution	Agencies, Departments	Institutional Mandate and Relevance to the National Communications Process	Relevance to Climate Change/ reasons for inclusion	Role in the self assessment process
Ministry of Energy and Industry of the Republic of Tajikistan	General overview	<p>The Ministry as a whole is tasked with the implementation of national energy and industry related policies.</p> <p>Responsibilities of Ministry of Energy and Industry that are relevant to the climate change are as following:</p> <ul style="list-style-type: none"> • Designs, revises and regularly updates national strategies for development of energy and industry sectors; • Drafts the respective legal framework for the development of the energy and industry sectors; • Promotes private investments, domestic or foreign ones, in both energy and industry sector by creating an attractive environment climate for these investments; • Supervises and facilitates the merging of energy and industry public companies towards privatization process; • Carries out research for promotion of using of renewable energy sources; • Collects data on coal mine methane from enterprises and monitors mines. 	<ul style="list-style-type: none"> ▪ Involved as PSC member in SNC; ▪ Technical expertise on GHG mitigation analysis is provided by the Ministry of Energy and Industry; ▪ Ministry is the main data provider for energy sector, mainly from energy balance; ▪ Potential coordinator for data provision from private industrial enterprises, especially for industrial activities and wastes. 	<ul style="list-style-type: none"> ▪ Consulted on the stock of activities / studies related to the FNC and SNC. ▪ Feedback on stocktaking report provided.
	Barki Tojik	<ul style="list-style-type: none"> • Implementation of the state policies in energy sector. 	<ul style="list-style-type: none"> ▪ Implementation of the state programme on construction of small hydropower stations; ▪ Data provider for energy sector. 	<ul style="list-style-type: none"> ▪ Consulted on technical aspects and data on hydropower generation
	Institute of Hydro Power	<ul style="list-style-type: none"> • Research on small hydropower and drafting related by-laws (i.e. standardization and unification); • Research on energy efficiency and energy balance aiming at reduction of adverse impact on the environment. 	<ul style="list-style-type: none"> ▪ Technical expertise on vulnerability and adaptation 	<ul style="list-style-type: none"> ▪ Consulted on the stock of activities / studies related to the FNC and SNC. ▪ Feedback on stocktaking report provided.
	State Unitary Enterprise Tojkcement	<ul style="list-style-type: none"> • This company is the largest cement producer in Tajikistan. 	<ul style="list-style-type: none"> ▪ Potential data provider on GHG emissions 	<ul style="list-style-type: none"> ▪ Consulted on the data provision for GHG inventory
Ministry of Transport and Communications	General overview	<p>The Ministry is tasked with drafting and implementation of laws, by-laws, state policies and strategies in transport and communications sectors. The activities also include development, management, coordination, control and regulation of activities in transport complex. The Ministry is also responsible for:</p> <ul style="list-style-type: none"> ▪ Design of transport master plans for each mode of transport; ▪ Designs and implements measures for rehabilitation of road network. 	<ul style="list-style-type: none"> ▪ Provides policy advice regarding the development of transport sector; ▪ Data provider for transport category. 	<ul style="list-style-type: none"> ▪ Consulted on the stock of activities / studies related to the FNC and SNC.
Ministry of Melioration and Water Resources	General overview	<p>The Ministry is tasked with drafting and implementation of laws, by-laws, state policies and strategies in melioration and water sectors.</p>	<ul style="list-style-type: none"> ▪ Participates in the assessment of climate change impacts on water sector. 	<ul style="list-style-type: none"> ▪ Consulted on the stock of activities / studies related to the FNC and SNC.

