

GEF-6 REQUEST FOR CLIMATE CHANGE ENABLING ACTIVITY

PROPOSAL FOR FUNDING UNDER THE GEF TRUST FUND

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PART I: PROJECT IDENTIFIERS

Project Title:	Development of Armenia's Fourth National Communication to the UNFCCC		
	and Second Biennial Report		
Country:	Republic of Armenia	GEF Project ID:1	
GEF Agency:	UNDP	GEF Agency Project ID:	5870
Other Executing Partner:	Ministry of Nature Submission Date: 14 April 201		14 April 2016
	Protection		
GEF Focal Area:	Climate Change	Project Duration (Months)	48
Type of Report:	NC, BUR	Expected Report	Dec 2017 (SBUR)
		Submission to Convention	Dec 2019 (4NC)

A. PROJECT FRAMEWORK*

Project Objective: To assist Armenia in the preparation of its Fourth National Communication (FNC) and Second Biennial Report (SBR) for the implementation of the obligations under the UNFCCC

	Project Outcomes		(in \$)		
Project		Project Outputs	GEF	Confirme	
Component	Project Outcomes	Project Outputs	Project	d Co-	
			Financing	financing ²	
National Circumstances	1.1. National Circumstances and	1.1.1. National circumstances on natural resources, geography, climate and socio-	60,000	30,000	
and Other	institutional arrangements	economic conditions affecting mitigation and adaptation capacity updated;			
relevant information	relevant to the preparation of the biennial update report and national communications updated	1.1.2. National development objectives, priorities, specific needs and concerns related to climate change analyzed; 1.1.3. Institutional arrangements relevant to the preparation of the biennial update reports and national communications analyzed and described; 1.1.4. Mechanism for stakeholder participation to enable the preparation of the biennial update reports and national communications described; 1.1.5 Gender disaggregated data collected and analyzed in relation to climate change.			
	1.2. Other relevant information	1.2.1. Technology, financial and capacity needs for mitigation and adaptation			
	described	assessed;			
	(research/systemati	1.2.2. Information on measures aimed at			

¹ Project ID number will be assigned by GEFSEC and to be entered by Agency in subsequent document submission.

² Co-financing for enabling activity is encouraged but not required.

	c observation, technology transfer, education, public awareness, capacity building, constraints and gaps)	integrating climate change into socio- economic and environmental policies in Armenia collected; 1.2.3. Information on transfer and access to environmentally sound technologies and know-how collected, updated and synthesized; 1.2.4. Information on financial, technical and capacity needs/constraints associated with the fulfillment of the national obligations under the UNFCCC updated; 1.2.5. Information relevant to the Article 6 activities in education and public awareness activities reflected. 1.2.6. Stakeholder awareness rising activities and trainings for partner agencies organized.		
Greenhouse gas (GHG) inventory	2.National GHG inventory updated e and capacity to collect the activity data on a continuous basis strengthened	2.1. GHG inventory updated up to 2014-SBUR and up to 2016- FNC using IPCC 2006 Guidelines and 2006 IPCC Software; for the Energy, IPPU, AFOLU and Waste sectors. 2.2. National capacities for calculation of GHG inventory improved and strengthened. 2.3. National emission factors for the key sources updated, as needed; new country specific emissions factors for the key sources developed enabling application of higher tier approaches. 2.4. The collection process, accuracy and completeness of the activity data are improved for energy sector (mainly focusing on fugitive emissions), IPPU (mainly focusing on F-gas sub-sectors) and AFOLU (mostly focusing on forestland, grassland and cropland sub-categories) and used for GHG calculations; 2.5 New sub-categories are identified and included in GHG Inventory; 2.6. Institutional arrangements enabling preparation of GHG Inventory on a continuous basis improved; 2.7. Cross-sectorial collaboration among the relevant institutions for preparation of GHG inventory strengthened	187,000	200,000
Climate Change Mitigation	3. Report on policies and measures to mitigate the climate change prepared	3.1. GHG emissions projections for the period of 2016-2030-2050 estimated; 3.2. Necessary data and relevant information for scenario development collected and	205,000	120,000

	and capacity to collect and analyze this information on a continuous basis for the future biennial update reports and national communications strengthened	analyzed; 3.3. Mitigation analysis and proposals presented in the FBUR and TNC reviewed and upgraded; 3.4. Differences/changes to the Business as Usual (BAU) scenario developed under the FBUR and TNC identified and explained; 3.5. Potential for GHG emissions reduction paths updated, checked against current policy framework and recommendations for policy improvement proposed; 3.6. Roadmap for NDC implementation up to 2025 prepared and submitted to the government; 3.7. Stakeholder consultation workshops organized and outreach activities on policies and measures for the climate change mitigation implemented.		
Vulnerability Assessment & Adaptation to the climate change	4. Climate change vulnerability assessment for priority sectors developed (with regional and local focus as applicable) and plans and programmes proposing measures to facilitate adaptation prepared	4.1. Climate change scenarios revised using appropriate models; 4.2. Impacts of climate change on socioeconomic development of Armenia described and analyzed; 4.3. Vulnerability assessment for water (with case study on hydro-energy sector), agriculture, forestry, health, transport, and tourism conducted with regional/local focus where applicable; 4.4. Climate change risk management issues strengthened as part of National Disaster Risk Management Plan; 4.5. National Programme on Adaptation to Climate Change prepared and submitted for government approval; 4.6. Policy frameworks for effective integration of adaptation measures into national strategies identified; 4.7. Stakeholder consultation workshops organized and outreach activities on policies and measures for the climate change adaptation implemented.	198,000	80,000
Domestic Measuremen, Reporting and Verification	5. Establishment of domestic Measurement, Reporting and Verification system accelerated	5.1. Proposal for establishment of the domestic MRV system outlined in the FBUR reviewed and updated; 5.2. Policy framework for the establishment of domestic MRV system developed.	50,000	25,000

