
Readiness Proposal

**with the United Nations Development Programme (UNDP)
for the Republic of Armenia**

04 June 2018 | Adaptation Planning



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Readiness and Preparatory Support Proposal

How to complete this document?

- A readiness guidebook ([URL](#)) is available to provide information on how to access funding under the GCF Readiness and Preparatory Support programme. It should be consulted to assist in the completion of this proposal template.
- This document should be completed by National Designated Authorities (NDAs) or focal points with support from their delivery partners where relevant.
- Please be concise. If you need to include any additional information, please attach it to the proposal.
- Information on the indicative list of activities eligible for readiness and preparatory support and the process for the submission, review and approval of this proposal can be found on pages 11-13 of the guidebook

Where to get support?

- If you are not sure how to complete this document, or require support, please send an e-mail to countries@gcfund.org. We will aim to get back to you within 48 hours.
- You can also complete as much of this document as you can and then send it to countries@gcfund.org. We will get back to you within 5 working days to discuss your submission and the way forward.

Note: Environmental and Social Safeguards and Gender

Throughout this document, when answering questions and providing details, please make sure to pay special attention to environmental, social and gender issues, in particular to the situation of vulnerable populations, including women and men. Please be specific about proposed actions to address these issues. Consult page 4 of the readiness guidebook for more information.

SECTION 1: SUMMARY	
1. Country submitting the proposal	<p>Country name: Armenia Name of institution (representing National Designated Authority or Focal Point): Ministry of Nature Protection of the Republic of Armenia Name of official: Artsvik Minasyan Position: Minister of Nature Protection, NDA Telephone: 37411 818 500 Email: interdpt@mp.am Full Office address: Ministry of Nature Protection, Government bld. #3, Republican Square, Yerevan, Armenia</p>
2. Date of initial submission	14/02/2017
3. Last date of resubmission (if applicable)	27/10/2017 <i>[GCF Secretariat received this version of the proposal on 14 May 2018]</i>
4. Which entity will implement the Readiness and Preparatory Support project? (Provide the contact information if entity is different from NDA/focal point)	<p><input type="checkbox"/> National Designated Authority <input checked="" type="checkbox"/> Delivery partner <input type="checkbox"/> Accredited entity</p> <p>Name of institution: United Nations Development Programme (UNDP) Name of official: Rohini Kohli Position: Lead Technical Specialist, National Adaptation Plan - Global Support Programme (NAP-GSP), Green Low Emission Climate Resilient Development Strategies Telephone: +66 (2) 304 9100 ext. 2132 Email: rohini.kohli@undp.org Full Office address: UNDP - Global Environment Facility 4th Floor, UN Service Building, Rajadamnern Nok Avenue, Bangkok, Thailand</p>
5. Title of the Readiness and Preparatory Support Proposal	National Adaptation Plan (NAP) to advance medium and long-term adaptation planning in Armenia
6. Brief summary of the request (500 words) <i>Please describe the current status of NAP in country and what the readiness support is aiming to achieve</i>	<p>The Government of Armenia launched its national stakeholder’s consultations for the national adaptation plan (NAP) process in June 2016. A preliminary action plan for NAP implementation was formulated during the stocktaking exercise (annexed to this proposal) and approved by the representatives of key sectors and the Ministry of Nature Protection. The Government sees the NAP process as a key step to achieving the adaptation objectives of its 2015 Nationally Determined Contribution (NDC).</p> <p>Currently, there is no comprehensive framework for adaptation in Armenia, though the NDC and the National Communications provide a preliminary assessment of adaptation priorities. To address this gap, the project aims to support Armenia with developing a national plan for climate change adaptation (CCA) that is iterative, i.e. the focus is on the process and on strengthening foundational capacities to ensure that they are institutionalized for long-term sustainability. The project aims to address the barriers identified during the stocktaking, as presented below, to support prioritization of investments in CCA in six priority sectors, and to increase the identification of finance options for the implementation of the prioritized adaptive options identified throughout this project.</p> <p>With the development of a NAP process, Armenia will lay the groundwork for systemic and iterative identification of medium- and long-term risks, CCA priorities and specific activities that promote climate adaptive and resilient growth in its key sectors. Concurrently, as part of the localization of the Sustainable Development Goals (SDGs), the NAP process will</p>

	<p>contribute to the formulation of corresponding national climate-responsive indicators and targets.</p> <p>The main outputs of this proposed project are:</p> <ul style="list-style-type: none"> • Output 1 will identify information and capacity gaps, and support improved synergies and coordination between and across sectorial initiatives. Synergies will be strengthened vertically, at the different levels of the economy, and horizontally, between the different sectors affected by climate change, to reduce duplication of effort, pool scarce resources and ensure a more coherent and comprehensive approach to integration of CCA responses into development planning. • Under Outputs 2 and 3, the project will build on and strengthen institutional, functional and technical capacities to plan for gender sensitive CCA and improve the existing climate-related knowledge and evidence base to support more comprehensive and consistent assessments of climate risks, vulnerabilities and impacts for improved implementation at the national and local levels. • Activities under Output 4 will establish climate change adaptation monitoring capacity to efficiently and effectively integrate CCA into national and sectorial planning and management. • Activities under Output 5 will develop a CCA financing strategy. As part of this strategy, the project will also support the engagement of the private sector through a comprehensive assessment of the enabling environment and barriers, in line with Armenia’s priorities for the development of the private sector. <p>The main beneficiaries of the project are the Inter-Agency Coordination Council, the State Hydro-meteorological and Monitoring Service (Hydromet) of the Ministry of Emergency Situations, the Ministry of Nature Protection and the priority sectors (water resources, agriculture, energy, health, tourism and human settlements) identified in the 2015 NDC.</p>
<p>7. Total requested amount and currency</p>	<p>2,999,593.00 USD</p>
<p>8. Anticipated duration</p>	<p>The proposal period is for 4 years [48 months]: 2018 – 2021</p>
<p>9. Is the country receiving other Readiness and Preparatory Support related to the GCF?</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>In parallel to this proposal, Armenia has submitted a request for Green Climate Fund Readiness and Preparatory Support, an 18-month project. With the Readiness and Preparatory Support project, the Government of Armenia seeks to strengthen the National Designated Authority (NDA) to the GCF and establish a foundation for the development of a strategic framework for engagement with GCF, including the preparation of concept notes within the country programme.</p> <p>This proposal, which focuses on strengthening the conditions for improved implementation of climate adaptation measures, will build on existing institutional arrangements and improved NDA capacity. The implementation of the NAP project will benefit from the strategic framework for engagement with the GCF and from the complementary national strategic investment framework that will be developed. The adaptive options identified, assessed and prioritized through the NAP project activities, specifically the pipeline of adaptation projects, will feed back into the national strategic investment framework and inform its adaptation component iteratively, throughout the project life span.</p>

SECTION 2: COUNTRY READINESS LOGICAL FRAMEWORK¹

Please complete the table below, which enables a country to assess its capacity and set targets for advancing its NAP, including proposed outputs and activities to improve the country's institutional capacity to achieve key objectives of NAP.

Note: Section 3 elaborates on the logical framework

OUTPUTS AND ACTIVITIES	BASELINE ²	TARGET	INPUTS <i>(including key deliverables where applicable)</i>
1. Gaps assessed and national mandate, strategy and steering mechanism established	2-8	6-8	
1.1 Define the institutional arrangements for the NAP process	X0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 Inter-Agency Coordination Council on UNFCCC Implementation non-operational	<input type="checkbox"/> 0 <input type="checkbox"/> 1 X2 Inter-Agency Coordination Council on UNFCCC Implementation is operational, has increased participation and well defined CCA mission; Conceptual note for NAP approved Parliament and other ministries sensitized on NAP process and CCA	<p>1.1.1 Strengthen the institutional arrangements of the Inter-Agency Coordination Council on UNFCCC Implementation to enable it to serve as the coordination mechanism for adaptation through the following inputs (M1–M27):</p> <ol style="list-style-type: none"> Define the mission and mandate of the Inter-Agency Coordination Council on adaptation related activities as well as the roles and responsibilities of its stakeholders and its supporting inter-agency working group, Define an action plan and timeframes of the NAP planning cycle and of the relevant monitoring and evaluation (M&E) systems, Establish at least two permanent technical working groups to support the Inter-Agency Coordination Council activities related to adaptation issues <p>Deliverable: Mandate of the IACC, NAP management arrangements and TORs for the permanent technical working groups formulated and endorsed</p> <p>1.1.2 Develop a conceptual note for NAP implementation (per Government Decision 49-8 of 2016) within the overall approach on adaptation as recommended in the NDC, and submit for approval to the Government (M1–M27)</p> <p>Deliverable: Approved conceptual note for NAP implementation</p> <p>1.1.3 Strengthen technical leadership within key ministries by targeting national and sub-national decision-makers with awareness raising and technical capacity building to improve support for climate action and participation in the Inter-Agency Coordination Council in alignment with the Sendai Action Plan (M1–M48)</p>

¹ Please provide detailed logical framework provided as Annex I

² Scale: 0) Inexistent to limited progress, 1) Good progress towards the output, 2) Substantial progress towards the output

			Deliverable: Parliament and other ministries sensitized on NAP process and CCA through at least 3 training sessions and workshops
1.2 <i>Identify and systematize available information on climate change impacts, vulnerability and adaptation, and assess gaps</i>	X0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 Fragmented data gathering in multiple, uncoordinated data locations; No inventory of CCA interventions	<input type="checkbox"/> 0 <input type="checkbox"/> 1 X2 Data is compiled and stored in well-defined locations; Data gaps are identified Inventory of existing practices, plans and projects in place	<p>1.2.1 Compile and synthesize available analyses of current and future climate scenarios in the 6 priority sectors (water resources, agriculture, energy, health, tourism and human settlements) to complement on-going capacity building activities.), at the national and regional levels, develop a work-plan to address gaps, and conduct additional analysis to improve the ability to provide local level assessments (M1–M24); Deliverable: Report/compilation of existing climate scenarios at the national and regional levels and work-plan/strategy to address gaps</p> <p>1.2.2 Compile and synthesize available socio-economic information in the 6 priority sectors, at the national and regional levels, and develop a work-plan/strategy to address gaps (M1–M24) Deliverable: Report/compilation of socio-economic information and work-plan/strategy to address gaps</p> <p>1.2.3 Compile and synthesize the existing vulnerability assessments for priority sectors and key industries, and develop a work-plan/strategy to address gaps (M1–M24) Deliverable: Report/compilation of existing vulnerability assessments and work-plan/strategy to address gaps</p> <p>1.2.4 In partnership with the State Hydro-meteorological and Monitoring Service (Hydromet), survey the state of climate information and early-warning stations, map station locations, develop a work-plan to address gaps and a funding strategy to update, or upgrade, the network to ensure comprehensive and representative coverage (M1–M24) Deliverable: Report/ Work-plan and funding strategy to address update the climate information network</p> <p>1.2.5 Assess gaps with regards to information availability and existing access processes in order to improve the ability to integrate climate and socio-economic modeling (M1–M4) Deliverable: Report/gap assessment for climate information availability and existing processes to access</p> <p>1.2.6 Prepare an inventory of sectorial, territorial and international adaptation projects, and of NGO driven adaptation activities to analyze lessons learned and successful implementation of adaptation experiences in order to identify options to scale up (M1–M7) Deliverable: Report/inventory and lessons learned analysis of sectorial, territorial and international adaptation projects that identifies options to scale up</p> <p>1.2.7 Compile existing sectorial strategies and identify existing adaptation programmes/projects, to detect synergies between development and adaptation objectives, policies, plans and programs,</p>

			<p>including synergies with wider strategic frameworks, such as Agenda 2030/SDGs and the Sendai Framework, assess gaps and opportunities that offer entry points for adaptation to inform the development of adaptation plans (3.2.1) (M1–M9)</p> <p>Deliverable: Report/technical analysis of existing sectorial strategies and synergies/entry points with wider national and international strategic frameworks to facilitate the integration of CCA into development planning processes</p>	
2	Climate evidence and knowledge-base for the compilation of a NAP strengthened	0-6	3-6	
2.1	Improve access to and use of climate data	<p>X0 <input type="checkbox"/>1 <input type="checkbox"/>2 Uncoordinated Data gathering; Partial hazard and risk maps, and vulnerability assessments</p>	<p><input type="checkbox"/>0 <input type="checkbox"/>1 X2 Data gathering and coordination mechanisms in place;</p> <p>Hazard and risk maps, and vulnerability assessments updated;</p> <p>Communication and use of climate information improved;</p> <p>Institutional capacity on CCA improved</p>	<p>2.1.1 Update, and where needed develop, critical hazard and risk maps from hydro-meteorological phenomena, in the 6 priority sectors, with precedence given to those risks affecting water resource management, crop production, health, tourism and settlements (M1–M18)</p> <p>a. Where needed, update the national and sectorial climate impact scenarios</p> <p>b. Where needed, update the national and sectorial vulnerability assessments</p> <p>c. Quantify the socioeconomic impacts of climate change in the priority sectors</p> <p>Deliverable: Updated multi-hazard and comprehensive risk and vulnerability maps in the 6 priority sectors</p> <p>2.1.2 Improve communication processes between Hydromet and end users, such as agriculture extension services, farmer unions and water user associations, and improve dissemination of the end-products by establishing an affordable process for its access and use to ensure effective use of available climate information (M18–M48)</p> <p>Deliverable: Improved access to and increased use of Hydromet data</p> <p>2.1.3 Update the existing multi-sectorial climate data coordination and exchange processes (M27–M48)</p> <p>a. Review the suitability of the existing multi-sectorial data coordination system for climate data exchange and management</p> <p>b. Formulate a data collection and data sharing process strategy to strengthen information collection, production and dissemination mechanisms</p> <p>Deliverable: Multi-sectorial climate data collection and data sharing process strategy</p>
2.2	Identify and address capacity gaps and weaknesses to ensure local ownership of the NAP process	<p>X0 <input type="checkbox"/>1 <input type="checkbox"/>2 Major CCA capacity gaps</p>	<p><input type="checkbox"/>0 <input type="checkbox"/>1 X2 CCA capacity gaps addressed;</p>	<p>2.2.1 Identify the current baseline of national and sectorial expertise on vulnerability assessment and adaptation planning, review, and implement training over four years (M1–M48)</p> <p>a. Based on the identified gaps and needs develop a plan to support training and capacity building on climate adaptation;</p> <p>b. Improve the institutional arrangements for managing and monitoring mudflow clearance</p>

		<p>Institutional capacity on CCA improved</p> <p>Relevant training programs developed and sustained</p>	<p>and consider establishing an <i>ad hoc</i> working group as part of the climate related coordination mechanism</p> <p>c. Develop a mechanism and a process to ensure the sustainability of climate adaptation related training programs for government employees by designing a centralized database of CCA-related materials accessible to all ministries to be housed in the Ministry of Nature Protection and the Public Administration Academy or Crisis Management State Academy of the Ministry of Emergency Situations</p> <p>Deliverable: Training module available, and at least 4 training workshops delivered; and CCA integrated into government employee re-qualification reviews</p> <p>2.2.2 Strengthen capacities of the Ministry of Nature Protection and the Inter-Agency Coordination Council to improve oversight on adaptation through tools such as a web-based information dashboard (M18–M48)</p> <p>Deliverable: At least 5 training sessions delivered, and web-based information dashboard developed</p> <p>2.2.3 Develop a training program focused on climate impacts and climate vulnerabilities assessment methodologies and approaches (for Hydromet and sectorial technical planners, as well as sectorial and university researchers) and implement the training over four years. The trainings will be arranged in collaboration with national competent institutions and/or universities. This will enable sectorial and institutional entities to iteratively and sustainably provide training and develop capacity on climate related impacts and vulnerabilities assessments beyond the life of the project (M8–M48)</p> <p>Deliverable: Training module available, and at least 3 training workshops delivered</p> <p>2.2.4 Develop a training program focused on socio-economic assessments and valuation methodologies (for sectorial technical planners, as well as sectorial and university researchers) and implement the training over four years. The trainings will be arranged in collaboration with national competent institutions and/or universities. This will enable sectorial and institutional entities to iteratively and sustainably provide trainings and develop capacity on socio-economic assessments beyond the life of the project (M8–M48)</p> <p>Deliverable: Training module available, and at least 3 training workshops delivered</p> <p>2.2.5 Support the Agriculture Extension Services to provide training on climate adaptation to end users and implement training over four years (M20–M48)</p> <p>Deliverable: Training module available, and at least 5 training workshops delivered</p>
<p>3 NAP implementation facilitated</p>	<p>0-6</p>	<p>3-6</p>	