Institution	Agencies, Departments	Institutional Mandate and Relevance to the National Communications Process	Relevance to Climate Change/ reasons for inclusion	Role in the self assessment process
Ministry of Health	General overview	<ul style="list-style-type: none"> ▪ Designs national policies, legal and institutional framework for the protection of the public health and improvement of public health services ▪ Implements policies, laws and regulations for the protection of the public health and health service. 	<ul style="list-style-type: none"> ▪ Provides policy advice regarding the development of health sector and related impact of climate change and adaptation strategy for this sectors; ▪ Potential data provider for health sector; ▪ Research on impacts of climate change on human health. 	<ul style="list-style-type: none"> ▪ Consulted on the stock of activities / studies related to the FNC and SNC; ▪ Feedback on stocktaking report provided.
State Statistics Committee	General overview	<p>The Committee is the main official data provider in the Republic of Tajikistan.</p> <ul style="list-style-type: none"> ▪ Collects, processes, analyses and disseminates statistical data related to the economy, demography, and social life; ▪ Establishes and manages the databases and statistical registries on national level, setting down statistical methodologies, maintenance collaboration in the domain of the statistics, communication with the beneficiaries, etc. 	<ul style="list-style-type: none"> ▪ Involved in PSC in the SNC ▪ Major data provider for all sectors relevant to all thematic areas covered by National Communications. 	<ul style="list-style-type: none"> ▪ Committee was consulted on data provision
	Department for Transport, Housing and Communal Services and Environment	<ul style="list-style-type: none"> ▪ Collects, process, analyses and disseminates statistical data related to the transport, housing and communal services and environment. 	<ul style="list-style-type: none"> ▪ Data provider for GHG inventory and mitigation 	<ul style="list-style-type: none"> ▪ Consulted on the stock of activities / studies related to the FNC and SNC.
State Committee on Land Resource Management, Geodesy and Cartography	General overview	<p>The Committee is tasked with drafting and implementation of laws, by-laws, state policies and strategies in land resource management (including ownership issues), cartography and geodesy.</p>	<ul style="list-style-type: none"> ▪ Involved in PSC in the SNC ▪ Can provide technical expertise in the assessment of climate change impacts on the processes of desertification and land degradation 	<ul style="list-style-type: none"> ▪ Committee consulted on provision of technical expertise on climate change impacts on desertification and land degradation
▪ PUBLIC ACADEMIA & RESEARCH INSTITUTES				
Academy of Sciences	Institute of Physics	<ul style="list-style-type: none"> ▪ Conducts scientific research and implements projects on physics. ▪ Conducts research on effects of anthropogenic factors on climate change 	<ul style="list-style-type: none"> ▪ Involved in PSC in the SNC ▪ During the FNC and SNC, the Institute conducted a research on effects of anthropogenic factors on climate change 	<ul style="list-style-type: none"> ▪ Institute of Physics is consulted on general technical issues.
Tajik State Medical University	General overview	<ul style="list-style-type: none"> ▪ Conducts scientific research and implements projects related to the impacts of climate change on human health. 	<ul style="list-style-type: none"> ▪ Can provide technical expertise on impacts of climate change on human health. 	<ul style="list-style-type: none"> ▪ Consulted on the stock of activities / studies related to the FNC and SNC; ▪ Feedback on stocktaking report provided.
INTERNATIONAL ORGANIZATIONS BASED TAJIKISTAN AND THEIR PROJECTS				