Production of	6.1. Second Biennial	6.1.1. Training and regular workshops	75,000	5,000
the Biennial	Update Report and	organized to discuss progress, exchange ideas		
Updated	Fourth National	and present findings of the BR/NC process;		
Report and	Communication	6.1.2. SBUR and FNC produced, edited,		
National	consolidated and	reviewed and translated, endorsed,		
Communicatio	submitted	published and submitted to the UNFCCC		
n and		Secretariat.		
Monitoring	6.2.Appropriate	6.2.1. Inception workshop organized;		
and	framework in place	6.2.2. Independent professional review of the		
Evaluation	for Project M&E	SBUR and FNC ensured;		
	financial audit	6.2.3. Lesson learned analyzed, shared and		
	conducted and	disseminated		
	lessons learned	6.2.4. End of Project report compiled.		
	compiled			
		Subtotal	775,000	460,000
Project Management Cost ³				120,000
		(Including Direct Project Services Cost: 5,000)		
		Total Project Cost	852,000	580,000

^{*} List the \$ by project components. Please attach a detailed project budget table that supports all the project components in this table.

B. Source of Co-financing for the Project by Name and by Type

Sources of Co- financing	Name of Co-financier	Type of Co-financing	Amount (\$)
National Government	Ministry of Nature Protection	In-kind	500,000
Others	UNDP CO (Armenia)	In-kind	80,000
(select)		(select)	
(select)		(select)	
Total Co-financing			580,000

C. GEF FINANCING RESOURCES REQUESTED BY AGENCY, COUNTRY AND PROGRAMMING OF FUNDS

CEE	GEF			(in \$)			
Agenc	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	GEF Project Financing (a)	Agency Fee (b) ^{b)}	Total (c)=a+b
UNDP	GEF TF	Armenia	Climate Change		852,000	80,940	932,940
Total GE	Total GEF Resources			852,000	80,940	932,940	

a) Refer to the <u>Fee Policy for GEF Partner Agencies</u>

³ This is the cost associated with the unit executing the project on the ground and could be financed out of trust fund or co-financing sources. For EAs within the ceiling, PMC could be up to 10% of the Subtotal GEF Project Financing.

PART II: ENABLING ACTIVITY JUSTIFICATION

A. ENABLING ACTIVITY BACKGROUND AND CONTEXT

(Provide brief information about projects implemented since a country became party to the convention and results achieved)

Armenia ratified the UN Framework Convention on Climate Change in 1993 as a non-Annex I country and the Kyoto Protocol in 2003. As part of its commitments under UNFCCC, Government of Armenia ensures regular reporting of climate change related trends and developments in the form of national communications. The First (1998), Second (2000) and Third National Communications (2015) were submitted to the UNFCCC respectively. The National Inventory Report for 2012 developed in the frames of the First Biennial Update Report (FBUR) was submitted to the UNFCCC on 30 December 2015. The FBUR submission is planned for April 2016.

The Intended Nationally Determined Contributions (INDC) of the Republic of Armenia was endorsed by the Government Protocol Decision #41 from September 10, 2015 and submitted to the UNFCCC Secretariat on September 22, 2015.

Since the ratification of the UNFCCC and joining the Kyoto Protocol, Armenia has adopted and implemented several national strategies to mitigate the impact of climate change. New renewable energy capacities are installed and energy efficiency measures both on generation and consumption side implemented. For Armenia as a mountainous land-locked country with vulnerable ecosystems, sectorial policies aimed at reducing the impacts of the climate change are of ultimate importance for ensuring the sustainable socio-economic development and reduction of risks of reversing development achievements. The climate adaptation and risk management are recognized and considered in new strategies under discussion in agriculture, water management and disaster risk reduction areas.

According to the 5-year action plan on implementation of the obligations towards the UNFCCC adopted by the Government of Armenia in 2011 the framework for partnership between national agencies with certain responsibilities was ensured, thus enabling mainstreaming of the climate change mitigation and adaptation concerns into the national and sectoral strategies and policies. The Climate Change Inter-agency Council as the institutional mechanism for coordination of policy between different sectors is established by the Prime Minister order (2012) and the Climate Change and Atmosphere Air Protection division is created at the Ministry of Nature Protection (2015).

The most recent and relevant policy and strategy documents adopted are as follows:

- Strategic Programme of Prospective Development for 2014-2025 (2014);
- Energy Security Concept of the Republic of Armenia (RA) (2013) and Energy Security Action Plan for 2014-2020 (2014);
- Scaling Up Renewable Energy Program (SREP) Investment Plan for Armenia (2013);
- The Long-term (up to 2036) Development Paths of the Energy System of the RA (2015);
- Strategy of Sustainable Agricultural Development for 2010-2020 (2010).

The Armenia's INDC submitted to the UNFCCC recently indicates the Armenia's commitment of quantitative limitation of GHG emissions, based on per capita emission limitation principle, which in total makes 633 million tons of CO_{2eq} limit of emissions for the period of 2015-2050 (details in INDC submitted to UNFCCC in 2015). The INDC of Armenia also indicates the main sectors with highest mitigation potential: Energy (including development of renewable energy and improved energy efficiency); Transport (including development of electrical transport); Urban development (including buildings and construction); Industrial processes (construction materials and chemical production); Waste management; (solid waste, wastewater, and agricultural waste); Land use and Forestry (afforestation, forest protection, carbon storage in soil). The sectors were identified based on the GHG inventory, carried out within the framework of the first Biennial Update Report, which has been used to formulate the INDCs of Armenia and undertaking stakeholder consultations prior adoption of INDC by

the RA Government (2015). In fact, NCs and GHG inventory reports of Armenia served as an evidence base for formulation of the national climate policy and mobilization of climate investments.