<p>3.1 Enhance national capacity for adaptation planning</p>	<p>X0 <input type="checkbox"/>1 <input type="checkbox"/>2 Country specific knowledge gaps; Lack of appropriate tools and methodologies</p>	<p><input type="checkbox"/>0 X1 <input type="checkbox"/>2 Country specific guidelines, tools and methodologies developed and used Institutional capacity on CCA improved</p>	<p>3.1.1 Develop methodologies, screening tools and guidelines to integrate gender sensitive adaptation in national and sectorial plans and budgets (M9–M48)</p> <ul style="list-style-type: none"> a. Develop guidelines for local (settlement and municipal) level risk assessment and adaptation planning b. Develop guidelines for climate resilient urban development to support identification of urban adaptation options c. Develop guidelines to ensure comprehensive and consistent local (municipal and settlement level) data collection for assessment of climate related risks and related damages d. Develop budget analysis tools for climate risks and integrate them into decision-making and budgetary allocation processes in the priority sectors e. Develop tailored training and mentoring program for technical staff on application of tools and guidelines in their day-to-day activities f. Where possible, harmonize new methodologies and tools with existing ones <p>Deliverable: At least 5 gender sensitive methodologies, guidelines and screening tools developed and integrated into use</p> <p>3.1.2 Provide training and build awareness on climate-sensitive budgeting and potential mainstreaming approaches with key ministries, specifically the Ministry of Emergency Situations, the Ministry of Agriculture, the Ministry of Energy Infrastructures and Natural Resources (Water Management Agency), the Ministry of Territorial Administration and Development, the Ministry of Finance and the Ministry of Healthcare (M30–M48)</p> <p>Deliverable: Training module available, and at least 8 training workshops delivered</p>
<p>3.2 Develop a national adaptation implementation strategy</p>	<p>X0 <input type="checkbox"/>1 <input type="checkbox"/>2 Adaptation not included in national and sectorial development plans</p>	<p><input type="checkbox"/>0 X1 <input type="checkbox"/>2 Sectorial adaptation plans developed; Systematic process for prioritization of adaptation measures developed;</p>	<p>3.2.1 Develop adaptation components for the sectorial development plans, or their equivalent, for four of the six priority sectors for adaptation identified in the NDC (i.e., water resource management, agriculture (focus on crop production) and forestry, health, tourism and settlements) that will include sectorial capacity development plans and development of prioritized adaptation options (M5–M33)</p> <p>Deliverable: Six sectorial adaptation plans developed</p> <p>3.2.2 Undertake a screening and assessment of the interventions identified for the <i>Long-term (up to 2036) development directions of the RA Energy System Strategic Program</i>, and develop a work-plan to integrate adaptation into the Program (M4–M12)</p> <p>Deliverable: CCA screening and recommendations for <i>Long-term (up to 2036) development directions of the RA Energy System Strategic Program</i> completed</p>

		<p>GCF project concepts developed;</p> <p>Action plan for the second NAP cycle developed</p>	<p>3.2.3 Test guidance on climate risk assessments of human settlements and critical infrastructure at the marz (region) level for at least 1 marz (M21–M48)</p> <p>Deliverable: Two territorial climate risk assessments completed</p> <p>3.2.4 From the adaptation plans gathered under 3.2.1, identify a prioritized pipeline of strategic adaptation interventions for immediate and medium- and long-term implementation (M22–M48)</p> <ul style="list-style-type: none"> a. Develop a cross-sectorial evidence based systematic process to undertake prioritization of adaptation options for medium- and long-term adaptation planning and budgeting b. Identify a pipeline of strategic adaptation interventions, in at least five priority sectors (specifically, water resource management, agriculture (focus on crop production), health, tourism and settlements), for medium- and long-term implementation c. Prioritize adaptation options based on climate vulnerability, contribution to the country strategic development priorities and related financial and social cost-benefit d. Identify a phased implementation strategy for the prioritized adaptation options <p>Deliverable: Phased implementation strategy for prioritized CCA actions</p> <p>3.2.5 Based on the progress made under the first NAP cycle (2018 – 2021), develop an action plan for the second NAP cycle (2022 – 2025) (M36–M48)</p> <p>Deliverable: Action plan for the second NAP cycle (2022 – 2025)</p> <p>3.2.6 Identify, design and prepare at least 2 CCA project concepts for GCF support as a preliminary step towards development of a pipeline of adaptation projects (M37–M48)</p> <p>Deliverable: At least 2 GCF CCA project concepts developed</p>
<p>3.3 <i>Compile and communicate the National Adaptation Plan</i></p>	<p>X0 <input type="checkbox"/>1 <input type="checkbox"/>2 CCA not well understood among decision-makers and technical staff; Basic CCA awareness and knowledge;</p>	<p><input type="checkbox"/>0 <input type="checkbox"/>1 X2 CCA and NAP well understood among decision-makers and technical staff;</p> <p>General awareness of climate change</p>	<p>3.3.1 Develop and implement a stakeholder outreach strategy to support medium- and long-term adaptation planning. This is to sensitize policy makers, stakeholders, the general public and the private sector on the importance of adaptation and to ensure that advocacy on climate adaptation becomes a national priority (M1–M48)</p> <ul style="list-style-type: none"> a. Develop actionable engagement and gender action plans b. Define mandatory requirements for regular communication and awareness activities in all sectors as part of their annual planning framework c. Develop and deliver knowledge management and outreach products on gender sensitive CCA

	Local knowledge and experience in CCA not shared	vulnerabilities and adaptation improved; CCA awareness and knowledge improved Participate in at least 3 regional or international learning and knowledge sharing events	<ul style="list-style-type: none"> d. Organize regular (e.g., annual) stakeholder (local, sectorial, national, private, public) thematic consultations and workshops to raise awareness on risks and opportunities related to climate change and the NAP process in particular e. Communicate the NAP to national partners for discussion, approval and the improvement of feedback mechanisms f. Organize regular training on an annual basis for media and journalists on key aspects of climate change vulnerabilities and gender sensitive adaptation opportunities, and develop an award for recognizing communication distinction <p>Deliverable: CCA and NAP stakeholder outreach and awareness-raising strategy (document) developed and implemented through at least 8 workshops</p> <p>3.3.2 Develop a process to facilitate the communication and integration of adaptation into school curricula and awareness rising (M18–M48) Deliverable: Process to facilitate the integration of CCA into school curricula developed</p> <p>3.3.3 Participate in regional or international learning and knowledge sharing events and other such fora, to share experience and disseminate information on the NAP development process and on climate adaptation to regional and international partners and stakeholders (M20–M48) Deliverable: Participate in at least 3 regional or international learning and knowledge sharing events</p>
4 Mechanisms for Reporting, Monitoring and Review of NAPs and adaptation progress in place	0-6	3-6	
4.1 Enhance capacity to monitor the NAP and adaptation progress	X0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 No M&E system for CCA	<input type="checkbox"/> 0 X1 <input type="checkbox"/> 2 Gender sensitive and transparent monitoring system developed; Gender-responsive CCA indicators and criteria developed;	<p>4.1.1 Identify existing M&E activities and processes within government that offer entry points for adaptation and the institutions responsible (M20–M45) Deliverable: Report/compilation of existing M&E activities and processes to identify entry points for CCA</p> <p>4.1.2 Initiate the development of a gender sensitive and transparent monitoring system for the evaluation and revision of the NAP process at national and sectorial level (M25–M48):</p> <ul style="list-style-type: none"> a. Develop gender-responsive CCA indicators and criteria for review and monitoring of national and sectorial progress on climate adaptation in the priority sectors b. Support integration of the relevant CCA indicators and criteria into legislation, processes and regulations, as needed, as well as integration with the monitoring of the Sustainable Development Goals c. Establish a reporting framework by which all sectors will need to report regularly to the Inter-Agency Coordination Council on implementation of UNFCCC agreements/decisions,

			<p>and climate adaptation in particular, with a formalized reporting format, and consider linking the NAP reporting cycle to the National Communication reporting cycle</p> <p>d. Formalize the process for updating the adaptation components of national and sectorial development plans</p> <p>Deliverable: Gender sensitive M&E system for the CCA and NAP process</p> <p>4.1.3 Before the end of the project, review the NAP processes, activities and lessons learned in preparation of the potential up-scaling of the identified adaptation activities (M40–M48)</p> <p>Deliverable: Report/lessons learned for CCA up-scaling</p>
5 Funding strategy for the NAP and CCA formulated	0-4	2-4	
5.1 Establish a financing strategy for an iterative NAP process	X0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 Financial needs of CCA not identified	<input type="checkbox"/> 0 X1 <input type="checkbox"/> 2 Medium and long-term financial needs to support adaptation determined; Funding sources for CCA implementation identified	<p>5.1.1 Determine the long-term financial needs to support adaptation (M25–M48):</p> <p>a. Review current adaptation related public expenditures and determine the medium-term budget needs;</p> <p>b. Review funding needs for the prioritized adaptation options in Activities 2.2 and 3.1</p> <p>c. Take stock and assess existing and potential financing options, including outreach to donor community</p> <p>d. Identify funding sources to explore co-financing of the NAP process (particularly its second iteration/cycle) and implementation of the identified, prioritized adaptation options</p> <p>Deliverable: CCA funding gap and CCA action pipeline appraised and funding sources identified</p> <p>5.1.2 Sensitize stakeholders on nationally and internationally available financing mechanisms (M30–M48)</p> <p>Deliverable: Training module available, and at least 2 training and awareness sessions delivered</p>
5.2 Identify and recommend policy options for scaling up financing for adaptation, including through public-private partnerships	X0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 No private sector engagement in CCA	<input type="checkbox"/> 0 X1 <input type="checkbox"/> 2 Community and private sector engagement in CCA improved; Environmental and social safeguards' guidelines for private sector developed;	<p>5.2.1 Establish community and public-private partnerships to support sectorial, sub-national and local adaptation planning and actions (M25–M48)</p> <p>Deliverable: Training module available, and at least 2 training and awareness sessions delivered</p> <p>5.2.2 Assess private sector engagement in CCA (M25–M48)</p> <p>a. Develop a strategy to strengthen the enabling environment for private sector investments for climate change adaptation</p> <p>b. Develop a set of environmental and social safeguards' guidelines for CCA to facilitate private sector project development</p> <p>c. Work with national banks and investments funds to adopt these safeguards into their project evaluation processes to support increased private sector engagement</p>



			Deliverable: Report/strategy to strengthen the enabling environment for CCA investments and environmental and social safeguards' for private sector investments developed	
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SECTION 3: ADDITIONAL INFORMATION

Please explain how this grant will help deliver on the country's NAP as identified above and build on institutions, processes or existing work already underway in the country (maximum 1000 words)

Please provide a brief description of:

- a. Context
- b. Baseline situation
- c. Objectives, outcomes and impact
- d. Stakeholders' consultation

Context

Armenia, a small, landlocked country in the Caucasus region, is one of the most vulnerable countries to climate change, in the Europe and Central Asia region. The country was ranked 85 out of 188 in the UNDP 2015 Human Development Index. It is heavily reliant on agriculture. A third of the population is rural (36.7%), and it is estimated that 35% of Armenia's total population (3.27 million) lives under the national poverty line.³ Poverty is exacerbated by an unemployment rate of 28.6%. When combined with Armenia history of droughts, soil erosion and natural disasters, rural low-income communities are particularly vulnerable to the impacts of climate change due to heightened water insecurity, increased health risks, reduced agricultural productivity and increased incidences of extreme events.⁴

Climate change impacts are already evident in Armenia. Between 1935 and 2012, annual mean temperature increased by more than 1°C, while annual precipitation decreased by close to 10%. The decrease in precipitation has not been spatially uniform, with the northeastern and central regions becoming more arid, and the southern and northwestern areas, including the Lake Sevan basin, experiencing increased precipitation. These climate trends place Armenia's water resources under severe threat. The spatial and seasonal distribution of water resources in Armenia is extremely uneven. River flows are expected to decrease by 6.7% (by 2030), 14.5% (by 2070), and 24.4% (by 2100) compared to the 1961–1990 baseline period. In addition, expected ecosystem changes include a 21% decrease in the alpine zone area and a vertical shift of 100–150 m; a 30% expansion of semi-desert and desert areas; a 4% expansion of the steppe belt and a concurrent vertical shift by 150–200 m. By 2030, vertical movement of the forest belt by 100–200 m is also expected with significant negative impact on tree and plant species, reducing the environmental services provision of natural ecosystems. The 1935–2012 period experienced a significant increase in the frequency and intensity of hazardous hydro-meteorological phenomena, such as extreme frost, extreme heat, heavy rainfall and hailstorms. Analysis of recent landslides shows an increase in climate driven events, such as mudflows. More than 4% of the country – in 2,500 discrete areas – has been identified as highly-vulnerable to climate driven events. The increasing scope and intensity of extreme events has also resulted in increased frequencies of high-risk situations. In recent years, floods and flash floods have caused significant damage to almost all of the country's *marz*, and to the northern ones in particular. In 2010, floods caused 45 rock falls. Although more limited in the territory, avalanches also endanger a significant number of settlements and communication routes. The damage caused by these extreme events (i.e., hail, frost, strong winds, heavy rainfalls, floods, droughts, heat waves) is also contributing to the generation, and escalation, of hazardous incidences, such as landslides, avalanches, forest wildfires, rock falls and infectious disease outbreaks. Agriculture is greatly at-risk and these events have already increased crop losses by 10–15%.

Recognizing that reducing Armenia's vulnerability to climate change requires greater investments and greater integration of CCA and disaster risk reduction (DRR), in 2016, the Government began discussing the NAP process by conducting national consultations and undertaking a rapid stocktaking exercise. The stocktaking provides a qualitative assessment of the institutional framework and capacities relevant to the NAP process. The NAP is fully aligned with the adaptation component of the NDC, and is seen as one key in establishing a constructive feedback loop between Armenia's national and international decision-making on climate change.

The project aims to address the current barriers to prioritized national investment in CCA, and to increase the availability of finance for the implementation of the priority actions identified in the national strategic framework. With

³ World Bank. 2012. The Republic of Armenia: Climate Change and Agriculture Country Note. Available at: www.worldbank.org/eca/climateandagriculture

⁴ Stanton E.A. et al. 2009. The Socio-Economic Impact of Climate Change in Armenia. Stockholm Environment Institute, Somerville, MA

the development of a NAP process, Armenia will lay the groundwork for systemic and iterative identification of medium- and long-term risks, CCA priorities and specific activities that promote climate adaptive and resilient growth in its key sectors. In the pivot away from *ad-hoc*, project based approaches to a more coherent and strategic CCA approach that is integrated with implementation of the Paris Agreement, the Sendai Framework and the Agenda 2030/SDGs, Armenia can realize a long-term paradigm shift towards reducing the climate risks it faces.