Institution	Agencies, Departments	Institutional Mandate and Relevance to the National Communications Process	Relevance to Climate Change/ reasons for inclusion	Role in the self assessment process
UNDP TAJIKISTAN	General overview	<p>The UNDP's Country Programme Action Plan (CPAP) for 2010-2015 builds upon the experience gained and progress made during the implementation of the previous programme, and in cooperation with the Government and other development partners, the UNDP will support Tajikistan's fulfillment of the Millennium Development Goals (MDG) and the objectives set out in the National Development Strategy (NDS) and Poverty Reduction Strategy (PRS), as well as the country's commitment to international conventions.</p> <p>The programs and projects within UNDP in Tajikistan are clustered in the areas of: (1) Poverty Reduction and Achievement of MDGs, (2) Reducing burden of HIV/AIDS, Malaria and Tuberculosis, (3) Good Governance, (4) Crisis Prevention and Recovery, and (5) Environment and Sustainable Development.</p>	<ul style="list-style-type: none"> ▪ UNDP holds the capacity of the Implementing Agency of all GEF funded Projects; ▪ UNDP provides technical support to the implementation process of the project. 	<ul style="list-style-type: none"> ▪ UNDP is systematically consulted by the Agency for Hydrometeorology in all steps of the stocktaking exercise; ▪ Feedback on the stocktaking report is provided by UNDP Tajikistan.
	Central Asian Climate Risk Management Programme (funded by BCPR)	<p>The objective of the project is to promote reduction of climate-related disasters and adaptation to climate change in Tajikistan and to integrate climate risk management into Tajikistan's core development policy and strategies.</p> <p>These key components of the project are:</p> <ol style="list-style-type: none"> 1. Institutional frameworks and technical capacity to manage climate change risks and opportunities in an integrated manner at the local, sub-national and national levels strengthened. 2. Climate-resilient strategies, policies and legislation in priority sectors and geographic areas developed. 3. Financing options to meet national climate risk management costs expanded at the local, sub-national and national levels. 4. Climate risk management interventions in priority sectors implemented. <p>This output will develop CRM interventions and upscale existing interventions through co-funding and developing expertise.</p> <ol style="list-style-type: none"> 5. Knowledge on how to incorporate climate variability and change knowledge and risks into development processes at local, sub-national and national levels disseminated. 	<ul style="list-style-type: none"> ▪ Synergies will be sought to streamline capacity building support to climate change institutional frameworks during the implementation of the project. 	<ul style="list-style-type: none"> ▪ Project documentation was consulted for the stock-taking exercise
	Project: Capacity building for mitigating climate change induced disaster risks in Tajikistan (funded by BCPR)	<p>In frames of the project a range of activities will be undertaken focusing on the promotion, policy development, planning, contextualizing and system development for early recovery and climate risk management, with actual field-level implementation of recovery projects and mainstreaming of disaster risk reduction into humanitarian and development activities, with specific attention to gender issues. In particular, following outputs are expected:</p> <ol style="list-style-type: none"> 1. Improving community stabilization and strengthening national and local capacities to effectively engage in early recovery coordination, planning and implementation; 2. Strengthening disaster risk reduction and climate risk management; 3. The 8 point agenda and gender empowerment as cross-cutting area. 	<ul style="list-style-type: none"> ▪ Synergies will be sought to streamline capacity building support to climate change institutional frameworks during the implementation of the project. 	<ul style="list-style-type: none"> ▪ Project documentation was consulted for the stock-taking exercise; ▪ Consultations with the staff of Disaster Risk Management Programme were conducted.