The total GHG emissions in 2012 comprise 40% of 1990 emissions, with energy sector as the major emitter responsible for 70.3% of the overall national emissions in 2012. That signifies the importance of activities implemented in the energy sector. To reduce the emissions from the energy sector, Armenia is planning to increase share of renewable energy in power generation mix, the Government set a target of achieving 20 per cent of renewable energy in total energy consumption by 2020. The energy security strategy and Action Plan also emphasize importance of promoting energy efficiency. Currently Second National Energy Efficiency Action Plan for period of 2015-2017 is under discussion (adoption is pending). Armenia has joined the Eastern Europe Energy Efficiency and Environment Partnership (E5P) to promote investments in energy efficiency projects through attracted grant and loan resources, involving also banking and mortgage institutions. The solid municipal waste strategy developed with assistance of Asian Development Bank under coordination of Ministry of Territorial Administration (approval pending) envisages the landfill gases capture and flaring activity to avoid methane emissions as climate responsive management of the landfill sites.

Agriculture in Armenia still accounts for more than 19% of the economy and about 46% of total employment (2012). Against this background, Armenia prioritized this sector as a focus for international assistance and integrated rural development in general, with key link to food industry value chain, with certain export potential, and secondly this sector is critical for increase of productivity and balanced regional development.

The development of national communications and biennial update reports to the UNFCCC on continuous basis enhance capacity of the key national institutions engaged in the process of analytical studies, contributes to strengthening of the information based decision making, integration of climate change concerns into relevant sectorial policies and national development strategies.

To fulfil the key provisions of COP decisions on submission of the national communications and biennial reports and considering current economic development situation in the country the Global Environment Facility support is needed to ensure reporting on progress of the UNFCCC implementation in the country. The reporting system will contribute to continue the efforts on technical and institutional capacity building, elaboration of potential for synergies aimed at integration of climate change into national plans, policies and programmes. The 4NC and SBUR will be based on the recommendations and findings of the TNC and First BUR, with full consideration of knowledge generated in the course of new studies, research, and complementary projects. The process of preparation of the 4NC and BUR will continue the ongoing partnership among relevant stakeholders, including government, civil society, academia, private sector and international development partners. It will continue to serve as a regular reporting process on climate change and framework for inter-agency coordination and capacity building platform for ensuring coherent policies securing the achievement of the stated commitments of Armenia under INDC. Armenia will submit its Second Biennial Update Report and Fourth National Communication to the UNFCCC in 2017 and 2019 respectively.

B. ENABLING ACTIVITY GOALS, OBJECTIVES AND ACTIVITIES

(The proposal should briefly

The **overall goals** of the project are: (1) enabling Armenia to prepare and submit its Fourth National Communication and Second Biennial Update Report to the UNFCCC in accordance with its commitments as a non-Annex 1 Party to the Convention (as mandated by Articles 4 and 12); (2) support mainstreaming and integration of climate change into national and sectorial development policies through ensuring continuity of the institutional and technical capacity building, partly initiated and consequently sustained by reporting instruments under the UNFCCC; (3) institutionalize data collection, processing, interpretation and dissemination of

justify and describe the project framework. Identify also key stakeholders involved in the project, including the private sector, civil society organizations, local and indigenous communities and their respective roles, as applicable. Describe also how the gender dimensions are considered in project design and implementation)

GHG inventory and continue building on appropriate and well-informed basis for climate change mitigation, adaptation, education and awareness-raising strategies at local and national levels.

While the **immediate objective** of the project is to assist the country to fulfil its obligations under UNFCCC, consistent with the COP Decision1/CP.16 (paragraph 60) and Decision 2/CP.17 (paragraph 41). In the long term, the project will allow the country to lay the foundations to strengthen the existing institutional arrangements and support the long-term targets aimed at reversing the impacts of climate change. Building on the previous NC/BR process, the project comes in a timely manner to generate the basis and advice on strategic policy decisions to achieve stated objectives under INDC.

The project is prepared in line with GEF-6 strategic focal area on climate change mitigation, objective "CCM-3: Foster Enabling Conditions to Mainstream Mitigation Concerns into Sustainable Development Strategies, Programme 5: Integrate findings of Convention obligations and enabling activities into national planning processes and mitigation targets." The project is also aligned with UNDAF Outcome 7: By 2020, sustainable development principles and good practices for environmental sustainability, resilience building, climate change adaptation and mitigation, and green economy are introduced.

The project goals and objectives will be achieved through below identified activities:

- A. Improve the quality of GHG inventory by filling out the gaps of the activity data, developing country-specific emissions factors and applying higher tier approaches, considering new sub-categories and reducing the uncertainties encountered in the previous inventories;
- B. Build national capacities allowing the country to apply 2006 IPCC Guidelines and 2006 IPCC Software for developing National GHG Inventory; Assist in establishment of National Inventory Systems with defined institutional arrangements;
- C. Assist in mainstreaming mitigation considerations in course of updating/developing strategic programmes;
- D. Analyze the impact of the current and planned mitigation policies/actions for planning more ambitious mitigation targets;
- E. Collect and analyze the data on climate change trends in the country, including climate change related risks and coping mechanisms;
- F. Strengthen the policy framework ensuring adequate adaptation to climate change in the traditionally vulnerable sectors in the country (agriculture, water, natural ecosystems, health, settlements and infrastructures, energy and tourism) with in-depth regional focus, applying new socio-economic, climate and crop models;
- G. Collect and analyze gender disaggregated data in relation to climate change;
- H. Contribute to the implementation of the latest decisions of COPs on implementation of Article 6 of Convention;
- I. Prepare a road map for the achievement of the INDC submitted to the UNFCCC;
- J. Update the constraints, gaps and related financial, technical and capacity needs, as well as publish findings and promote biennial update report and national communication.