If the establishment of a national strategic framework (i.e., NAP process) is achieved and the technical capacity in the national institutions is built up, then demand for climate adaptive “products” will increase within sectors, driving the broadening of CCA activities across the country. This highlights CCAs unique position as both an ongoing process and an intermediate, normative, target that can help counter institutional tendencies towards inaction due to the high levels of uncertainty that accompany the expected needs from climate change impacts. By building the evidence base for (demonstration of) effective action, this project will ensure that transformative, longer-term outcomes can be achieved through mobilization of prioritized project based financing.

Baseline Situation

Knowledge on climate change impacts, vulnerabilities and initial assessment of adaptation priorities in Armenia results from work conducted as part of the First (1998), Second (2010) and Third National Communications (2015) to the UFGCC. While sector specific and regional studies and projects provide important information on climate modeling, impact analysis, vulnerabilities and potential adaptation measures; studies and associated data collection processes remain fragmentary, limited and uncoordinated. The Inter-Agency Coordination Council, whose membership includes 14 ministries and two key agencies, lacks clear mandates and responsibilities; and its representatives have limited knowledge of climate change and its impacts. This limits its efficacy and effectiveness as a coordinating body. To date, where adaptation has occurred, it has occurred *ad-hoc* on a project base, without cross-sectorial coordination. It has been limited in scale and scope without linkages to national priorities. Moreover, dedicated actions for reducing vulnerabilities are still sporadic.

The sectorial agencies and local governments have limited dedicated capacity and lack tools and frameworks to integrate adaptation into policies and strategies. At the same time, climate related monitoring and evaluation (M&E), for both adaptation and mitigation, is embryonic.

CCA has gained importance with the NDC, which established the national climate priorities and priority sectors for adaptation; and with the National Communication that provided an initial assessment of adaptation needs. However, further integration of adaptation planning is needed. Complicating increased CCA activities are limited domestic resources to finance adaptation action. As such, the NAP is part of the systemic integration of adaptation into development planning to address climate risks more cohesively in the NDC, SDGs and Sendai Action Plan. The NAP process will provide added value and assist in addressing these limitations.

Objectives, Outcomes and Impact

This project will enable Armenia to reduce the vulnerabilities of its communities and assets. The focus is on strengthening foundational capacities and on ensuring that they are institutionalized for long-term sustainability (beyond the life of the project). By targeting priority sectors identified in the 2015 NDC (natural resources, water, agriculture, energy, health, tourism and human settlements) and ensuring multi-level capacity across administrative levels, the project enables the mainstreaming of adaptation planning into central and local governments. By improving existing risk and vulnerability analyses to produce policy-relevant and actionable risk assessments, the project strengthens both the evidence base for decision-making and the ability to effectively use the available information to identify, assess and prioritize adaptation options. The introduction of technical methodological tools ensures that the use of adaptation measures will increase within sectors, propelling demand for additional CCA investments, and enable the formulation of climate responsive financing strategies.

The impacts of these enabling activities are far reaching in that they create a climate-responsive culture that considers climate risks, including slow onset climate changes, as an integral aspect of development planning. The foundational tools and integrated climate risk assessments will enable decision-makers, at varying administrative levels, to identify current and future risks and develop appropriate adaptation and mitigation strategies and measures.

Stakeholder Consultations

The Government of Armenia sees the NAP process as key to achieving the adaptation objectives of its 2015 NDC. The NAP is also seen as one of the mechanisms for achieving the commitments of the NDC, establishing a constructive feedback loop between national and international decision-making on climate change. The Ministry of Nature Protection launched national stakeholder consultations for the NAP process in June 2016. As part of this process, a preliminary framework was envisioned based on the identified objectives of the NDC. During the UNDP-led NAP support mission and the country-based stocktaking exercise, key stakeholders, including the Ministry of Nature Protection, Hydromet, the Ministry of Energy and the Ministry of the Emergency Situations, were consulted and interviewed, and a preliminary roadmap for NAP implementation was formulated and approved by representative of the key sectors and the Ministry of Nature Protection.

As an integral part of the NAP process a stakeholder communication and engagement plan, including a gender action plan, will be formulated to ensure that a wide range of stakeholders will be consulted and engaged at all stages, of the NAP. Outreach and engagement activities will include sensitization, consultations and training workshops, and they will be tailored to reflect the needs of stakeholder to ensure that they can successfully implement the activities being undertaken. In general, engagement activities will focus on increasing stakeholder ownership and on increasing awareness and knowledge of climate adaptation's role in addressing climate change impacts to sustain long-term engagement. Stakeholders will represent government institutions, financial and technical partners, international and national non-governmental organizations and local civil society. NGOs and CBOs, such as Green Lane, Khazer, Ecolur, ICare and OxyGen, will be integral to the participatory process. The role and involvement of the private sector will also be enhanced with targeted activities.

SECTION 4: PROJECT/PROGRAMME DESCRIPTION

Describe the main activities and the planned measures of the project/programme according to each of its components.

The proposed project builds on the national climate priorities, summarized in the 2015 NDC, and aims to **advance medium and long-term adaptation planning in Armenia**. The NAP will address the main challenges to the integration of climate change adaptation into national, sectorial and local government planning and budgeting, as identified in the 2016 stakeholders' consultations and the NAP Stocktaking report. The focus is on strengthening foundational capacities for adaptation and on ensuring that they are institutionalized for long-term sustainability (beyond the life of the project). It is expected that at least two NAP iterations will be required for a complete and comprehensive mainstreaming of CCA into the national development framework and into the development plans of all sectors.

By targeting priority sectors identified in the 2015 NDC (natural resources, water, agriculture, energy, health, tourism and human settlement) and ensuring multi-level capacity across administrative levels, the project enables the mainstreaming of adaptation planning into central and local planning. By improving existing risk and vulnerability analyses to produce policy-relevant and actionable risk assessments, the project strengthens both the evidence base for decision-making and the ability to effectively use the available to identify, assess and prioritize adaptation options. The introduction of technical methodological tools ensures that the use of pro-active adaptation measures will increase within sectors, propelling demand for additional CCA investments, and enable the formulation of climate responsive and actionable financing strategies for furthering implementation of the Paris Agreement and for scaling up adaptation.

These goals will be achieved through 5 outputs and corresponding activities:

Output 1: Gaps assessed and national mandate, strategy and steering mechanism established

This output will address weaknesses in CCA coordination mechanisms, cross-sectorial engagement, and limited and compartmentalized technical skills in regard to adaptation planning and climate change in general. It will also aim to develop a long-term approach to capacity development that addresses both institutional capacity needs and individual skill development.

Sub-outcome 1.1: Define the institutional arrangements for the NAP process

It is envisioned that Armenia's NAP will be spearheaded by a multi-sectorial coordinating mechanism – the Inter-Agency Coordination Council, whose membership includes 14 ministries and two key agencies, and the Ministry of Nature Protection, building on Armenia's 2015 NDC commitments to integrate planning for CCA into national and sectorial development objectives. This includes development of a NAP Conceptual Note (per Government Decision 49-8 of 2016). This will activate the necessary lower administrative level climate change adaptation and coordination mechanisms to initiate medium and long-term adaptation

Sub-outcome 1.2: Identity and systemize available information on climate change impacts, vulnerability and adaptation, and assess gaps

As Armenia moves towards adopting a more holistic approach to adaptation and towards its integration into medium- and long-term planning, it is crucial that it rely on a strong evidence base, including the best available climate and socio-economic information, to strengthen appraisal of adaptation options, and ensure that the lessons learnt and the impacts of past initiatives are integrated into the NAP process.

This Sub-outcome will establish a coordinated knowledge base for CCA and for developing the NAP, and will focus on compiling and synthesizing available climate risks and vulnerability assessments at sectorial, subnational and national levels, assessing and filling gaps, analyzing past and on-going adaptation initiatives and identifying future adaptation options. This will include a review of available climate data, which serves as the basis for all climate-related initiatives, to improve understanding of the baseline situation, strengthen justification for CCA interventions and improve decision-making capacity. A thorough review of the available information within relevant ministries and the priority sectors (water resources, agriculture, energy, health, tourism and human settlements) is necessary as the existing data and analysis are fragmented and incomplete.

Output 2: Climate evidence and knowledge-base for the compilation of a NAP strengthened

As Armenia moves towards adopting a more holistic approach to adaptation and towards its integration into medium and long-term planning, it is crucial that it rely on a strong evidence base, including the best available climate and socio-economic information to strengthen appraisal of adaptation options, and ensure that the lessons learnt and the impacts of past initiatives are integrated into the NAP process. This will include improved understanding of the baseline situation, strengthening justification for CCA interventions and improved decision-making capacity.

Sub-outcome 2.1: Improve access to and use of climate data

This Sub-outcome will establish a coordinated knowledge base for CCA and for developing the NAP, and will focus on synthesizing and updating available climate risks and vulnerability assessments, on filling gaps, and on improved access to and use of the available climate data and its related analysis

Sub-outcome 2.2: Identify and address capacity gaps and weaknesses to ensure local ownership of the NAP process

This Sub-outcome focuses establishing the foundation for integration of CCA into national and sectorial process through the increased CCA technical capacity, training, and the development of tools, methodologies and guidelines. These will sensitize and assist sectorial technical planners in improving understanding of CCA and its implications to sectorial action. Ensuring availability of capacity and technical skills to address the challenge of climate related analysis and interventions is a key component of ensuring that the NAP becomes an established and iterative process. Activities under this Sub-outcome will focus on implementation of trainings that are focused on climate vulnerability assessment methodologies and socio-economic valuation tools (cost-benefit analysis, damage-loss, etc.). These will be developed and tested for technical planners from different sectors at national and sub-national organizations. It will also focus on identifying and implementing opportunities to mainstream gender sensitive CCA tools, methodologies, and trainings into relevant ministerial and local policies and practices to ensure cumulative improvements in national CCA activities.

Output 3: NAP implementation facilitated

Despite the recognized threat climate change poses to the country's development, and its identification in the NDC, CCA is an emerging issue in Armenia. CCA is considered a sectorial issue that needs to be further integrated into sectorial development planning and budgeting, and further aligned with national priorities. The NAP process deals with the full integration of climate change concerns and climate risks into planning, budgeting and decision-making processes in all relevant sectors and at all administrative levels. NAP implementation will be relatively limited in this first NAP cycle as it is expected that at least two NAP cycles will be required for complete and comprehensive mainstreaming. This Output reinforces the foundations for CCA planning through the NAP framework.

Sub-outcome 3.1: Enhance the national capacity for adaptation planning

This Sub-outcome will focus on training and building awareness to improve integration of best practices and adaptation interventions into sectorial activities based on country-driven experiences, to ensure the usefulness of climate related information in the planning process. In the medium and long-term, improved methodological rigor in sectorial and local plans will support an improved evidence-base for climate-sensitive budgeting and will further synergies for future NAP cycles and national development plans:

Sub-outcome 3.2: Develop a national adaptation implementation strategy

The main goal of this Sub-outcome is to identify an evidence-based prioritized pipeline of strategic CCA interventions and appraise their feasibility for medium- and long-term implementation. Activities under this Sub-outcome will focus on identifying and prioritizing medium and long-term adaptation options, and on the development of a strong link between CCA and national development goals through the identified adaptation projects. This will complement capacity building to strengthen risk management and broaden the efficacy of decision support systems.

Sub-outcome 3.3: Compile and communicate the National Adaptation Plan

This activity focuses on support for NAP mainstreaming with a communication and outreach strategy to sensitize policy makers and all stakeholders, including the general public, on the importance of adaptation and to ensure that advocacy climate adaptation becomes a national priority. It will also ensure that awareness, once raised, is sustained. The communication and outreach strategy will be supported with an actionable engagement plan and a gender action plan. In addition, this Sub-outcome will help organize regular (e.g., annual) stakeholder (local, sectorial, national, private, public) thematic consultations and workshops to raise awareness on threats and opportunities related to climate change and the NAP process in particular. Knowledge management and outreach products will also be created as part of this effort.

Output 4: Mechanisms for Reporting, Monitoring and Review of NAPs and adaptation progress in place

This Output will contribute to essential functions 9 and 10 of the NAP process: "Facilitating and monitoring, review and updating of adaptation plans over time, to ensure progress and effectiveness of adaptation efforts and to demonstrate how gaps are being addressed" and "Coordinating reports and outreach on the NAP process to stakeholders nationally and internationally on progress to the Convention." It would also go beyond the NAP, to include monitoring of adaptation interventions in the wider national development context.

Activity 4.1: Enhance capacity to monitor the NAP process and adaptation progress

The availability of up to date has a significant impact on the ability to make informed and effective CCA decisions. At present, there is no harmonized data collection and distribution platform for CCA and monitoring and evaluation (M&E) are limited. Specific, climate-focused M&E, for both adaptation and mitigation, is needed. This Sub-outcome will complement on-going capacity building and M&E activities under existing projects and initiatives, with a focus on the development of a gender-sensitive CCA M&E system. It will also set up a system that, based on progress made under the first NAP cycle (2018 – 2021), will allow Armenia to iteratively update the NAP over time, thus contributing to essential adaptation planning functions and help develop the activities for the second NAP cycle.

Output 5: Funding strategy for the NAP and CCA formulated

The NAP will serve as an investment framework and as a means of attracting domestic and international funding for adaptation activities, from public and private sources. To ensure the sustainability of the NAP process and Armenia's on-going CCA efforts, it is critical to set up systems that will allow the NAP, and CCA in general, to be updated and

funded over time, while continuing to support capacity building and inter-sectorial collaboration. Under this Output, the Sub-outcomes focus on determining the long-term financial needs to support gender sensitive adaptation while concurrently building climate-responsive budget planning capacity, and on identifying financing sources and opportunities to enhance access to climate finance by national actors and local authorities.

Sub-outcome 5.1: Establish a financing strategy for an iterative NAP process

This Sub-outcome will focus on improving financing options for short-and medium-term implementation of priority CCA measures, on the promotion of sustainable adaptation outcomes in the medium- and long-term and on opportunities to enhance access to climate finance by national actors and local authorities. Sound investment proposals, that include a requisite base of feasibility studies, social and environment impact assessments and inclusive consultations, in particular of women and other vulnerable groups, will also be necessary to achieve the prioritized adaptation outcomes and to promote quality investments.

Sub-outcome 5.2: Identify and recommend policy options for scaling up financing for adaptation, including through public-private partnerships

Activities under this Sub-outcome will support increased private sector engagement in local CCA funding, and complement ongoing capacity building to strengthen risk management and broaden the efficacy of decision support systems. Sound investment proposals that include a requisite base of feasibility studies, social and environment impact assessments and inclusive consultations, in particular of women and other vulnerable groups, will also be necessary to achieve the prioritized adaptation outcomes and to promote quality investments.