Institution	Agencies, Departments	Institutional Mandate and Relevance to the National Communications Process	Relevance to Climate Change/ reasons for inclusion	Role in the self assessment process
UNDP/GEF	Project: Sustaining agricultural diversity in the face of climate change	The objective of the project is to test and demonstrate replicable ways in which rural farmers and communities can benefit from agro-biodiversity conservation in ways that also build their capacities to adapt to climate change through local pilot activities. The project, in partnership with the National Biodiversity and Biosafety Centre, the UNDP Communities Programme, and the GEF Small Grants Programme, features three inter-linked complementary processes. The first focuses on strengthening existing policy and regulatory frameworks in support of agro-biodiversity conservation and adaptation to climate change, with emphasis on local level implementation. The second focuses on developing community, institutional, and system capacity to enable farmers and agencies to better adapt to climate risks through the conservation and use of agro-biodiversity. The third focuses on the development of agro-enterprises that support the conservation and production of agro-biodiversity friendly products, with a view to providing farmers and communities with alternative sources of income to offset the negative impacts and shocks related to climate change.	<ul style="list-style-type: none"> ▪ One of the project outputs will be the National Strategy on agro biodiversity conservation in the face of climate change, to be developed by the end of 2012. This strategic framework will be consulted in the course of preparation of the Third National Communication of the Republic of Tajikistan to the UNFCCC. 	<ul style="list-style-type: none"> ▪ Project documentation was consulted for the stock-taking exercise; ▪ Consultations with the project staff were held.
UNDP/UNEP	Poverty-Environment Initiative (PEI)	<p>The UNDP-UNEP Poverty Environment Initiative for Tajikistan aims to enhance opportunities for the environment to contribute to human well-being, pro-poor economic growth and reach the Millennium Development Goals. Implemented jointly with the Ministry of Economic Development and Trade, the intended outcome is the enhanced capacity of government and other stakeholders to integrate environment into sustainable pro-poor national and sub-national development planning and budgeting.</p> <p>The Initiative provides technical and financial support to:</p> <ul style="list-style-type: none"> - develop information and knowledge base for Poverty and Environment (P-E) mainstreaming; - integrate P-E linkages in District Development Plans, - increase the capacity for implementing P-E sensitive sub-national plans, - raise public awareness and understanding on P-E issues and reach out to the media and donor community with descriptions of results achieved. 	<ul style="list-style-type: none"> ▪ TNC will explore the lessons learnt on integrating environment into sustainable pro-poor national and sub-national development planning and budgeting, in order to utilize this expertise in development of policy options for adaptation. 	<ul style="list-style-type: none"> ▪ Project documentation was consulted for the stock-taking exercise.
World Bank (WB) Asian Development Bank (ADB) European Bank for Reconstruction and Development (EBRD)	Pilot Programme on Climate Resilience	<p>The overall goal of the PPCR is to help countries transform to a climate resilient development path, consistent with national poverty reduction and sustainable development goals.</p> <p>The Phase 1 grant proposal of the PPCR in Tajikistan, to inform both the preparation of the Strategic Program for Climate Resilience (SPCR), and the early stages of investment project preparation thereafter, was approved in 2010. Phase 1 is designed to inform the preparation and implementation (during Phase 2 of the PPCR) of a Strategic Program for Climate Resilience (SPCR), which is a proposed series of investments to demonstrate approaches for building greater climate resilience in development planning and programs. Below are six components of the Phase 1:</p> <ol style="list-style-type: none"> 1. Review of Tajikistan's climate change institutional arrangements and capacity needs (WB-led under grant arrangement with UNDP); 2. Tajikistan's Climate Science and Impact Modelling Partnership (ADB lead); 3. Raising awareness of climate change in Tajikistan (WB-led under grant arrangement with UNDP); 4. Identifying options for enhancing the climate resilience of Tajikistan's energy sector (EBRD lead); 5. Analysis of sustainable land management approaches for changing climatic conditions in Tajikistan (WB lead); 6. Analysis of river basin approaches to climate resilience (ADB lead). 	<ul style="list-style-type: none"> ▪ PPCR in Tajikistan can emerge into a significant source of data and information to be considered under the TNC; ▪ Synergies will be sought to streamline capacity building support to climate change institutional frameworks, as well as modeling work, during the implementation of the project. 	<ul style="list-style-type: none"> ▪ PPCR team consulted on possible synergies and collaboration in modeling work.