This enabling activity project will help Armenia to fulfill its commitment to prepare and submit its Second Biennial Update Report and Fourth National Communication to the UNFCCC. The proposed project will further strengthen the capacity of the national institutions in related research and analysis eventually contributing to Armenia's inputs to reducing the impacts of the global environmental threat of climate change. Reports, findings, and analysis produced will be used by the decision-makers for preparing and implementing environmentally sound program to achieve the national commitments including ones identified in the recent Armenia's INDC document.

The project implementation envisages an effective stakeholder's participation, including line

ministries, and agencies, local communities, NGOs, mass media, research and educational institutions, private sector and international organizations. Their involvement in the planning, implementation, monitoring and evaluation of the project is essential. The stakeholders of the project are expected to come from a range of backgrounds, with particular emphasis on related sectors thus fostering synergies of environmentally responsive policy implementation.

Their list will include, but is not limited to the: Ministry of Nature Protection (national authorized agency for UNFCCC implementation coordination), Ministry of Agriculture (including Water Agency, and Forestry SNCO), Ministry of Territorial Administration, Ministry of Emergency Situations (including Hydromet Service SNCO), National Statistical Services, Ministry of Energy and Natural Resources, Ministry of Economy, Ministry of Finance, Ministry of Education, Ministry of Health, Ministry of Transport, National Assembly, NGOs, National Academy of Sciences, universities, international organizations, business community, women and youth groups, mass-media.

<u>Gender dimension</u>: The project will ensure data collection and analyses disaggregated by gender, age, and socially disadvantaged to allow development of recommendations for specific gender targeted and inclusive policies, mainly related to adaptation dimensions of vulnerable communities. There is still a concern on discrepancy between policies on national level and adaptation interventions on community level, including gender specific vulnerability. The role of gender in adaptation and mitigation activities, policy formulation and knowledge will be analyzed. The expected findings will build recommendations for most of the project outcomes (V&A, Mitigation, etc.).

According to the Constitution, women and men enjoy equal rights in Armenia. Legislative norms in Armenia mostly correspond to the major international standards. In 1993, Armenia signed and ratified the United Nations Convention on the Elimination of All Forms of Discrimination against Women, and in 1995 joined the Fourth World Conference on Women's Beijing Declaration. Armenia also signed the UN Millennium Declaration and agreed to the Millennium Development Goals, the third goal of which aims at promoting gender equality and women's empowerment. However, ongoing economic hardships related to transition to a market economy and resulting high levels of unemployment, poverty, and male out-migration are particularly affecting women. Women of Armenia are heavily engaged in agriculture, the sector that employs around 44 percent of population, which is substantially affected due to the risks associated with climate change.

UN Country team supports the Government of Armenia in its respective efforts through its both direct projects targeting women, and incorporating respective gender-related activities into the project designs and in course of implementing projects. The gender dimension is taken into account when preparing the program for further UN cooperation with the Government of Armenia.

The previous NCs and the First BUR did not deal with gender mainstreaming issues, leaving room for improvement in the FNC and SBUR. Mitigation actions focused on reduction of greenhouse gas emissions, particularly targeting energy efficiency in residential and public sector, although not specifically targeting women, has positive health impacts on indoor comfort in homes and schools, reducing energy costs burden on family budgets. Similarly, the adaptation projects reducing climate risks in the agriculture sector contribute to economic wellbeing of rural communities and indirectly women and children.

The FNC/SBUR project will incorporate a gender perspective in the evaluation and understanding how the different social roles and economic status of men and women affect, and are affected differently by climate change adaptation and mitigation actions. In doing so the role of women will be considered not only as beneficiaries of climate change related activities but also in the decision-making process. During the project inception, the gender

indicators will be selected for evaluation of the gender dimension in climate change adaptation and mitigation, as well as in the process of the project implementation.

The guidance on gender integration through the NCs and BURs developed by the Global Support Programme through UNDP and in collaboration with UNEP and GEF, will be applied.

C. DESCRIBE THE
ENABLING ACTIVITY AND
INSTITUTIONAL
FRAMEWORK FOR
PROJECT
IMPLEMENTATION
(discuss the work
intended to be
undertake and the
output expected
from each activity
as outlined in Table
A)

Institutional framework: UNDP Armenia will act as GEF Implementing Agency for the development of the FNC+SBUR Project. Merging these two activities into one project will enable a rational use of funds and avoid duplication.

- UNDP CO will assist Armenia during the entire project period to implement the activities set forth.
- The Ministry of Nature Protection (MNP) of Armenia, in its capacity of UNFCCC implementation national authority, hosting UNFCCC National Focal Point and GEF Operational Focal Point for Armenia will act as the Executing Agency to coordinate and implement project activities on behalf of the Government.
- Project Team will act under umbrella of the well-established Climate Change Programme Unit and will consist of a Project Coordinator (PC) and Project Assistant along with the technical experts responsible for the deliverables as specified in the project proposal.
- The UNDP Country Office will monitor and supervise implementation of the project in line with standard procedures.

The overall responsibility for the project implementation by MNP implies the timely and verifiable attainment of project objectives and outcomes. MNP will provide support to, and inputs for the implementation of all project activities. The UNDP Environment Governance Portfolio National Director (First Deputy Minister of Nature Protection) will act as National Project Director (NPD) for the project implementation. The Climate Change Inter-Agency Council chaired by the Minister of Nature Protection will act as Project Steering Committee (PSC). The Council will be responsible for providing policy support, oversight and guidance to the project implementation. The NPD and Steering Committed inputs to the project will represent a Government's in-kind contribution to the Project.