SECTION 5: BUDGET, PROCUREMENT, IMPLEMENTATION AND DISBURSEMENT

GCF Output	Budgetary Categories Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Total	See Budget Note
Output 1. Gaps assessed and national mandate, strategy and steering mechanism established	Local consultants	53,326.00	32,942.00	0.00	0.00	86,268.00	1
	Contractual Services - Individuals	19,000.00	19,000.00	19,000.00	19,000.00	76,000.00	2
	Contractual Services – Company	18,000.00	46,000.00	28,000.00	0.00	92,000.00	3
	International Consultants	0.00	23,600.00	0.00	0.00	23,600.00	4
	Travel	0.00	5,200.00	0.00	0.00	5,200.00	5
	Audio Visual & Print Prod Costs	1,000.00	1,000.00	500.00	500.00	3,000.00	6
	Training, workshops and conferences	6,250.00	11,250.00	2,500.00	2,500.00	22,500.00	7
	Miscellaneous	2,250.00	2,500.00	2,250.00	2,250.00	9,250.00	8
			99,826.00	141,492.00	52,250.00	24,250.00	317,818.00
	Local consultants	10,738.00	48,048.00	36,764.00	31,304.00	126,854.00	9

Output 2. Climate evidence and knowledge-base for the compilation of a NAP strengthened	Contractual Services - Individuals	21,000.00	21,000.00	17,000.00	17,000.00	<u>76,000.00</u>	10
	Contractual Services – Company	0.00	210,000.00	208,750.00	0.00	<u>418,750.00</u>	11
	International Consultants	0.00	20,650.00	15,000.00	0.00	<u>35,650.00</u>	12
	Travel	0.00	5,200.00	2,600.00	0.00	<u>7,800.00</u>	13
	Audio Visual & Print Prod Costs	3,700.00	5,950.00	6,000.00	6,000.00	<u>21,650.00</u>	14
	Training, workshops and conferences	11,250.00	26,250.00	22,500.00	7,500.00	<u>67,500.00</u>	15
	Miscellaneous	5,000.00	3,250.00	3,000.00	3,000.00	<u>14,250.00</u>	16
		51,688.00	340,348.00	311,614.00	64,804.00	<u>768,454.00</u>	
Output 3. NAP implementation facilitated	Local consultants	29,848.00	64,792.00	51,324.00	28,756.00	<u>174,720.00</u>	17
	Contractual Services - Individuals	21,000.00	21,000.00	17,000.00	17,000.00	<u>76,000.00</u>	18
	Contractual Services – Company	0.00	77,500.00	67,500.00	27,500.00	<u>172,500.00</u>	19
	International Consultants	82,600.00	44,250.00	36,000.00	18,750.00	<u>181,600.00</u>	20
	Travel	25,800.00	15,400.00	12,800.00	10,200.00	<u>64,200.00</u>	21
	Audio Visual & Print Prod Costs	11,450.00	14,700.00	17,000.00	15,700.00	<u>58,850.00</u>	22
	Training, workshops and conferences	20,000.00	37,500.00	42,500.00	27,500.00	<u>127,500.00</u>	23
	Miscellaneous	2,500.00	5,250.00	5,500.00	5,500.00	<u>18,750.00</u>	24
	193,198.00	280,392.00	249,624.00	150,906.00	<u>874,120.00</u>		
Output 4. Mechanisms for Reporting, Monitoring and Review of NAPs and adaptation progress in place	Local consultants	4,004.00	19,110.00	9,100.00	9,100.00	<u>41,314.00</u>	25
	Contractual Services - Individuals	17,000.00	18,000.00	18,000.00	18,000.00	<u>71,000.00</u>	26
	Contractual Services – Company	0.00	30,000.00	35,000.00	30,000.00	<u>95,000.00</u>	27
	Audio Visual & Print Prod Costs	0.00	2,500.00	3,200.00	3,000.00	<u>8,700.00</u>	28
	Training, workshops and conferences	0.00	10,000.00	7,500.00	5,000.00	<u>22,500.00</u>	29
	Miscellaneous	1,000.00	1,500.00	750.00	750.00	<u>4,000.00</u>	30
		22,004.00	81,110.00	73,550.00	65,850.00	<u>242,514.00</u>	
	Local consultants	0.00	0.00	17,290.00	8,554.00	<u>25,844.00</u>	31

Output 5. Funding strategy for the NAP and CCA formulated	Contractual Services - Individuals	0.00	0.00	19,000.00	19,000.00	38,000.00	32
	Contractual Services - Company	0.00	0.00	172,000.00	77,000.00	249,000.00	33
	International Consultants	0.00	0.00	15,000.00	15,000.00	30,000.00	34
	Travel	0.00	0.00	2,600.00	5,200.00	7,800.00	35
	Audio Visual & Print Prod Costs	0.00	750.00	3,000.00	3,500.00	7,250.00	36
	Training, workshops and conferences	0.00	2,500.00	17,500.00	12,500.00	32,500.00	37
	Miscellaneous	0.00	250.00	1,750.00	1,750.00	3,750.00	38
		0.00	3,500.00	248,140.00	142,504.00	394,144.00	
Total Outputs		366,716.00	846,842.00	935,178.00	448,314.00	2,597,050.00	
Project management	Contractual Services - Individuals	20,963.00	22,963.00	23,463.00	23,463.00	<u>90,852.00</u>	39
	Professional Services (for Project Audit)	3,000.00	3,000.00	3,000.00	3,000.00	<u>12,000.00</u>	40
	Travel	2,000.00	2,000.00	2,000.00	2,000.00	<u>8,000.00</u>	41
	IT Equipment & Communications	5,000.00	3,000.00	2,500.00	2,500.00	<u>13,000.00</u>	42
	Office Supplies	1,500.00	1,500.00	1,500.00	1,500.00	<u>6,000.00</u>	43
		<u>32,463.00</u>	<u>32,463.00</u>	<u>32,463.00</u>	<u>32,463.00</u>	<u>129,852.00</u>	
1+2+3+4+5+PM	399,179.00	879,305.00	967,641.00	480,777.00	2,726,902.00		
Delivery Partner Fee	<u>39,917.90</u>	<u>87,930.50</u>	<u>96,764.10</u>	<u>48,078.50</u>	<u>272,690.20</u>		
TOTAL PROJECT	439,096.90	967,235.50	1,064,405.10	528,855.50	2,999,593.00		

Budget Note N#	Budget Note Description
1	<i>Pro rata</i> costs of national technical assistance (496 days at \$174/day – Approximately) to support CCA mainstreaming, compile and analyze information and support training program development
2	<i>Pro rata</i> costs of the contractual appointment of the project manager and the NAP technical specialist
3	Costs associated with contractual appointment of professional service firms to support gender sensitive CCA mainstreaming analyze information, develop and provide training and program development
4	<i>Pro rata</i> costs of international technical assistance (40 days at \$590/day – Approximately) to support shaping of NAP, gender sensitive CCA mainstreaming and analyze information
5	Costs associated with <i>pro rata</i> travel costs for international consultants and project staff, and where relevant, in-country travel costs for contracted specialists associated with stakeholder engagement
6	Costs associated with the production and distribution of communication resources (newsletters, brochures, fact sheets, etc.), outreach, lessons learnt and best practice, as well as translation of training knowledge/modules
7	Costs associated with the preparation of training and workshop material production and printing, venue and supplemental meeting needs

8	Under every outcome, a small percentage of the associated costs have been allocated as a safeguard against inflation, currency exchange fluctuations and other external shocks and contingencies that would impact current cost projections. Such costs will be reported to the GCF if and when incurred
9	<i>Pro rata</i> costs of national technical assistance (725 days at \$175/day – Approximately) to compile and analyze climate information, and develop and review of CCA options
10	<i>Pro rata</i> costs of the contractual appointment of the project manager and the NAP technical specialist
11	Costs associated with contractual appointment of professional service firms / institutions to analyze climate information, develop sectorial adaptation plans and review of CCA options
12	<i>Pro rata</i> costs of international technical assistance (60 days at \$590/day – Approximately) to support analyze climate information, support training and program development, including the development of gender specific tools and methodologies for CCA
13	Costs associated with <i>pro rata</i> travel costs for international consultants and project staff, and where relevant, in-country travel costs for contracted specialists associated with stakeholder engagement
14	Costs associated with the production and distribution of communication resources (newsletters, brochures, fact sheets, etc.), outreach, lessons learnt and best practice, as well as training knowledge/modules
15	Costs associated with the preparation of training and workshop material production and printing, venue and supplemental meeting needs
16	Under every outcome, a small percentage of the associated costs have been allocated as a safeguard against inflation, currency exchange fluctuations and other external shocks and contingencies that would impact current cost projections. Such costs will be reported to the GCF if and when incurred
17	<i>Pro rata</i> costs of national technical assistance (2 x 874 days at \$100/day – Approximately) to support CCA mainstreaming and implementation
18	<i>Pro rata</i> costs of the contractual appointment of the project manager and the NAP technical specialist
19	Costs associated with contractual appointment of professional service firms / institutions to support CCA mainstreaming and implementation
20	<i>Pro rata</i> costs of international technical assistance (302 days at \$600/day – Approximately) to support CCA mainstreaming and implementation, develop sectorial adaptation plans, and review of CCA options,
21	Costs associated with <i>pro rata</i> travel costs for international consultants and project staff, and where relevant, in-country travel costs for contracted specialists associated with stakeholder engagement. Said costs have been calculated as follows: 4,000 USD *9 missions = 36,000 USD + 3,500 USD *6 missions = 21,000 USD + local travel 45 mission days (DSA only) * 160 USD (DSA) = 7,200 USD (internal/national travel supported by UNDP across the 4 years)
22	Costs associated with the production and distribution of communication resources (newsletters, brochures, fact sheets, etc.), outreach, lessons learnt and best practice, as well as training knowledge/modules
23	Costs associated with the preparation of training and workshop material production and printing, venue and supplemental meeting needs
24	Under every outcome, a small percentage of the associated costs have been allocated as a safeguard against inflation, currency exchange fluctuations and other external shocks and contingencies that would impact current cost projections. Such costs will be reported to the GCF if and when incurred
25	<i>Pro rata</i> costs of national technical assistance (275 days at \$150/day – Approximately) to support development and use of M&E frameworks and mechanisms and compile, analyze and prepare lessons learned to prepare for second NAP cycle
26	<i>Pro rata</i> costs of the contractual appointment of the project manager and the NAP technical specialist
27	Costs associated with contractual appointment of professional service firms / institutions to support development of M&E frameworks and mechanisms

28	Costs associated with the production and distribution of communication resources (newsletters, brochures, fact sheets, etc.), outreach, lessons learnt and best practice, as well as training knowledge/modules
29	Costs associated with the preparation of training and workshop material production and printing, venue and supplemental meeting needs
30	Under every outcome, a small percentage of the associated costs have been allocated as a safeguard against inflation, currency exchange fluctuations and other external shocks and contingencies that would impact current cost projections. Such costs will be reported to the GCF if and when incurred
31	<i>Pro rata</i> costs of national technical assistance (215 days at \$120.20/day – Approximately) to support forward looking budget planning and the development of financing strategies
32	<i>Pro rata</i> costs of the contractual appointment of the project manager and the NAP technical specialist
33	Costs associated with contractual appointment of professional service firms / institutions to support forward looking budget planning and the development of financing strategies, as well as undertaking the Final evaluation
34	<i>Pro rata</i> costs of international technical assistance (50 days at \$600/day – Approximately) to support forward looking budget planning and the development of financing strategies
35	Costs associated with <i>pro rata</i> travel costs for international consultants and project staff, and where relevant, in-country travel costs for contracted specialists associated with stakeholder engagement
36	Costs associated with the production and distribution of communication resources (newsletters, brochures, fact sheets, etc.), outreach, lessons learnt and best practice, as well as training knowledge/modules
37	Costs associated with the preparation of training and workshop material production and printing, venue and supplemental meeting needs
38	Under every outcome, a small percentage of the associated costs have been allocated as a safeguard against inflation, currency exchange fluctuations and other external shocks and contingencies that would impact current cost projections. Such costs will be reported to the GCF if and when incurred
39	An Admin & Procurement Associate will be recruited to support the administration of the project operations
40	Professional services to undertake audit of the project
41	Travel for national consultants and project staff to reach project sites for project management, monitoring and implementation
42	Acquisition of laptops, software licenses, portable hard drive, printer and other peripherals, as needed, as well as related communication needs
43	Office supplies for the printing of documents for various project management activities, communication, monitoring and reporting documents and other informative documents for dissemination to key stakeholders, as appropriate

Procurement plan

The financial management and procurement of this project will be guided by UNDP financial rules and regulations (<http://web.undp.org/execbrd/pdf/UNDPFinRegsRules.pdf>). Further guidance is outlined in the financial resources management section of the UNDP Programme and Operations Policies and Procedures (POPP) ([UNDP POPP](#)). UNDP has comprehensive procurement policies in place as outlined in the 'Contracts and Procurement' section of UNDPs POPP. The policies outline formal procurement standards and guidelines across each phase of the procurement process, and they apply to all procurements in UNDP.

The project will be implemented following the UNDP Direct Implementation Modality (DIM) guidelines: https://popp.undp.org/layouts/15/WopiFrame.aspx?sourcedoc=/UNDP_POPP_DOCUMENT_LIBRARY/Public/FRM_Financial%20Management%20and%20Implementation%20Modality_Direct%20Implementation%20%28DIM%29%20Modality.docx&action=default&DefaultItemOpen=1. The DIM is the modality whereby UNDP takes on the role of Implementing Partner. In DIM modality, UNDP has the technical and administrative capacity to assume the responsibility for mobilizing and applying effectively the required inputs in order to reach the expected outputs. UNDP assumes overall management responsibility and accountability for project implementation. Accordingly, UNDP must follow all policies and procedures established for its own operations.

The following table represents the procurement plan throughout the duration of the project:

Atlas Budget Description	General Description	Contract Value	Recruitment Method ¹	Advertisement Method	Advertisement Date (quarter/year)	International or National Assignment
Local consultant	3 local consultants to support NAP development process	44,772	Desk Review	Competitive Sourcing	QTR1-YR1	National
Local consultant	5 local consultants to support analysis of climate information and identification of gaps, collection of data	24,388	Desk Review	Competitive Sourcing	QTR1-YR1	National
Local consultant	1 local consultants to survey status of climate information stations and locations	9,100	Desk Review	Competitive Sourcing	QTR1-YR1	National

Local consultant	3 local consultants for institutional capacity	22,750	Desk Review	Competitive Sourcing	QTR1-YR1	National
Local consultant	1 local consultant on communication	8,008	Desk Review	Competitive Sourcing	QTR1-YR1	National
Local consultant	1 local consultant M&E activities	7,644	Desk Review	Competitive Sourcing	QTR1-YR1	National
Local consultant	3 local consultant for risk and vulnerability assessments	40,040	Desk Review	Competitive Sourcing	QTR2-YR1	National
Local consultant	1 local consultant to support analysis of climate information and identification of gaps, collection of data	4,004	Desk Review	Competitive Sourcing	QTR3-YR1	National
Local consultant	1 local consultant on guideline development	5,460	Desk Review	Competitive Sourcing	QTR3-YR1	National
Local consultant	1 local consultant on guideline development	6,006	Desk Review	Competitive Sourcing	QTR4-YR1	National
Local consultant	2 local sectorial CCA experts	16,380	Desk Review	Competitive Sourcing	QTR1-YR2	National
Local consultant	1 local consultant on communication	8,008	Desk Review	Competitive Sourcing	QTR1-YR2	National
Local consultant	1 local consultants on data coordination mechanisms	4,004	Desk Review	Competitive Sourcing	QTR1-YR2	National
Local consultant	1 local consultants for institutional capacity	16,016	Desk Review	Competitive Sourcing	QTR1-YR2	National