Institution	Agencies, Departments	Institutional Mandate and Relevance to the National Communications Process	Relevance to Climate Change/ reasons for inclusion	Role in the self assessment process
GEF Small Grants Program (SGP)		<p>The GEF Small Grants Programme is a corporate programme of the GEF, implemented by UNDP and executed by UNOPS.</p> <ul style="list-style-type: none"> ▪ The GEF's Small Grants Programme aims to deliver global environmental benefits in the GEF Focal Areas of biodiversity conservation, climate change mitigation, protection of international waters, prevention of land degradation (primarily desertification and deforestation), and elimination of persistent organic pollutants through community-based approaches; 	<ul style="list-style-type: none"> ▪ Collaboration in implementation of the projects on energy efficiency and climate change; ▪ Potential data provider from relevant projects as this program has funded some projects (ongoing) in energy efficiency and renewable energy sources. 	<ul style="list-style-type: none"> ▪ GEF SGP is consulted regarding stocktaking;
NGOs				
International Institute of Human Ecology		<ul style="list-style-type: none"> ▪ Research on impacts of climate change on human health; ▪ Raising awareness on impacts of climate change on environment; ▪ Implementation of community level small scale projects on climate change adaptation. 	<ul style="list-style-type: none"> ▪ This NGO is considered as a potential partner for the public awareness activities on TNC 	<ul style="list-style-type: none"> ▪ Information of the stock of activities / studies related to FNC and SNC provided. ▪ Feedback on stocktaking report provided
NGO Energetika		<ul style="list-style-type: none"> ▪ Raising awareness on impacts of climate change on environment; ▪ Implementation of community level small scale projects on energy efficiency. 	<ul style="list-style-type: none"> ▪ Potentially this NGO is considered as a partner for the public awareness activities on TNC 	<ul style="list-style-type: none"> ▪ Feedback on stocktaking report (GHG inventory section) provided
PRIVATE SECTOR				
Tajik Aluminum Company (TALCO)		<ul style="list-style-type: none"> ▪ Tajik Aluminum Company (TALCO, previously known as TadAZ) runs the largest aluminum manufacturing plant in Central Asia and is Tajikistan's chief industrial asset. It consumes 40% of the country's electrical power. The raw material for the plant has to be imported. 	<ul style="list-style-type: none"> ▪ This private company is considered a largest GHG emitter of the country's industry. 	<ul style="list-style-type: none"> ▪ TALCO officials were consulted on data provision for GHG inventory.

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Country: TAJIKISTAN

Project Title: Enabling Activities for the Preparation of Tajikistan's Third National Communication to the UNFCCC

UNDAF Outcome(s): Pillar 3. Clean Water, Sustainable Environment and Energy

Outcome 1. National and transnational environmental agreements are better implemented, and natural resources are more sustainably managed.

Output 1.1. Greater capacity among government to negotiate, ratify and implement major international conventions and transnational policy and legal frameworks on sustainable management of natural resources.

Expected CPAP Outcome(s): Outcome 6.1. Improved environmental protection, sustainable natural resources management, and increased access to alternative renewable energy.

Expected CPAP Output: Output 6.1. Government is provided with capacity building support to negotiate, ratify and implement major international conventions, transnational policy and legal frameworks on sustainable natural resources management (including climate change mitigation, combating desertification, sustainable water management and biodiversity conservation) and local communities are supported to participate in sustainable livelihoods.

Implementing Partner: State Administration for Hydrometeorology under the Committee of Environmental Protection under the Government of Tajikistan

Other Partners: Committee of Environmental Protection, Ministry of Energy and Industry, Ministry of Economic Development and Trade, Ministry of Agriculture, Ministry of Transport and Communications, Ministry of Melioration of Water Resources, Ministry of Health, State Statistics Committee, State Committee on Land Management, Cartography and Geodesy, Academy of Sciences, NGOs (as relevant).

Programme Period:	<u>2010-2015</u>
Atlas Award ID:	<u>00061285</u>
Project ID:	<u>00077602</u>
PIMS #	<u>4459</u>
Start date:	<u>10 May 2011</u>
End Date	<u>9 May 2014</u>
Management Arrangements	<u>NIM</u>
PAC Meeting Date	<u>27 April 2011</u>

Total resources required:	<u>480,000 USD</u>
Total allocated resources:	_____
o GEF	<u>480,000 USD</u>
o Government (in-kind)	<u>50,000 USD</u>
o Other	_____

Agreed by the Committee of Environmental Protection under the Government of the Republic of Tajikistan

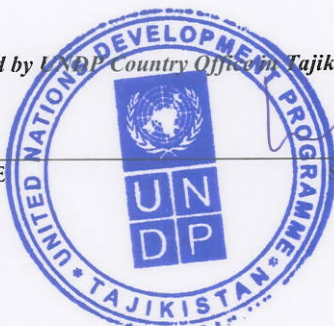
NAME SIGNATURE Date/Month/Year

Agreed by the State Administration for Hydrometeorology under the Committee of Environmental Protection under the Government of Tajikistan:

NAME SIGNATURE Date/Month/Year

Agreed by UNDP Country Office in Tajikistan:

NAME SIGNATURE Date/Month/Year



Handwritten signature and date: 03.05.11