The project will follow the same institutional arrangements that have been established for the implementation of the SNC, TNC, and FBUR.

The Government of Armenia and UNDP CO will provide in-kind contribution through the use of office space and provision of office equipment and premises for conferences and meetings.

Activities for project implementation:

National Circumstances and Institutional Arrangements:

Information on the national circumstances of Armenia on natural resources, geography, climate and socio-economic conditions affecting mitigation and adaptation capacity of the country will be updated. The national development objectives, specific needs and concerns related to climate change will be analyzed and taken into account. The national priorities, strategy and legislation relevant to climate change will be analyzed, taking into account their status and tendencies. Also, institutional arrangements relevant to the preparation of the FNC and SBUR will be analyzed and described. Similarly, the mechanism for stakeholder participation in preparation of the FNC and SBUR will be described. The list of stakeholders, along with the relevant government institutions, will include local administrations, private sector, academia, NGOs. The relevant studies, projects implemented and/or under implementation by the stakeholders and their findings and recommendations will be analyzed and taken into account. The major GHG emitting sectors and those that are the most vulnerable to climate change will be analysed. In addition to the vulnerable sectors, previously identified in TNC - Agriculture, Water, Natural Ecosystems, Health, Settlements and Infrastructures, - two new sectors, Energy

and Tourism will be added. During the data collection, the most updated information will be actively sought and taken into account.

Special attention will be given to the collection and analysis of gender data in relation to climate change. Gender disaggregated data will be collected and reported with special attention given to measures undertaken in the past to ease the impact of the climate change on women and helping them to adapt to it, especially in sectors in which women are especially involved, like agriculture and health.

Summarizing, all the thematic and sectoral components that define the National Circumstances will be updated and revised for their inclusion in the FNC and SBUR.

GHG Inventory:

Under the previous National Communication and Biennial Update Report, the GHG inventories of emissions by sources and removals by sinks were updated for the years 2000-2012. In the SBUR the GHG Inventories for the years 2011-2012 will be recalculated and Inventory for 2013-2014 will be developed, in turn under FNC the GHG Inventory for 2014-16 will be prepared.

The process of GHG inventory preparation will comprise of the following:

- Analyze the recommendations on gaps, shortcomings and directions for improvement reported under First BUR
- Conduct training on the usage of improved 2006 IPCC Guidelines and 2006 IPCC Software for the experts to be involved into the inventory preparation and relevant stakeholders;
- Collect activity data required for GHG inventory development;
- Develop GHG Inventory for 2013-2014, and 2015-2016;
- Develop and use national emissions factors for GHG calculations for Energy and AFOLU (mostly focusing on forestland and land use change) sectors;
- Assist in establishment of the National Inventory Systems (NIS) with defined institutional arrangements;
- Make sure that each involved stakeholder clearly understands his/her role in the National Inventory System;
- Ensure that the NIS establishment process facilitates the integration, coordination and implementation of the human, technical and financial resources (coming from the synergy of different programs and projects) needed to assist and develop the regular preparation of the national inventory;
- Strengthen cross-sectoral exchange and collaboration for preparation of the GHG inventory, particularly with the team involved in energy balance preparation;
- Subsequent to the GHG inventory preparation, ensure the quality assurance verification processes. It will be done with the involvement of relevant stakeholders including but not limited to interagency working group under Climate Change Council, and also reinforce the participation and involvement of stakeholders.
- Report on improvements compared to previous Inventory reports, built capacity, shared knowledge, applied methods and used technology tools, including National Inventory System establishment progress.

During the preparation of the FNC and SBUR, input data from the previous GHG inventory will be revised and recalculated to better reflect any changes. GHG emissions by sources and removals by sinks up to 2016 will be completed and the uncertainties encountered in the previous inventory will be reduced.

The following **methodological materials** will be used: IPCC 2006 Guidelines; the IPCC Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories; IPCC Good Practice Guidance on Land Use, Land-Use Change and Forestry. Finally, 2006 GHG

inventory software and Inventory sectorial tables according to the 2006 IPCC Guidelines for reporting of inventory results will be used. The taskforce will also be responsible for developing data recording and archiving system to facilitate the inventory process, especially in the respective sectors.

To sustain the inventory working groups, training opportunities will be created, including exchange in knowledge and expertise with other GHG inventory specialists in the region. The capacity building outputs of the project will be used to institutionalize the inventory process in the work of the relevant agencies and ministries. It is envisaged that this approach will promote ownership and participation among relevant agencies and will sustain the inventory process for Armenia.

Climate Change Mitigation

First BUR included the analysis of GHG emission reduction trends for the period of 1990-2012 and implemented measures on mitigation of GHG emissions. The national policy and institutional developments, international support and sectoral activities, including improvement of energy efficiency and development of alternative energy sources were the basis for implemented measures in this period. Mitigation analysis was conducted for each sector. Along with this, GHG emissions scenarios (BAU and With measures and With additional measures) were developed using LEAP software for the period up to 2030. The mitigation scenarios included measures implemented, under implementation or planned in all major emitting sectors.

The proposed project will contribute to the national capacity to collect and analyze information on the climate change mitigation on an ongoing basis in order to support Armenia to report on mitigation policies and measures as part of its commitments under the Convention. Firstly, the analysis and results presented in the TNC and First BUR will be revised, followed by GHG emissions projections for the period 2015-2050. This will be done based on relevant data and information collection and analysis with the subsequent scenario development and estimation. With this goal, mitigation policies, programmes, actions undertaken by different stakeholders and projects will be analyzed.