Local consultant	1 local consultants on data coordination processes	8,008	Desk Review	Competitive Sourcing	QTR1-YR2	National
Local consultant	3 local consultants on training	16,016	Desk Review	Competitive Sourcing	QTR2-YR2	National
Local consultant	2 local consultant on guideline development	13,104	Desk Review	Competitive Sourcing	QTR2-YR2	National
Local consultant	2 local consultants to support NAP development process	9,646	Desk Review	Competitive Sourcing	QTR3-YR2	National
Local consultant	1 local consultant on communication	4,002	Desk Review	Competitive Sourcing	QTR3-YR2	National
Local consultant	2 local consultant on cross-cutting CCA mainstreaming	11,830	Desk Review	Competitive Sourcing	QTR3-YR2	National
Local consultant	2 local consultant M&E activities	24,570	Desk Review	Competitive Sourcing	QTR3-YR2	National
Local consultant	1 local consultants on data coordination mechanisms	8,190	Desk Review	Competitive Sourcing	QTR3-YR2	National
Local consultant	1 local consultant on CCA prioritization	8,554	Desk Review	Competitive Sourcing	QTR3-YR2	National
Local consultant	2 local consultants on training	20,020	Desk Review	Competitive Sourcing	QTR3-YR2	National
Local consultant	1 local CCA planning expert	12,012	Desk Review	Competitive Sourcing	QTR1-YR3	National
Local consultant	1 local sectorial CCA expert	10,920	Desk Review	Competitive Sourcing	QTR1-YR3	National
Local consultant	2 local sectorial CCA experts	21,840	Desk Review	Competitive Sourcing	QTR1-YR3	National
Local consultant	1 local consultant on guideline development	4,004	Desk Review	Competitive Sourcing	QTR2-YR3	National

Local consultant	1 local consultant on CCA prioritization	10,010	Desk Review	Competitive Sourcing	QTR3-YR3	National
Local consultant	1 local consultant on private sector engagement	8,190	Desk Review	Competitive Sourcing	QTR3-YR3	National
Local consultant	1 local consultants to support NAP development process	5,460	Desk Review	Competitive Sourcing	QTR4-YR3	National
Local consultant	2 local consultants on climate finance	12,790	Desk Review	Competitive Sourcing	QTR4-YR3	National
Local consultant	1 local consultant on guideline development	4,000	Desk Review	Competitive Sourcing	QTR2-YR4	National
Local consultant	1 local consultant on communication	8,350	Desk Review	Competitive Sourcing	QTR2-YR4	National
Local consultant	2 local consultant on climate finance	12,900	Desk Review	Competitive Sourcing	QTR2-YR4	National
Local consultant	1 local consultants to support NAP development process	4,004	Desk Review	Competitive Sourcing	QTR2-YR4	National
International consultant	1 IC on communication	25,850	Desk Review	Competitive Sourcing	QTR1-YR1	International
International consultant	1 IC for guideline development	25,850	Desk Review	Competitive Sourcing	QTR3-YR1	International
International consultant	1 IC to support NAP development process	28,800	Desk Review	Competitive Sourcing	QTR1-YR2	International
International consultant	1 IC on sectorial CCA mainstreaming	25,850	Desk Review	Competitive Sourcing	QTR1-YR2	International
International consultant	1 IC on training	50,700	Desk Review	Competitive Sourcing	QTR2-YR2	International
International consultant	1 IC institutional capacity	25,850	Desk Review	Competitive Sourcing	QTR1-YR3	International

International consultant	1 IC for guideline development	26,200	Desk Review	Competitive Sourcing	QTR2-YR3	International
International consultant	1 IC on climate finance	17,600	Desk Review	Competitive Sourcing	QTR4-YR3	International
International consultant	1 IC to support NAP development process	23,950	Desk Review	Competitive Sourcing	QTR2-YR4	International
International consultant	1 IC on climate finance	20,200	Desk Review	Competitive Sourcing	QTR2-YR4	International
Contractual Services Companies	CSC hydromet development strategy	36,000	Desk Review	CS with Advert	QTR1-YR1	National or International
Contractual Services Companies	CSC to support NAP development process	56,000	Desk Review	CS with Advert	QTR1-YR2	National or International
Contractual Services Companies	CSC for data coordination mechanisms	80,000	Desk Review	CS with Advert	QTR1-YR2	National or International
Contractual Services Companies	CSC for risk and vulnerability assessment	145,750	CS with Advert	Competitive Sourcing	QTR1-YR2	National or International
Contractual Services Companies	CSC for training & program development	10,500	Desk Review	CS with Advert	QTR2-YR2	National or International
Contractual Services Companies	CSC for guideline development	50,000	Desk Review	CS with Advert	QTR2-YR2	National or International
Contractual Services Companies	CSC for institutional capacity	40,000	Desk Review	CS with Advert	QTR2-YR2	National or International
Contractual Services Companies	CSC for training & program development	31,000	Desk Review	CS with Advert	QTR3-YR2	National or International
Contractual Services Companies	CSC for sectorial CCA mainstreaming	77,000	Desk Review	CS with Advert	QTR4-YR2	National or International
Contractual Services Companies	CSC for training & program development	6,000	Desk Review	CS with Advert	QTR1-YR3	National or International
Contractual Services Companies	CSC for auditing	3,000	Desk Review	CS with Advert	QTR4-YR1	National

Contractual Services Companies	CSC for training & program development	20,000	Desk Review	CS with Advert	QTR2-YR3	National or International
Contractual Services Companies	CSC for data coordination mechanisms	10,000	Desk Review	CS with Advert	QTR3-YR3	National or International
Contractual Services Companies	CSC for guideline development	20,000	Desk Review	CS with Advert	QTR3-YR2	National or International
Contractual Services Companies	CSC for M&E Activities	75,000	Desk Review	CS with Advert	QTR3-YR2	International
Contractual Services Companies	CSC for auditing	3,000	Desk Review	CS with Advert	QTR4-YR2	National
Contractual Services Companies	CSC to support NAP development process	160,000	CS with Advert	Competitive Sourcing	QTR1-YR3	National or International
Contractual Services Companies	CSC for private sector engagement	60,000	Desk Review	CS with Advert	QTR2-YR3	National or International
Contractual Services Companies	CSC for CCA prioritization	30,000	Desk Review	CS with Advert	QTR3-YR3	National or International
Contractual Services Companies	CSC for training & program development	20,000	Desk Review	CS with Advert	QTR3-YR3	National or International
Contractual Services Companies	CSC for private sector engagement	45,000	Desk Review	CS with Advert	QTR3-YR3	National or International
Contractual Services Companies	CSC for Auditing	3,000	Desk Review	CS with Advert	QTR4-YR3	National
Contractual Services Companies	CSC for training & program development	25,000	Desk Review	CS with Advert	QTR1-YR4	National or International
Contractual Services Companies	CSC to support NAP development process	30,000	Desk Review	CS with Advert	QTR1-YR4	National or International
Contractual Services Companies	CSC for auditing	3,000	Desk Review	CS with Advert	QTR4-YR4	National

Contractual Services - Individuals	Project Manager	202,200 (48 months)	CS with Advert	Competitive Sourcing	QTR1-YR1	National
Contractual Services - Individuals	Technical Specialist	134,800	CS with Advert	Competitive Sourcing	QTR2-YR1	National
IT Equipment	Various IT Equipment (Laptops, printer etc.)	13,000	Desk Review	Competitive Sourcing	QTR1-YR1	National
Office Supplies	Office Supplies	6,000	Desk Review	Competitive Sourcing	QTR1-YR1	National
Printing material	Printing material for all 107 training seminars, workshops and outreach material	96,450	Desk Review	Micro-sourcing	Varies according to need	National
Venues (107 meetings)	Venues and supplemental meeting needs for all types of stakeholder meetings (see note)	272,500	Desk Review	Micro-sourcing	Varies according to need	National
TOTAL		2,153,050				

Implementation schedule

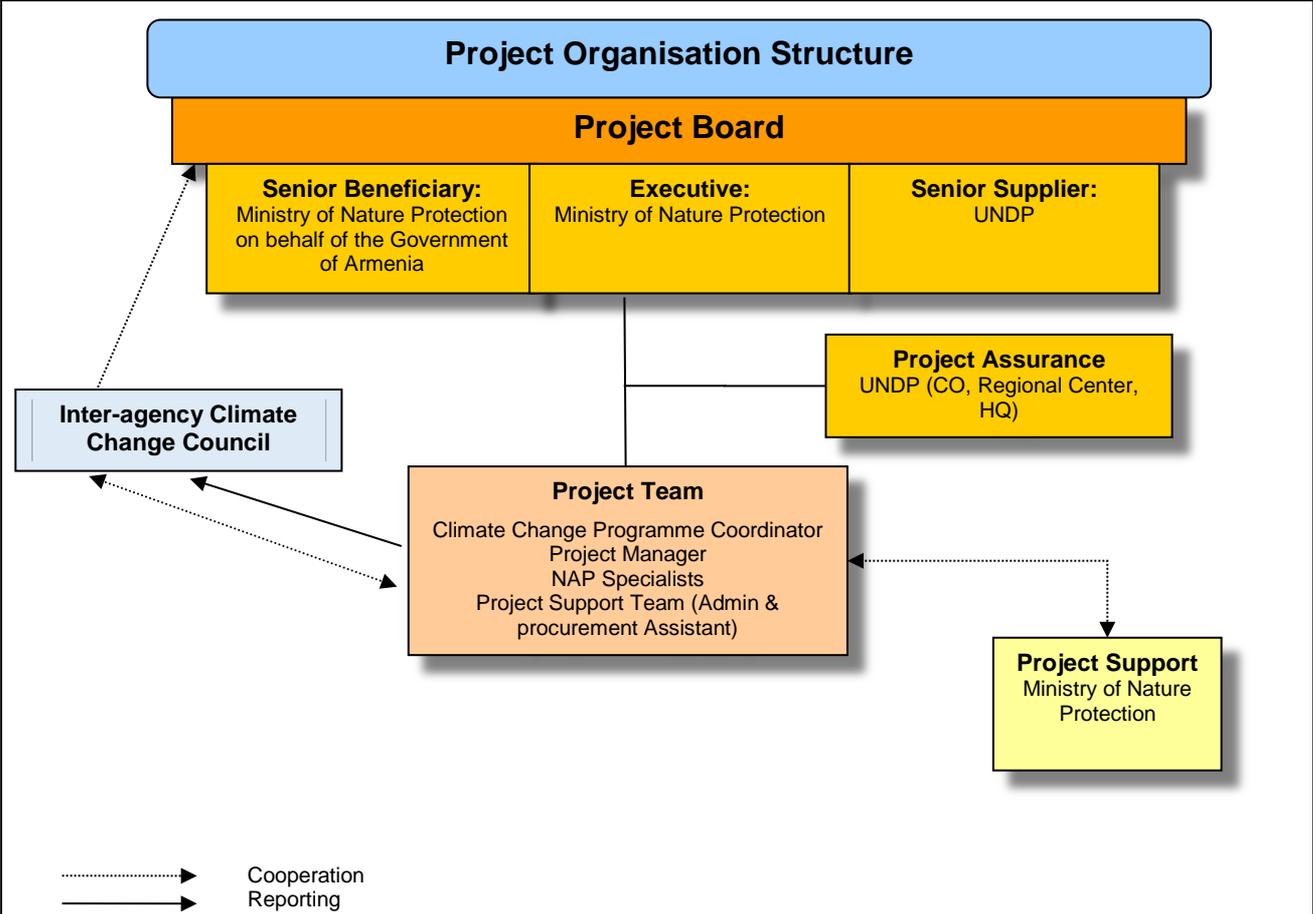
Task	Q 1	Q 2	Q 3	Q 4	Q 5	Q 6	Q 7	Q 8	Q 9	Q10	Q 11	Q 12	Q 13	Q 14	Q 15	Q 16
Output 1. Gaps assessed and national mandate, strategy and steering mechanism established																
1.1 Define the institutional arrangements for the NAP process																
Activity 1.1.1 Strengthen the institutional arrangements of the Inter-Agency Coordination Council	X	X	X	X	X	X	X	X	X							
Define the mission and mandate of the Inter-Agency Coordination Council on adaptation related activities as well as the roles and responsibilities of its stakeholders	X	X	X	X												
Define an action plan and timeframes of the NAP planning cycle and of the relevant monitoring and evaluation (M&E) systems					X	X	X	X	X							
Establish at least two permanent technical working groups to support Inter-Agency Coordination Council activities related to adaptation issues		X	X	X	X											

Activity 1.1.2 Develop a conceptual note for NAP implementation	X	X	X	X	X	X	X	X	X										
Activity 1.1.3 Strengthen technical leadership within key ministries	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
1.2 Identify and systemize available information on climate change impacts, vulnerability and adaptation, and assess gaps																			
Activity 1.2.1 Compile and synthesize available analyses of current and future climate, at sectorial, national and regional level	X	X	X	X	X	X	X	X	X										
Activity 1.2.2 Compile and synthesize available socio-economic information and scenarios at sectorial, national and regional level	X	X	X	X	X	X	X	X	X										
Activity 1.2.3 Compile and synthesize vulnerability assessments for all sectors and key industries	X	X	X	X	X	X	X	X	X										
Activity 1.2.4 In partnership with the State Hydro-meteorological and Monitoring Service (Hydromet), survey the state of climate information stations and locations and develop a work-plan and funding strategy	X	X	X	X	X	X	X	X	X										
Activity 1.2.5 Assess gaps with regard to information availability and sharing mechanisms, and conduct additional analysis	X																		
Activity 1.2.6 Prepare an inventory of plans to identify adaptation measures already implemented to identify lessons learned and identify gaps in order to scale-up	X	X																	
Activity 1.2.7 Compile existing sectorial strategies related to the priority sectors on adaptation and identify synergies between development and adaptation objectives	X	X	X																
2 Climate evidence and knowledge-base for the compilation of a NAP strengthened																			
2.1 Improve access to and use of climate data																			
Activity 2.1.1 Update, and where develop, hazard and risk maps hydro-meteorological phenomena, with priority given to those risks affecting water resource management, crop production, health, tourism and settlements	X	X	X	X	X	X													
Update the sectorial climate impact scenarios,					X	X	X	X	X	X	X	X							
Update vulnerability assessment					X	X	X	X	X	X	X	X							
Quantify the socioeconomic impacts									X	X	X	X							
Activity 2.1.2 Improve and facilitate communication between Hydromet and end users, such as farmers or extension officers, to ensure effective use of available climate information							X	X	X	X	X	X	X	X	X	X	X	X	X

Activity 2.1.3 Improve climate related data and information exchange and dissemination											X	X	X	X	X	X	X	X
2.2 Assess climate vulnerabilities and identify sector, subnational, national approaches to adaptation																		
Activity 2.2.1 Identify baseline of existing national and sectorial expertise on adaptation	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Based on the identified gaps and needs develop a plan to support training and capacity building for decision makers in priority sectors on climate adaptation					X	X	X											
Support the institutional arrangements for managing and monitoring mudflow clearance	X	X	X															
Develop a mechanism and process to ensure sustainability of climate adaptation related training programs						X	X	X	X	X	X	X	X	X	X	X	X	X
Activity 2.2.2 Strengthen capacities of the Ministry of Nature Protection and the Inter-Agency Coordination Council to monitor progress on adaptation through tools such as a web-based information dashboard							X	X	X	X	X	X	X	X	X	X		
Activity 2.2.3 Develop a training program focused on climate impact and climate vulnerability assessment methodologies and approaches			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Activity 2.2.4 Develop a training program focused on socio-economic assessment and valuation methodologies			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Activity 2.2.5 Support the Agriculture Extension Services to provide training on climate adaptation to end users and implement training over four years								X	X	X	X	X	X	X	X	X	X	X
Output 3. NAP implementation facilitated																		
3.1 Enhance national capacity for adaptation planning																		
Activity 3.1.1 Develop methodologies, screening tools and guidelines to integrate gender sensitive adaptation			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Develop guidelines for local (settlement and municipal) level risk assessment and adaptation planning						X	X	X	X	X	X	X	X	X	X	X	X	X
Develop guidelines for climate resilient urban development to support identification of urban adaptation options							X	X	X	X	X	X	X	X	X	X	X	X
Develop guidelines to ensure comprehensive and consistent local (municipal and settlement level) data collection for assessment of climate related risks and related damages			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Develop budget analysis tools for climate risks										X	X	X	X	X	X	X		