This will allow explaining the differences or changes to the Business as Usual (BAU) scenario developed under the First Biennial Report. Further, the country's potential to reduce GHG emissions will be assessed and updated, major GHG emission reduction opportunities will be identified and the policy framework and recommendations to enhance the commitments under INDC will be proposed and the roadmap to achieve INDC targets will be elaborated and presented to the Government.

All works will be conducted in close partnership and communication among all stakeholders. Consultative workshops and seminars will be organized on mitigation policies and measures. The key outcomes and recommendations will be presented to the Climate Change Council.

Vulnerability Assessment & Adaptation to the Climate Change

Vulnerability assessment and adaption chapter under the TNC covered agriculture, water, natural ecosystems, health, settlements and infrastructures. According to the assessment results, agricultural and water sectors have been identified as the most vulnerable sectors with the need for implementation of adaptation measures. Due to the impact of climate change on agricultural sector, 15-20% decrease in productivity of crops is predicted. Impact on water sector of 10% precipitation decrease and reduction of river flow up to 24% by 2030 are also predicted. The risk of climate variability poses great risk for investments in agriculture sector and increasing its efficiency. The regional vulnerability assessment and adaptation plan development pilot study, undertaken under TNC, demonstrated the importance of incorporation of adaptation context in regional development, as well as in community

development plans. The most sensitive are impacts on agriculture, water resources, and settlements. The negative impacts on natural ecosystems are also obvious as due to the aridization of climate the forests and pastures natural regeneration is suppressed, phytosanitary conditions are worsened and the forest fire risks are increased of.

Along with vulnerability assessment, the analysis for the identification of prior adaptation measures impact will be conducted. Those adaptation measures include diversification of agricultural crops under cultivation, early warning systems, climate risk management practices in communities (greenhouses, anti-hail nets, pasture management schemes, cooperatives), irrigation system improvement, application of modern irrigation techniques, construction/reconstruction of water reservoirs, waste water reuse, reforestation, flood prevention measures, forest fire and forest pest protection, identification of special mode boundaries of economic activities for the flooded areas for coastal zones, etc.

In the FNC, more detailed analysis of climate change impact on vulnerable sectors is needed, focused on economic impacts and cross sectoral links. Vulnerability assessment and adaptation to the climate change will be conducted in the sectors, previously identified and reported in the TNC, with the additions of two new sectors (Energy and Tourism), based on updated climate scenarios. When applicable, the regional and local particularities will be taken into account. The work will include preparation of plans and programs proposing measures to facilitate adaptation.

Regarding the detailed actions to conduct vulnerability assessment and enhance the country's adaptation to the climate change, they will be as follows: (i) the impact of climate change on socio-economic development of Armenia will be reviewed and analyzed; (ii) the previously analyzed five vulnerable sectors — Water, Agriculture, Ecosystems, Human Health, Settlements and Infrastructures, - plus, two new sectors, Energy and Tourism will be analyzed; (iii) case studies, at least one for hydro energy and second for tourism will be done; (iv) where applicable regional and/or local focus for V&A will be applied; (v) National Program on Adaptation to Climate Change will be prepared, as well as the policy framework for effective integration of adaptation measures into the national strategies will be mapped out and to the extent possible, implemented.

Regarding the more precise steps to respond to the vulnerability and adaptation study needs, they will be as follows:

- Evaluating developments of climate monitoring system. The work will start with the analysis of the progress made lately by the "Hydrometeorology and Monitoring Service" SNCO related to the systematic observation and forecast/modelling activities, specifically on the advances related to the quality of generated and reported climate information.
- Updating used climate models, testing and interpreting the new ones. This will be based on the achievements on compiling information and updating climate models used in TNC. Future climate changes will be investigated using more parameters based on increased availability of data. In addition, it will include the usage of improved IPCC models that complement the findings.
- Capacity building for selected experts and employees of stakeholder institutions should be included among the outputs envisaged for this activity to further enhance their technical skills.
- Elaborating and/or revising vulnerability studies, compilation of information related to vulnerability assessment undertaken since the TNC/First BUR. Based on the revealed needs and gaps targeted studies will be conducted by compiling the information, selecting the methodology, formulating conclusions on vulnerability and presenting the outcomes to the target audience.
- Describing climate adaptation situation, including collection of information on executed and

- ongoing adaptation projects, evaluating their impacts related to prioritized areas and cross-sectoral effect.
- Reviewing adaptation policies. This will be based on the review of the existing policies to promote and reinforce the adaptation measures and plans both at national and local levels. Additionally, based on the vulnerability studies elaborated by the project, the National Adaptation Plan consisting of specific actions to promote adaptation will be prepared.
- Since the mentioned sectors are closely linked, the studies will identify potential synergies
 to design better adaptation options, including an assessment of socio-economic
 consequences and benefits. Finally, analysis related to food security will be also addressed.

Similar climate change mitigation measures, vulnerability assessment and adaptation measures will be conducted in an interactive way, with the participation of all relevant stakeholders, including but not limited to the government agencies, academia, private sector, central and local authorities, international organizations, media, and civil society.

The FNC+SBUR project will pay special attention to extreme weather events and risk management aspects. The climate change scenarios and their socio-economic impacts will be analyzed, since agriculture sector is exceptionally vulnerable to extreme weather, special attention will be devoted to expected changes in extreme weather events frequency, intensity, distribution and impact. One of the new sectors to analyze will be impact on energy sector and tourism.

Other Information

Regarding the **Other information relevant** to the achievement of the objectives of the UNFCCC, the insufficiency of financial, technological resources and absence of systematic approach are considered as the main barriers to strengthen capacity and ensure sustainability of implementation of various programs related to climate change. In line with the Doha Work Program on Article 6, the activities will be shaped around 6 pillars, with particular emphasis on education and public awareness. The technology needs assessment for various sectors in relation to mitigation and adaptation will be based on outcomes of UNEP-GEF Technology Needs Assessment project results and recommendations on institutional strengthening and networking. The detailed assessments related to these priorities will be launched during the FNC+SBUR inception workshop.

On other information relevant to the implementation of the Convention, the following activities will be carried outs:

- Analysis, synthesis and update of existing information on climate change as compared to the TNC and First BUR, through existing partner list, group discussions, interviews, etc;
- Analysis of national and regional institutional frameworks, projects, programs and documents related to climate change;
- Assessment of technology, financial and capacity needs for mitigation and adaptation;
- Collection of information on measures aimed at integrating climate change into socioeconomic and environmental policies in Armenia;
- Collection of information on access to environmentally sound technologies and know-how;
- Collection of relevant information through close cooperation with different governmental institutions, agencies, academia, NGOs and individual researchers.

National institutional arrangements for initiation and coordination of activities for implementation of the UNFCCC, coordinated by the Ministry of Nature Protection have shown some progress in relation to the establishment of institutional structures, however there are still capacity constraints while the roles and responsibilities for fulfilling the Convention needs updating. The activities will address the identified gaps reported under TNC/First BUR, namely technical and institutional gaps for enhancing GHG inventory data collection, processing,

archiving, promotion of mitigation actions inter alia through legal, economic, financial instruments introduction in consultations with stakeholders and partners. In addition, the socioeconomic benefits of different mitigation options in Armenia will be assessed. The Inter-agency working group established under the Climate Change Council will be regularly consulted, as well as NGOs, professional unions; Aarhus Centers in regions will operate as network to promote exchange and information sharing on climate change. Climate change information sharing will be overall enhanced through active involvement of mass media.

<u>Domestic Monitoring, Reporting and Verification (MRV) system</u>

Under the FBUR, initial analysis for the creation of the Domestic MRV system was undertaken. The main purpose of analysis on Domestic MRV was to identify current situation, find out existing elements of MRV, current gaps and barriers, capacity needs, any initiatives on project level MRV, and based on these findings to develop "roadmap" on how to establish domestic MRV system in the country. Analysis conducted under First BUR project reviewed different MRV frameworks, including its elements such as scope, set-up, standards, monitoring &reporting, verification and transparency. Another important finding of MRV analysis was that there is a need to develop a robust institutional framework that encompasses the relevant institutional entities as well as the necessary staff, systems and processes, for an effective and nationally appropriate MRV system.

An assessment will be made of the different options and possibilities for the national MRV system according to the Guidelines of Consultative Group of Experts, taking into account national circumstances and capacities. Capacity needs assessment and institutional arrangements will be analyzed and respective capacity raising activities will be promoted. SBUR and FNC will continue the work and build on the findings of FBUR assessment. Project will support establishment and functioning of domestic MRV, considering arrangements required for country and project level MRV system. Relevant projects having MRV-related components, like CDM and WB-GEF, UNDP-GEF projects, as well as other projects MRV components will be reviewed.

<u>Production of the Second Biennial Reporting (SBUR) and the Fourth National Communication</u> (FNC).

The SBUR and FNC will be prepared and presented to the UNFCCC Secretariat according to the requirements at the end of 2017 and 2018 respectively. The documents will be prepared in the national language and disseminated in national and international workshops and seminars, and among stakeholders. The process of the SBUR and FNC preparation will be interactive with the stakeholders' participation. Regular workshops will be organized to discuss the progress, to share information, exchange ideas and present findings. Both reports will be translated, published and formally submitted to the UNFCCC Secretariat as usual practice.

To monitor and evaluate the progress during implementation, the accurate mechanism with the necessary milestones will be presented. The work will start with the inception workshop, on which tentative plan of actions and roadmap will be prepared. The work will be conducted with the strong cooperation of both local and international experts. There will be biannual reporting under the project. Independent experts will be attracted to review both the SBUR and FNC before they are finalized. Challenges encountered, lessons learned and feedback received will be analyzed, shared and disseminated.

D. DESCRIBE, IF POSSIBLE, THE EXPECTED COST-EFFECTIVENESS OF

The FNC/SBUR project will enable Armenia to address its commitments under the UNFCCC related to reporting, transparency and capacity building including: GHG inventory, mitigation of GHG emissions, and reduction of vulnerability to climate change, etc. The requested funding will be applied in a cost-effective manner to enhance Armenia's capacity to measure, forecast and

THE PROJECT:

evaluate its GHG emission trends, identify the most vulnerable sectors and assess the adaptation and resilience measures efficiency. The needs and gaps identified will contribute to the elaboration of work programmes in climate change mitigation and adaptation programmes and policy planning, through capacity building and awareness raising in corresponding national institutions and public in general. The FNC/SBUR will draw on the experiences and results of the previous NCs and FBUR. In particular, activities will focus on areas and sectors that have been identified as most relevant for the national circumstances under INDC. The core strategy will be directed to enhance the cost effectiveness of the FNC/SBUR Project through building on the existing experience and climate change programmatic approach as agreed between Ministry of Nature Protection, as national responsible body for UNFCCC implementation in Armenia, and UNDP. During project implementation, the existing experience, capacities and established network within national institutions, donor agencies, and other related UNDP projects will be fully utilized.