Develop tailored training and mentoring program for technical staff on application of tools and guidelines							X	X	X	X	X	X	X	X	X	X	X	X
Activity 3.1.2 Provide training and build awareness on climate-sensitive budgeting and potential mainstreaming approaches with key ministries											X	X	X	X	X	X	X	X
3.2 Develop a national adaptation implementation strategy																		
Activity 3.2.1 Develop adaptation components for the sectorial development plans, or their equivalent, for four of the six priority sectors		X	X	X	X	X	X	X	X	X								
Activity 3.2.2 Undertake screening and assessment of the interventions identified in the <i>Long-term (up to 2036) development directions of the RA Energy System Strategic Program</i> from an adaptation lens		X	X	X														
Activity 3.2.3 Test guidance on climate risk assessments of human settlements and critical infrastructure at the marz (region) level								X	X	X	X	X	X	X	X	X	X	X
Activity 3.2.4 Identify a pipeline of strategic adaptation interventions, in at least five priority sectors								X	X	X	X	X	X	X	X	X	X	X
Develop evidence-based criteria and a systemic process to prioritize adaptation targets and adaptation options							X	X	X	X	X	X	X	X	X	X	X	X
Identify a pipeline of strategic adaptation interventions,											X	X	X	X	X			
Prioritize adaptation options																X	X	
Identify a phased implementation strategy for the prioritized adaptation options															X	X	X	
Activity 3.2.5 Based on progress made under the first NAP cycle, develop an action plan for the second NAP cycle															X	X	X	
Activity 3.2.6 Identify, design and prepare at least 3 project concepts										X	X	X	X	X	X	X	X	X
3.3 Compile and communicate the National Adaptation Plan																		
Activity 3.3.1 Develop and implement a stakeholder outreach strategy and engagement plan	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Develop actionable engagement and gender action plans		X	X															
Define mandatory requirements for regular communication and awareness activities in all sectors		X	X	X	X													
Develop and deliver knowledge management and outreach products on gender sensitive climate adaptation			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Organize regular (e.g., annual) stakeholder (local, sectorial, national, private, public) thematic consultations and workshops to raise awareness		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Disseminate information on the NAP process and its progress			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Communicate NAP to national partners	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Organize regular training on an annual basis for media and journalists			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Activity 3.3.2 Identify gaps and develop a process to facilitate the communication and integration of adaptation into school curricula and awareness rising							X	X	X	X	X	X	X	X	X	X	X
Activity 3.3.3 Participate in international and regional learning and knowledge sharing events				X	X	X	X	X	X	X	X	X	X	X	X	X	X
Output 4. Mechanisms for Reporting, Monitoring and Review of NAPs and adaptation progress in place																	
4.1 Enhance capacity to monitor the NAP process and adaptation progress																	
Activity 4.1.1 Identify existing monitoring and evaluation activities and processes for entry points for adaptation				X	X	X	X										
Activity 4.1.2 Initiate development of a gender sensitive and transparent monitoring system in the priority sectors					X	X	X	X	X	X	X	X	X	X	X	X	X
Develop gender-responsive CCA indicators and criteria for review and monitoring					X	X	X	X	X	X	X	X	X	X	X	X	X
Support integration of the relevant CCA indicators and criteria into legislation, processes and regulations							X	X	X	X	X	X	X	X	X	X	X
Establish a reporting framework					X	X	X	X	X								
Formalize the process for updating the adaptation components				X	X	X	X	X									
Activity 4.1.3 Before the end of the project, review the NAP processes, activities and lessons learned in preparation of the potential up-scaling of the identified adaptation activities														X	X	X	
Output 5. Funding strategy for the NAP and CCA formulated																	
5.1 Establish a financing strategy for an iterative NAP process																	
Activity 5.1.1 Determine the long-term financial needs to support adaptation									X	X	X	X	X	X	X	X	X
Review current adaptation related public expenditures and determine the medium-term budget needs									X	X	X	X					
Review funding needs for the prioritized adaptation options											X	X	X	X			



The Climate Change Inter-Agency Coordinating Council, chaired by the Minister of Nature Protection, will act as the **Project Steering Committee** (PSC). The UNFCCC National Focal Point will provide strategic guidance and support on behalf of the Ministry of Nature Protection and ensure relevance and contribution of the project to the national capacity building work and implementation of national commitments under UNFCCC.

The **Project Board** will include representation by the Ministry of Nature Protection as the Executive with key national governmental and non-governmental agencies, appropriate local level representatives. The Project Board will provide overall guidance and quality assurance for the project, ensure adherence to the DIM guidelines and ensure compliance with GCF and UNDP policies and procedures. The Project Board is responsible for making, by consensus, management decisions, when guidance is required by the Project Coordinator. This includes recommendations for UNDP/Implementing Partner approval of project plans and revisions. In order to ensure UNDP’s ultimate accountability, Project Board decisions will be made in accordance with standards that shall ensure management for development results, best value money, fairness, integrity, transparency and effective international competition. In case a consensus cannot be reached within the Project Board, final decision shall rest with the UNDP. The Project Board will meet twice a year. Representatives of local governments and independent third parties, such as international or national NGOs, can attend the augmented Project Board meetings as observers. The Project Board will be balanced in terms of gender.

A **Project Team** will be established under the Climate Change Programme and will include the Project Manager, Climate Change Program Associate and two NAP Specialists, one for the coordination mechanism and one for thematic activities. Personnel from UNDPs Climate Change Programme, including an Expert Team Assistant, IT specialist and others, will provide administrative support. The mentioned personnel will provide direct administrative support to the project, but will not be part of the oversight function provided by UNDP. The UNDP Climate Change Program Coordinator will be responsible for the overall project coordination and ensure synergy with other climate change related projects. The Project Manager will run the project on a day-to-day basis within the constraints laid down by the Board. The Program Coordinator will be responsible for overall project coordination and implementation,

consolidation of work plans and project papers, preparation of annual (and/or quarterly, if required) progress reports, reporting to the project supervisory bodies. The Project Manager will also closely coordinate project activities with relevant government institutions and hold regular consultations with other project stakeholders and partners. The Project Manager function will end when the final project report and corresponding management response, and other documentation required by the GCF and UNDP, have been completed and submitted (including operational closure of the project). Under the direct supervision of the Project Manager, the Project Team will be responsible for administrative and financial issues, and will get support from the existing UNDP Operations Division. The Project Team will be recruited in accordance with UNDP's regulations to manage actual implementation of the project and will be based in Yerevan (The UNDP Climate Change Programme Unit is hosted in the premises of the Ministry of Nature Protection. It operates in the framework of the Letter of Intent signed between UNDP and Ministry of Nature Protection as the authorized agency for UNFCCC implementation).

Project Support will be provided by the Ministry of Nature Protection, which will provide office premises for the project team as well as telephone communication lines, and the required expertise and services of their corresponding staff. Steering Committee (Inter-agency Climate Change Council) member's time, support of their relevant subdivisions and staff is considered as in-kind contribution to the project implementation to be provided by the Government of Armenia. Additional agencies and institutions (such as the Ministry of Emergency Situations and its Hydromet Service, the Water Agency and the Ministry of Agriculture, Ministry of Territorial Development and Administration) will contribute personnel/staff and expertise, when required, and will participate in relevant expert, seminars, workshops or management meetings and/or providing meeting venues. The project will also benefit from the wide experience of the UNDP, particularly in Eastern Europe, the Caucasus and Central Asia countries, with its pools of experts (such as Climate Information and Science Experts, Climate Change/Environment Economists, Public Finance Specialists, Private Sector Experts, Climate Policy Specialists, etc.) that will provide technical assistance when requested.

Project Quality Assurance: UNDP provides a three – tier oversight and quality assurance role involving UNDP staff in Country Offices and at regional and headquarters levels. The quality assurance role supports the Project Board by carrying out objective and independent project oversight and monitoring functions. This role ensures appropriate project management milestones are managed and completed. Project Assurance must be independent of the Project Management function; the Project Board cannot delegate any of its quality assurance responsibilities to the Project Manager. The project assurance role is covered by the accredited entity fee provided by the GCF. As a Delivery Partner to the GCF, UNDP is required to deliver GCF-specific oversight and quality assurance services including: (i) Day-to-day oversight supervision, (ii) Oversight of project completion, (iii) Oversight of project reporting.

Other relevant information

This box provides an opportunity to include any important information you wish to bring to the attention of the GCF Secretariat, but did not have an opportunity to provide in the sections above.

The project will be implemented through broad-based participation in the coordination mechanism and with extensive consultations with at the national and local levels to avoid any social issues, per the engagement plan. Moreover, the project will build the capacities of decision-makers at different administrative levels to measure and evaluate the exposure of communities to climate-related risks and hazards for the integration of these risks into planning and budgeting.

The project does not include the construction of any infrastructure and will focus on soft interventions, including capacity building activities, sensitization interventions and policy development support, with minimal to no negative impact on the environment. These activities are expected to strengthen the understanding of the challenges and impacts climate change will have on the economy and the development of the country and therefore, incentivize the identification and development of adaptation initiatives, including projects, programs, policies and strategies. The need for extensive consultations and thorough studies and assessments will be highlighted and focused on avoiding any social and environmental negative impacts due to the inadequate and deficient selection of future adaptation interventions.

Gender inclusiveness is also at the center of the NAP process as it highlights the need for gender mainstreaming in climate change adaptation planning and budgeting and recognizes that adaptation cannot be successful without the involvement of all social groups, and in particular women. A focus on gender is an integral part of the communication/engagement plan. During the implementation process, gender concerns will be brought to the forefront by: (a) ensuring that relevant gender information, especially socio-economic information, is identified and collected; (b) the

sensitization of official beneficiaries on the crucial role women are playing in the society and in the adaptation process and how essential it is to involve them in every aspect of this process; (c) the engagement of women decision-makers in the trainings, meetings, workshops, etc.; (d) mainstreaming gender sensitivity in project approaches by ensuring women participate in a meaningful way during climate change impact inventories and the identification of adaptation options, including at the local level; and (e) the prioritization, evaluation and selection of gender-sensitive initiatives and incorporating gender analysis into the project concepts that will inform the project pipeline for further implementation.

The project will also develop training tools and undertake training on integrating gender through the use of gender disaggregated data and gender analysis tools in program formulation and monitoring, with the aim of enhancing the capacity of government official for planning, budgeting and implementation of adaptation with a gender sensitive approach.

This project will be directly aligned with the gender policy of the GCF that identifies six priority areas to implement its policy, namely: (a) Governance and institutional structure; (b) Operational guidelines; (c) Capacity building; (d) Outputs, outcomes, impacts and paradigm-shift objectives used for monitoring, reporting and evaluation; (e) Resource allocation and budgeting; and (f) Knowledge generation and communications. The project will address all six priorities through a range of adaptation topics, and place emphasis on addressing gender inequality along its implementation and operationalization.

SECTION 7: ARRANGEMENTS FOR MONITORING, REPORTING AND EVALUATION

Please provide project/programme specific institutional setting and implementation arrangements for monitoring and reporting and evaluation. Please indicate how the evaluations will be organized, including the timing.

The project results will be monitored and reported annually and evaluated periodically during project implementation to ensure the project effectively achieves these results.

Project-level monitoring and evaluation will be undertaken in compliance with UNDP requirements, as outlined in the [UNDP POPP](#) and [UNDP Evaluation Policy](#). While these UNDP requirements are not outlined in this document, the UNDP Country Office will work with the relevant project stakeholders to ensure UNDP M&E requirements are met in a timely fashion and to high standards of quality. In accordance with relevant GCF policies, additional mandatory GCF-specific M&E requirements will also be undertaken.

M&E oversight and monitoring responsibilities:

Project Manager: The Project Manager reports to the Project Board and is responsible for day-to-day project management and regular monitoring of project results and risks, including social and environmental risks. The Project Manager will ensure that all project personnel maintain a high level of transparency, responsibility and accountability in M&E and in reporting of project results. The Project Manager will inform the Project Board, the UNDP Country Office and the UNDP Regional Technical Advisor of any delays or difficulties encountered during implementation to ensure that appropriate support and corrective measures can be adopted.

The Project Manager will develop detailed annual work plans to support the efficient implementation of the project. The Project Manager will ensure that the standard UNDP and GCF M&E requirements are fulfilled to the highest quality.

Project Board: The Project Board will take corrective action as needed to ensure the project achieves the desired results. The Project Board will hold project reviews to assess the performance of the project and appraise the Annual Work Plan for the following year. In the project's final year, the Project Board will hold an end-of-project review to capture lessons learned and discuss opportunities for scaling up and to highlight project results and lessons learned with relevant audiences. This final review meeting will also discuss the findings outlined in the project terminal evaluation report and the management response.

UNDP Country Office: The UNDP Country Office will support the Project Manager. The UNDP Country Office will initiate and organize key M&E activities including the Annual Project Report, and the independent terminal evaluation.

The UNDP Country Office will also ensure that the standard UNDP and GCF M&E requirements are fulfilled to the highest quality.

The UNDP Country Office and the project team will support GCF staff (or their designate) during any missions undertaken in the country, and support any ad-hoc checks or ex post evaluations that may be required by the GCF.

The UNDP CO will retain all project records for this project for up to seven years after project financial closure in order to support any *ex-post* reviews and evaluations undertaken by the UNDP Independent Evaluation Office (IEO) and/or the GCF. The UNDP CO is responsible for complying with all UNDP project-level M&E requirements as outlined in the [UNDP POPP](#). This includes ensuring that the UNDP Quality Assurance Assessment is undertaken annually during implementation; the regular updating of the ATLAS risk log; and the updating of the UNDP gender marker on an annual basis based on gender mainstreaming progress reported in the Annual Project Report and the UNDP ROAR. Any quality concerns flagged during these M&E activities (e.g., Annual Project Report quality assessment ratings) must be addressed by the Project Manager.

The UNDP Regional Technical Advisors will provide additional M&E and implementation oversight, quality assurance and troubleshooting support.

Audit: The project will be audited according to UNDP Financial Regulations and Rules and applicable audit policies on DIM implemented projects.⁵ Additional audits may be undertaken at the request of the GCF.

Additional monitoring and reporting requirements:

Inception Workshop and Report: A project inception workshop will be held within two months after the project document has been signed by all relevant parties to, amongst others, re-orient project stakeholders to the project strategy, discuss the roles and responsibilities of the project team and conflict resolution mechanisms and review the results framework.

UNDP CO will prepare the inception workshop report no later than one month after the inception workshop. The inception workshop report will be cleared by the UNDP CO and the UNDP Regional Technical Adviser, and will be approved by the Project Board.

Annual Project Report: The Project Manager, the UNDP Country Office, and the UNDP Regional Technical Advisor will provide objective input to the annual project report covering the calendar year for each year of project implementation. The Project Manager will ensure that the indicators included in the project results framework are monitored annually in advance so that progress can be included in the report. Any environmental and social risks and related management plans will be monitored regularly, and progress will be included in the report.

The Annual Project Report will be shared with the Project Board. The UNDP Country Office will coordinate the input of other stakeholders to the report as appropriate. The quality rating of the previous year's report will be used to inform the preparation of the subsequent report.

Lessons learned and knowledge generation: Results from the project will be disseminated within and beyond the project intervention area through existing information sharing networks and forums. The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to the project. The project will identify, analyze and share lessons learned that might be beneficial to the design and implementation of similar projects and disseminate these lessons widely. There will be continuous information exchange between this project and other projects of similar focus in the same country, region and globally.

Terminal Evaluation (TE): An independent terminal evaluation (TE) will take place upon completion of all major project outputs and activities. The terminal evaluation process will begin at least three months before operational closure of the project allowing the evaluation mission to proceed while the project team is still in place, yet ensuring the project is close enough to completion for the evaluation team to reach conclusions on key aspects such as project sustainability.

The Project Manager will remain on contract until the TE report and management response have been finalized. The terms of reference, the evaluation process and the final TE report will follow the standard templates and guidance

⁵ Guidance available at: <https://info.undp.org/global/popp/frm/pages/financial-management-and-execution-modalities.aspx>

prepared by the UNDP IEO for GEF-financed projects available on the [UNDP Evaluation Resource Center](#). As noted in this guidance, the evaluation will be 'independent, impartial and rigorous.' The consultants that will be hired to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be evaluated. Additional quality assurance support is available from the UNDP. The final TE report will be cleared by the UNDP Country Office and the UNDP Regional Technical Adviser, and will be approved by the Project Board. The TE report will be publicly available in English on the UNDP ERC.

Final Report: The project's final Annual Project Report, along with the terminal evaluation (TE) report and corresponding management response, will serve as the final project report package. The final project report package shall be discussed with the Project Board during an end-of-project review meeting to discuss lesson learned and opportunities for scaling up.

Annex 1. Stocktaking Report and Supporting Information

ARMENIA NATIONAL ADAPTATION PLANNING PROCESS
*Stocktaking Report and Preliminary Roadmap / Concept for
Advancing the NAP Process in Armenia*

FINAL

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Abbreviations and Acronyms

CDM	Clean Development Mechanism
CoP	conference of parties
EbA	ecosystem-based adaptation
GCF	Green Climate Fund
GHG	greenhouse gas
LDC	least developed country
LEG	UNFCCCs LDC expert group
MES	Ministry of the Emergency Situations
MoNP	Ministry of Nature Protection
NAP	National adaptation plan
NDC	Nationally Determined Contribution
SSDA	Strategy on Sustainable Development of Agriculture
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change

UNITAR United Nations Institute for Training and Research

Climate change poses a serious challenge to social and economic development. Developing countries are particularly vulnerable because their economies are generally more dependent on climate-sensitive natural resources, and because they are less able to cope with the impacts of climate change. The effects of climate change may be especially critical to the achievement of development objectives related to the most vulnerable groups and communities. How development occurs has, in turn, implications for climate change and for the vulnerability of society to its impacts.

The Government of the Republic of Armenia (Armenia) requested support for the development of its national adaptation plan (NAP) process, and is one of the first countries requesting Green Climate Fund (GCF) readiness financing for this purpose. With support from the joint UNDP, a preliminary mission was undertaken December 7–9, 2016 to identify, in consultation with stakeholders, Armenia’s needs regarding the NAP process. The mission allowed for preliminary assessment of relevant initiatives on climate mainstreaming and of the institutional framework and capacities relevant to the NAP process through a stakeholder roundtable,⁶ qualitative interviews and an extensive desk review. The mission also built on Armenia’s participation in the *Eastern Europe, Caucasus and Central Asia Regional Workshop on the NAP Process*, held on 28–30 June, 2016 in Chisinau, Moldova by UNDP.

This report summarizes the results of the mission and proposes a roadmap for implementation of the NAP process in Armenia. The report will form the basis for the GCF funding request. Sections 2 and 3 provide an overview on NAP and on Armenia’s climate related vulnerabilities, respectively. Section 4 details the institutional framework and associated entry points, influences and challenges for adaptation action in Armenia. Section 5 outlines the foundation for the proposed NAP process with the expected outputs and outcomes for its first iteration.

1. Overview of the National Adaptation Plan (NAP) Process

The design, coordination and monitoring of national efforts in climate change adaptation, disaster management and risk reduction is an increasingly important part of national agendas. To effectively address the challenges that the impacts of climate change pose to long-term development objectives, the NAP process was established by the UNFCCC in 2010, as part of the Cancun Adaptation Framework. International support for the NAP process was strengthened in the 2011 Durban Agreement through to the 2016 Paris Agreement.

The NAP process is a flexible, iterative process that builds on each country’s existing adaptation activities to reduce vulnerability and to improve integration of climate change into national decision-making and sector-specific development planning to facilitate a paradigm shift towards climate resilient development. It is designed to support all developing countries in meeting their medium- and long-term adaptation needs.

The UNFCCC’s technical guidelines⁷ suggest four elements for the development of an evidence-based NAP process:

- **Element A** entails taking stock of needs, opportunities, entry points and key resources for adaptation in the country, including establishing an institutional home for the NAP process within government, and a legal or administrative mandate to legitimize the process
- **Element B** consists primarily of analytic activities to identify information gaps

⁶ The roundtable focused on introduction of the NAP concept and discussions on the type of approaches and capacities needed to implement a NAP in Armenia, as well as identification of institutions that could potentially influence successful implementation of the NAP process

⁷ UNFCCC 2012. National Adaptation Plans - Technical guidelines for the national adaptation plan process. LDC Expert Group. UNFCCC: Bonn, Germany

- **Element C** focuses on the use of the information to build needed capacities, establish roles and responsibilities for coordinated implementation, set priorities, sequence implementation activities and establish the required financing mechanisms
- **Element D** establishes the systems, effectiveness criteria and review/reporting timelines to track the progress of the NAP.

The overall aim is to establish an evidence-based framework that makes adaptation planning an inclusive, responsive and flexible process while also supporting priority adaptation actions in the most climate vulnerable areas. As such, the NAP framework is a practical approach to vertical (national-subnational) and horizontal (multi-sectorial) integration. It facilitates the integration of national, top-down assessments of climatic risks with bottom-up planning of adaptation needs, options and priorities.

Some of the key benefits expected from the development of the NAP include: the articulation of a coherent approach to comprehensive risk management; the improved integration between planned and autonomous adaptation; targeting of technical and financial resources to the most vulnerable areas and communities; bridging the gaps between vulnerability assessments, planning and implementation; and concurrency for internal and donor-supported development resourcing, monitoring and assistance.

2. Armenia's Vulnerability to Climate Change⁸

Armenia, a small, landlocked country in the Caucasus region, is one of the most vulnerable countries in the Europe and Central Asia region to climate change. The country, with an area of 29,743 km², has six basic climate types, from dry sub-tropical up to severe Alpine, and a wide range of temperature contrasts. About 90% of Armenia's territory is more than 1000 m above sea level and 40% is over 2000 m in elevation. In general, Armenia is distinguished by aridity – the average annual precipitation is 592 mm – and a significant part of the country, over the 60%, receives less than 600 mm p.a. One of its most characteristic features is the intensity and abundance of solar radiation: 1.46 cal/cm² and 2,500 hours p.a. Forests cover 11.9% of the country and agricultural land accounts for 69% of the total land area.

A third of the population is rural (36.7%), and 44.2% of the population is employed in the agricultural sector. It is estimated that 35% of Armenia's population (3.27 million) lives under the national poverty line.⁹ Poverty is exacerbated by an unemployment rate of 28.6%. When combined with Armenia history of droughts, soil erosion and natural disasters, rural low-income communities are particularly vulnerable to the impacts of climate change due to heightened water insecurity, increased health risks, reduced agricultural productivity and increased incidences of extreme events.¹⁰

Armenia relies heavily on agriculture, though its share of the Armenian economy has declined from 37% of GDP in 1994 to 22% in 2011.¹¹ Agricultural lands in Armenia include annual crops (11%), permanent crops (2%) and permanent meadows and pastures (44%). The main agricultural crops are cereals, potato, fruits, grape and vegetables, and livestock (cattle and sheep). More than half of agricultural lands are irrigated, and the Ararat Valley, the most productive area, is completely reliant on irrigation.¹² The agricultural sector also comprises 44.2% of the total labor force and is significant for rural livelihoods, food security, rural growth and

⁸ Unless noted otherwise, the information in Section 3 is based on the 2015 Third National Communication (Republic of Armenia Ministry of Nature Protection). Available at: unfccc.int/resource/docs/natc/armnc3.pdf

⁹ World Bank. 2012. The Republic of Armenia: Climate Change and Agriculture Country Note. Available at: www.worldbank.org/eca/climateandagriculture

¹⁰ Stanton E.A. et al. 2009. The Socio-Economic Impact of Climate Change in Armenia. Stockholm Environment Institute, Somerville, MA

¹¹ National Statistical Service of the Republic of Armenia. Available at: <http://www.armstat.am/en/>

¹² FAO: AquaStat. 2016. Available at: <http://www.fao.org/nr/water/aquastat/main/index.stm>

exports. One of the national development goals is to achieve 75–80% self-sufficiency in food production to ensure the populations' food security.

The agriculture sector currently faces serious environmental problems, including water losses due to irrigation inefficiencies, soil salinization, erosion, crop fertility loss due to improper irrigation, over-grazing, inappropriate cultivation practices, pollution from industrial and agricultural wastes and health threats, such as food contamination and pollutants. The relative shortage of land (currently at 0.14 ha of arable land per capita) combined with increasing land degradation (almost 80% of lands show notable desertification aspects) and the needs of the rural population make agriculture especially vulnerable to changes in conditions.

Climate projections for Armenia show that by 2100, temperatures will increase (by 4°C) and precipitation will decrease (by 9%). These changes will accelerate existing desertification processes, resulting in reduced ecosystem services and negative impacts on both public health and climate-dependent sectors of economy. Declining water resources will have direct and significant impacts on agriculture by reducing capacities for irrigation and deteriorating conditions for rain-fed agriculture, leading to significant drops in crop yields.

Climate change impacts are already evident in Armenia. Between 1935 and 2012, annual mean temperature increased by more than 1°C, while annual precipitation decreased by close to 10%. The decrease in precipitation has not been spatially uniform, with the northeastern and central regions becoming more arid, and the southern and northwestern areas, including the Lake Sevan basin, experiencing increased precipitation. This period has also seen a significant increase in the frequency and intensity of hazardous hydro-meteorological phenomena, such as extreme frost, extreme heat, heavy rainfall and hailstorms. The number of heat depression events, for example, has increased by 107%, which in turn increases the occurrence of hot and arid summers. In addition, the occurrence of the Iranian and Scandinavian anti-cyclone formations over Armenia has increased by 63% and 71%, respectively. The former results in an increased occurrence of heat waves, while latter increases late spring, early autumn and winter frosts and strong winter wind. The damage caused by these extreme events (i.e., hail, frost, strong winds, heavy rainfalls, floods, droughts, heat waves) is also contributing to the generation, and escalation, of hazardous incidences, such as landslides, avalanches, forest wildfires, rock falls and infectious disease outbreaks. These have, in some regions, caused a 10–15% increase in crop losses. Between 2009-2013, the damage from extreme weather events amounted to 177 million USD.

These climate trends place Armenia's water resources under severe threat. The spatial and seasonal distribution of water resources in Armenia is extremely uneven. In particular, water is scarce in the densely populated Hrazdan River watershed, located in central Armenia. The majority of rivers have, significant annual and seasonal flow fluctuations, and many have no permanent flows and are often dry in summer. River flow is expected to decrease by 6.7% (by 2030), 14.5% (by 2070), and 24.4% (by 2100) compared to the 1961–1990 baseline period. The volume of snow-based precipitation is also predicted to decline (by 7–11% by 2030, by 16–20% by 2070, and by 20–40% by 2100 when compared to the 1961–1990 baseline period) affecting over 50% of total river flow. The largest changes are expected in the high altitudes – above 1,700 meters – the main areas of river flow formation. Continuing changes in the composition of the Caucasus region snow cover is expected to further reduce long term river flow in Armenia. The forecasted climate change will result in significant changes to the water balance of Lake Sevan, the most important water ecosystem in Armenia, and one of the highest fresh-water lakes in the world.

By 2100, inflows to Sevan Lake are expected to decrease by about 190 million m³, as a result, lake water temperature is forecasted to increase by 3.6–4°C. Evaporation from Lake Sevan is expected to increase by 13–14%, and the natural water levels in Sevan Lake, which has already experienced a reduction of more than 42% in volume, will continue to drop. This will lead to shifts in the seasonal migration, spawning and feeding areas for cold-water fish, particularly for whitefish, the main fish species in the lake. It is expected, that over time, thermophilic carp species will replace the current population and the eutrophication process will accelerate.

In addition, ecosystem changes expected to occur with climatic shifts include the following: a 21% decrease in the area of the alpine zone and a vertical shift of 100–150 m; a 30% expansion of semi-desert and desert areas; a 4% expansion of the steppe belt and a concurrent vertical shift by 150–200 m; and a vertical movement of the forest belt by 100–200 m. It is expected that by 2030, approximately 17,500 ha of forest could be lost. Significant negative impact is expected on 238 plant species, and a positive impact on 140 species. Endemic species are particularly at risk. Climate change impacts on water resources will also influence the production of hydro-energy and the ability to cool the Metsamor nuclear power plant and thermal power plants.

Agriculture in Armenia is particularly at risk. By 2030, expected climate change impacts include higher temperature and reduced precipitation in areas requiring irrigation, increased evaporation from soil causing alkalization and secondary salinization, intensification of water-induced erosion, an increase in wind erosion caused by droughts and hot dry winds and an increase in activated landslide processes. Soil humidity is expected to decrease by 10–30%, and moisture availability for crops will decline by 7–13%. As a result, the projected water deficit (of the land) will increase by 25–30% and the additional demand of irrigation water will total to 202 million m³. In the Ararat Valley region, for example, by 2100, crop water requirements for winter wheat and vegetables is predicted to increase by 19–22% and by 19–23%, respectively, when compared to the period between 1967 and 1982. Irrigation water requirements for winter wheat and vegetables are also expected to increase, by up to 36% and 42%, respectively.¹³

At the same time, over 30,000 ha of the Ararat Valley – Armenia’s most productive farmland – is at risk from salinization associated with its irrigation.¹⁴ By 2030, the yields of main agricultural crops are predicted to decrease by 8–14% (9–13% for cereals, 7–14% for vegetables, 8–10% for potato and 5–8% for fruits). Yields from rain-fed farming and pasture areas are also forecasted to decline by 4–10%. This decline is expected to be especially steep (by 19–22%) in the most valuable sub-alpine and alpine pasture zones. Semi-desert and meadow-steppe areas are expected to increase by 17% while grazing lands with relatively low productivity will increase by 23%. Grassland yield could potentially decrease by 7–10% affecting fodder production. Reduced winter fodder may cause changes in the length of the grazing season resulting in increased pasture degradation. A significant increase in land degradation processes that will affect milk, meat and wool production is expected.

In addition to a general change in the climate, severe weather events and outbreaks of crop diseases and pests are predicted to strengthen. In recent years, extreme climate phenomena, such as hail, spring frosts and mudflows, have occurred with increasing frequency and duration. Between 2000 and 2005, climate related agricultural losses caused by drought, frost, and floods have cost Armenia 107 million USD. In September 2006 alone, droughts and forest fire cost 9 million USD in economic losses.¹⁵

Due to vulnerability of the water resources, impacts to aquaculture and pisciculture are also expected. The expected temperature increases will trigger eutrophication and/or stratification of the static waters (i.e., the ponds used for breeding of Sevan trout, rainbow trout, carps and sturgeon) and affect water quality. Reduced water flow is also expected to severely affect pond-based pisciculture and to a lesser degree, basin-based farms. The decrease in precipitation, however, will impact underground water resources on which the basin-based farms depend and restrict their scope.

Climate change is also expected to be a high risk factor for human health. Chronic air pollution, cardiovascular diseases combined with increased socio-economic chronic stress factors, such as availability of potable water

¹³ UNDP. 2011. Regional Climate Change Impacts Study for the South Caucasus Region. Tblisi, Georgia

¹⁴ World Bank. 2012. The Republic of Armenia: Climate Change and Agriculture Country Note. Available at: www.worldbank.org/eca/climateandagriculture

¹⁵ UNDP. 2011. Regional Climate Change Impacts Study for the South Caucasus Region. Tblisi, Georgia; and World Bank. 2012. The Republic of Armenia: Climate Change and Agriculture Country Note. Available at: www.worldbank.org/eca/climateandagriculture

and reduced food security, and an increase in the transmission vectors for communicable diseases are expected to reduce overall population health.