The total project enabling cost is estimated to be about US\$ 1,427,000. When all components of the project are implemented: (i) the Armenia's capacity to meet its obligations under the UNFCCC will be strengthened significantly and on a sustainable level; (ii) the FNC and SBUR reports will be produced discussed and adopted; (iii) the vulnerability assessment and adaptation measures will be updated; (iv) the GHG emission estimates over a longer period will be modeled; and (v) appropriate mitigation measures will be recommended. The project will also ensure socio-economic benefits through integrating gender, social, health considerations, and applying ecosystem approach to adaptation. The project will liaise with UNDAF and UNDP Country Programme Document on synergies with Sustainable Development Goals including synergies with biodiversity and land conservation, gender equality, social inclusion, energy and food security, disaster risk management.

Additionally, stocktaking exercise and national multi-sectoral stakeholder's consultations involving civil society, national counterparts, local communities, academia and other related partners will be further strengthened given the good relations built up and enhanced through the previous NC preparation activities, which in turns creates broader national ownership of the climate change project's results. Although TNC project have implemented some initial climate change vulnerability assessment for agriculture, water, health, forestry, settlements and infrastructures and ecosystems, there are still a lot to be assessed under the FNC project, for example energy sector and tourism which is considered as important contributors of Armenia's economy. The vulnerability studies conducted have yet not been sufficient for fully assessing the economic impacts and viable adaptation strategies for agricultural sector in Armenia, including risk transfer, financial and economic stimulus for shifting to resilient and resources efficient practices. The project will also carry out vulnerability and adaptation studies on new sectors including tourism, which have not been yet assessed by the previous national communications. Communication and consultations with UNICEF, UNFPA, WHO, and other agencies including UNDP related projects will be carried out to explore opportunities for synergy with respect to climate-induced risks under changing climate.

E. DESCRIBE THE BUDGETED M&E PLAN:

The project will be monitored through the following Monitoring and Evaluation (M&E) activities.

Project start-up:

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. The Inception Workshop is crucial to building ownership for the project results and to plan the first year annual work plan.

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 vis-à-vis the project team. Discuss the roles, functions, and responsibilities within the project's

- decision-making structures, including reporting and communication lines, and conflict resolution mechanisms. The project implementation structure and Terms of Reference of key project staff, as needed.
- b) Based on the project results framework and the relevant GEF Tracking Tool, if appropriate, finalize the first AWP. 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 Steering Committee meetings. Roles and responsibilities of all project organization structures should be clarified and meetings planned. The first Steering Committee meeting should be held within the first 12 months following the inception workshop.

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

Quarterly:

- Progress shall be monitored via the UNDP Enhanced Results Based Management Platform.
- The risk logs shall be regularly updated in ATLAS in relation to the initially identified risks and their envisaged impact. Risks become critical when the impact and probability are high.
- Project Progress Report (PPR) can be generated in the Executive Snapshot based on the information recorded in Atlas.
- Other ATLAS logs can be used to monitor issues, lessons learned, etc. The use of these functions is a key indicator in the UNDP Executive Balanced Scorecard.

Bi-annual progress:

• The biannual progress will be tracked and reported through status survey questionnaries to indicate as well as to identify bottlenecs and technical support needs.

Periodic Monitoring:

A detailed schedule of project review meetings will be developed by the project management, in consultation with implementation partners and key stakeholders and incorporated in the Project Inception Report. This schedule will include: (i) tentative time frames for the Climate Change Council Meetings acting as Project Steering Committee and (ii) project related Monitoring and Evaluation activities. When necessary and useful, respective Monitoring and Evaluation reports will be prepared to take corrective actions.

<u>Day to day monitoring</u> of implementation progress will be the responsibility of the Climate Change Programme Unit of UNDP based on the project's Annual Work plan and its indicators. The Project Team will inform the UNDP-CO of any delays or difficulties faced during implementation so that the appropriate support or corrective actions can be adopted in a timely and remedial fashion.

<u>Periodic monitoring</u> of implementation progress will be undertaken by the UNDP-CO through quarterly meetings with the project proponent, or more frequently as deemed necessary. This will allow parties to take stock and to resolve any problems or issues pertaining to the project in a timely fashion to ensure smooth implementation of project activities.

F. EXPLAIN THE DEVIATIONS FROM TYPICAL COST RANGES

N/A

(WHERE APPLICABLE):	
(WHERE APPLICABLE):	

PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT(s) ON BEHALF OF THE GOVERNMENT(s): (Please attach the *Operational Focal Point endorsement letter(s)* with this template).

NAME	Position	MINISTRY	DATE (Month, day, year)
Aramayis Grigoryan	Minister, GEF Operational Focal Point		March, 23, 2016

B. CONVENTION PARTICIPATION

CONVENTION	DATE OF RATIFICATION/	NATIONAL FOCAL POINT	
	Accession (mm/dd/yyyy)		
UNCBD	03/31/1993	Mr. Gagik Manuchary	AN
UNFCCC	03/29/1993	Mr. Aram Gabrielyan	
UNCCD	06/23/1997	Mr. Ashot Vardevanya	N
STOCKHOLM CONVENTION	10/22/2003	Mr. Anahit Alexsanyan	
	DATE SIGNED (MM/DD/YYYY)	NATIONAL FOCAL POINT DATE OF NOTIFICATION UNDER ARTICLE 7 TO TO MINAMATA CONVENTION SECRETARIAT	
MINAMATA CONVENTION			

C. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF policies⁴ and procedures and meets the standards of the GEF Project Review Criteria for Climate Change Enabling Activity approval in GEF 6. Agency Date **Project Contact** Coordinator, Signature (Month, Telephone E-mail Address Person Agency name day, year) Ms. Adriana April, Mr. Yamil +1-212yamil.bonduki@undp. 13,2016 Bonduki, 906-6659 Dinu, org **UNDP-GEF** Sr. Program Executive Manager, Coordinator **UNDP-GEF** (Green-LECRDs)

⁴ GEF policies encompass all managed trust funds, namely: GEFTF, LDCF, and SCCF