Armenia's topography, geological and hydrogeological conditions also generate a high degree of settlement and infrastructure vulnerability. A significant number of settlements, including major cities, roads, reservoirs and other infrastructure, are located in areas considered as high risk zones from seismic and various landslide (i.e., landslides, rock falls, mudflows and avalanches) events. Analysis of recent landslides shows an increase in climate driven events, such as mudflows. More than 4% of the country – in 2,500 discrete areas – has been identified as a high-risk area from climate driven events. 24% of settlements are located in these medium and high risk areas and have already experienced significant landslide related activity causing damage to hundreds of houses, communication routes and other utility infrastructures, including damage to 3% of the road network and 0.5% of the rail network. The increasing scope and intensity of extreme events has also resulted in an increased frequency of high-risk situations. In recent years, floods and flash floods have caused significant damage to almost all the *marz* in the country, and to the northern ones in particular. In 2010, floods caused 45 rock falls. Although more limited in the territory, avalanches also endanger a significant number of settlements and communication routes.

3. NAP-Relevant Setting, Processes and Actors

3.1. National Policy and Institutional Context for Addressing Climate Change

Armenia's key climate related documents are the 2015 Third National Communication to the UNFCCC (the Communication) and the 2015 Intended Nationally Determined Contribution (INDC).¹⁶ The Fourth National Communication on Climate Change will be developed by 2019.

The 2015 Communication is the key document that reflects the consequences of climate change scenarios. It also evaluates the vulnerabilities and priority areas for adaptation and outlines adaptation and mitigation options to respond to the projected climate related impacts. The report states that the agricultural sector is expected to bear the majority of climate change impacts due to soil degradation, desertification, higher temperatures and decreased water resources. The Communication looks at the influence of climate change on water resources, agriculture, infrastructure, natural ecosystems and human health. It contains detailed analysis of the possible reduction of anthropogenic GHG emissions in different economic sectors by introducing mitigation mechanisms and using the best available technologies.

The INDC articulated a climate adaptation foundation based on the application of “an ecosystem-based approach to mitigation and adaptation actions, giving preference to balanced and combined actions” while achieving economy-wide GHG neutrality by 2050. It explicitly refers to prioritizing adaptation measures in the Natural ecosystems, Health, Water resource management, Agriculture, Energy, Human settlements and infrastructures and Tourism sectors.

Both documents build on a series of national laws, strategies and programs that outline strategic directions for, mainly, national climate change mitigation action. Climate change adaptation as a theme has only recently (2015) been highlighted in the national policy documents and laws.

On the policy side, 2015 *Strategic Development Programme of the Republic of Armenia for 2012-2025* represents the country's overarching national socio-economic development strategy and establishes key national priorities (Growth of employment, Development of human capital, Improvement of social protection system

¹⁶ Republic of Armenia Ministry of Nature Protection. 2015. Third National Communication. Available at: unfccc.int/resource/docs/natc/armnc3.pdf; and Armenia 2015 INDC available at: <http://www4.unfccc.int/submissions/INDC/Published%20Documents/Armenia/1/INDC-Armenia.pdf>

and Institutional modernization of the public administration and governance), the main barriers and constraints the country faces, as well as the key reforms and policy instruments needed for achieving priority goals. The document highlights climate change related risks, specifically water resource availability and increased desertification and their socio-economic impact on the population, as well as the links between sustainable development and climate change policy, especially in terms of energy security, GHG mitigation and the promotion of energy efficiency, development of less-energy intensive industries, increased reforestation and forest protection.

On the legislative side, a series of laws and regulations have been enacted that, directly or indirectly, address climate change. The majority of legislation, however, is focused on sustainable farming practices, water resource management and renewable energy. These laws include the 1994 *Law on Atmospheric Air Protection*, the foundational law that addresses a variety of environmental and climate issues. It codifies definitions and terminology, establishes the authority of the government to regulate different aspects of the natural environment, stipulates the institutional relationships between governmental departments and lays the groundwork for environmental impact studies, the 1999 *Law on protecting selection achievements*, the 2001 *Land Code* that establishes the foundations, conditions, rights, responsibilities, as well as limits of ownership of land with attendant land-use rights to ensure the rational use and protection of land, its productivity and conservation; the 2005 *Forest Code* regulates relationships regarding ownership, management and disposal of forests to ensure sustainable use and conservation of forest resources, and strengthens the legal relationships that govern use of forest products; the 2001 *Law on eliminating the consequences of droughts*, the 2002 *Law on Integrated pest management* and the 2005 *Law on Seeds*. The 2002 *Water Code* aims for sustainable, integrated water resource management while the *Law on Water User Associations* assists operations and maintenance of irrigation systems.

On the policy side, these laws are supplemented by the 2002 *National Action Plan to Combat Desertification in Armenia*; the 2002 *Strategy on Specialty Protected Areas*; the 2004 *National Forest Policy and Strategy* and the 2005 *National Forest Programme* that target the rehabilitation of degraded forest ecosystems and sustainable use of the useful forested lands, including reduction of illegal logging; and the 2004 *Strategy on Sustainable Development of Agriculture (SSDA)* that aims to achieve food security and self-sufficiency. The SSDA is closely linked to the *Poverty Reduction Strategy Paper*. Certain parts of the SSDA focus on the environment, including limiting the use of fertilizers and other agro-chemicals, promoting soil conservation measures, improving water collection and irrigation methods and improving pasture management.¹⁷ The SSDA also aims to forecast and mitigate the effects of natural disasters and implement mitigation measures to climate change impacts, including an insurance system for agricultural production and a weather forecast warning system, but there is no institutional mechanisms or allocation of financial resources to fully integrate climate risk management instruments.¹⁸ The SSDA and the financing agreement between Armenia and the European Union were part of the 2005–2006 *Food Security Program of Armenia*.

Additional climate related policies include the 2005 *Food Security Policy* that encompasses important environmental issues such as climate change, desertification, biodiversity protection and biological security, and identifies the need to improve scientific and technical databases, assessment and monitoring of natural resources, regeneration of valuable and rare ecosystems and development of early warning systems to prevent crop damage. The 2007 *Strategy on National Security* that aims to ensure an environment suitable for activities of present and future generations, conservation and efficient use of natural resources, coordination of improved

¹⁷ World Bank. 2007. World Bank Review: Integrating Environment into Agriculture and Forestry [Armenia]

¹⁸ Ahouissoussi, N. et al. 2014. Reducing the Vulnerability of Armenia's Agricultural Systems to Climate Change: Impact assessment and adaptation options. World Bank: Washington, DC

environmental conditions, integration Armenian systems into international monitoring and prevention processes and systems to prevent natural and technological disasters, reliable forecasting and ensuring the safety, reliability and stability of town-planning systems.¹⁹

A UNEP-DTU Technology Needs Assessment (2015-2017) identified the need to prioritize climate change adaptation technologies for agriculture and water sectors, for identification of introduction and diffusion barriers and for development of technology action plans. Armenia has also developed guidelines for the development of watershed management plans that includes a requirement on taking into consideration the climate change factor

In 2008, Decree No. 248-N on the *“Regulations for organization of emergency assistance to the population during droughts and other natural disasters and technologic accidents”* and the *Program for protecting the population, settlements and infrastructures from the risks of inundations, mudflows and floods* were approved. They serve as foundation for disaster risk reduction. These were supplemented by Decree No. 281-N dated 7 March 2012, on the *“National strategy on disaster risk reduction of the Republic of Armenia and the action plan for of the national strategy on disaster risk reduction”*. The new 2016 DRR draft strategy, based on the 2015 Sendai Framework, includes climate change risks. In 2010, a multidisciplinary disaster risk reduction co-ordination mechanism was developed (i.e., the DRR National Platform). The DRR strategy and DRR National Platform provide a solid base for the cooperation and integration of risk management activities.

To diversify its energy production with renewable sources, the 2001 *Law on Energy*, the 2004 *Law on Energy Saving and Renewable Energy* established a list of policy directives for regulating the power industry, including greater efficiency and the development of renewable energy sources.

These laws are supplemented with six policy documents: The 2005 *Strategy for the Development of the Energy Sector in the Context of Economic Development* that addresses sustainable economic development and energy security through diversification of imported and domestic energy resources, utilization of potential renewable and non-traditional energy sources and the promotion of energy efficiency and energy conservation. The strategy describes projected indicators for energy consumption in different sectors of the economy, and plans to create power, gas and heat supply projects. The 2007 *National Programme for Energy Saving and Renewable Energy* provides assessment of the energy-saving potential in electric and thermal energy and gas-supply systems and in manufacturing, transport and residential and public buildings, while the 2010 *Action Plan for the Implementation of the National Programme for Energy Saving and Renewable Energy* contributes to the development of energy-saving policy and to finalizes the specific sectorial actions for its implementation. The 2011 *Renewable Energy Development Roadmap* describes the technical, economic and financial feasibility and benefits of the renewable energy potential, and evaluates its potential in transport and electrical- and thermal-energy generation. The long-term share of renewable energy generation in is estimated at 16.3%. The 2013 *Energy Security Concept* identifies the preconditions for sustainable energy system self-sufficiency and its export potential, for effective and efficient energy use and a concurrent reduction in GHG emissions, while the 2014 *Energy Security Action Plan* identifies specific actions under the Concept.

3.2. Existing Coordination Mechanisms of Potential Relevance to Adaptation and Key Actors

As determined by Government Decision No. 974 from 13 July, 2006, *“On Implementation of Projects in the Framework of Clean Development Mechanism (CDM) under the Kyoto Protocol”*, by Decree No. 1186-N from 16 October 2008, *“On approval of the procedures of the forecasting, warning and response on dangerous meteorological phenomena related to atmosphere excessive pollution, climate change and ozone layer condition”*

¹⁹ Ahouissoussi, N. et al. 2014. Reducing the Vulnerability of Armenia’s Agricultural Systems to Climate Change: Impact assessment and adaptation options. World Bank: Washington, DC

and by Decree No. 1594-N from 10 November 2011, *“On approval of the Action Plan of the Republic of Armenia Obligations Emanated from a Number of Republic of Armenia Environmental Conventions,”* the Ministry of Nature Protection (MoNP) is the authority in charge of coordinating actions for the implementation of the UNFCCC and CDM in Armenia. It is responsible for national coordination of the UNFCCC, for technical matters related to climate change (both mitigation and adaptation) and ecosystem preservation, and to a lesser extent serves as the main contact point for representatives from private sector bodies and civil society. Given the institutional environment, it is focused, at present, on climate change mitigation. The MoNP also coordinates the Environmental Impact Monitoring Center, the State Environmental Inspectorate, the Water Resources Management Agency and the Bio-resources Management Agency.

On 2 October 2012, the Armenian prime minister also adopted Decree No. 955-A on *“Approval of the composition and functions of the Inter-agency Coordinating Council for the implementation of requirements and provisions of the UNFCCC”* (Annex II) that establishes an Inter-Agency Coordinating Council and a supporting inter-agency working group. The Council is chaired by the Minister of Nature Protection and composed of representatives from 14 ministries, 2 state commissions, the Armenian State Statistical Service, the Public Services Regulatory Commission, the National Academy of Sciences and the UNFCCC national focal point. The Council’s tasks include those noted in Decision No. 1594 and the adoption of a national plan for adaptation. Currently, the Council meets regularly, but only once a year, and there appears to be no feedback mechanism between the sectors and the Council.

The Ministry of the Emergency Situations (MES), the designated authority for coordination of emergencies,²⁰ has three main priorities: to develop emergency risk assessment and preparedness plans; to implement emergency response and rehabilitation measures; and to coordinate the national risk mitigation policy. The MES also coordinates the State Hydro-meteorological and Monitoring Service (Hydromet), responsible for hydro-meteorological data collection and monitoring; the Armenian Rescue Service, responsible for rescue forces and their status; the National Service for Seismic Protection, responsible for seismic data collection and civil protection; the National Reserves Agency, responsible for defense regional and local sub-divisions; and the Centre for Technical Safety technical safety, responsible for technical and building codes such as fire security and seismic protection.

The MES is also responsible for implementing Decision No. 1304-N of 16 March, 2003, *“On approving the procedure of accessing information on possible emergency situations in the Republic of Armenia and warning of them”* that regulates advance warning on emergency situations; Decision No. 349-N of 18 March, 2004, *“On approving the specifications of highly urgent data and general-purpose information on meteorological events and processes”* that specifies the risk assessment for hazardous situations, Decision No. 1186 of 16 October, 2008 *“On approving a procedure on projection, warning and response to hazardous meteorological events associated with excessive atmosphere pollution, climate change and ozone layer status”* that defines the roles of the responsible agencies during emergency situations.

The most obvious strength regarding climate change related risks and adaptation in Armenia is the availability of information regarding current and on-going climate changes, vulnerabilities, impacts and adaptation activities. The most relevant weaknesses are:

- The lack of clear processes for updating risk and vulnerability information, and for the elaboration and prioritization of adaptation measures;
- The lack of awareness and capacities of sector ministries in terms of climate change and adaptation; and

²⁰ Law on defence of the population in situations of emergency from 2 December, 1998

- The lack of integration of climate change related risks and adaptation into planning processes and documents (both national and sector planning)

In addition, there appears to be a gap in the monitoring of ground water resources.

Coordination between MES, the Ministry of Urban Development, the Ministry of Territorial Administration and Development, responsible for spatial planning, and the State Committee for Water Management (under the Ministry of Energy Infrastructures and Natural Resources), responsible for clearing of mud flow canals, as well as other ministries and agencies involved in local level risk management, are not clearly articulated in the existing laws and appear to be a weakness in current DRR activities.

3.3. Existing Climate Change Adaptation and Mitigation Initiatives of Potential Relevance to NAP

Table 1 below provides an overview of climate related policies, initiatives, programs and projects of possible relevance to adaptation planning and the NAP process. Although adaptation activities are ongoing and international partners are actively involved with operational adaptation projects, there is no systematic inventory of adaptation projects, studies or actions. The UNDP has started collating this information but this process is in its early stages.

Table 1: Possible NAP related initiatives

Name	Basic information	Relevance to the NAP	Opportunities
Ongoing initiatives			
UNDP, ENPARD Technical Assistance: Producer Group and Value Chain Development	Ensuring an efficient and sustainable agriculture contributing to better conditions in rural areas by strengthening and newly establishing producer groups, by engaging producer groups effectively in value addition and by strengthening value chains that provide improved access to affordable, better quality food	Supports the development of local and community based adaptive capacity in agriculture	The project presents potential entry points, as well as, scaling up opportunities under the NAP process
UNDP, Mainstreaming Sustainable Land and Forest Management in Mountain Landscapes of North-Eastern Armenia	Adopting sustainable land and forest management in the Northeastern Armenia to secure continued flow of multiple ecosystem services (such as water provision, land slide control and carbon storage /sequestration) and to ensure conservation of critical wildlife habitats	Supports the development of local and community based adaptive capacity to address natural resource management	
Clima East-EU UNDP Pilot Project, 2013-2017	Demonstrates sustainable natural resource management model in degraded		

Name	Basic information	Relevance to the NAP	Opportunities
	mountainous pastures and forests of Armenia to increase ecosystems capacity for carbon sequestration while retaining biodiversity and economic values		
Clima East/EU regional project	Training on AquaCrop model for the purpose of assessment of climate change vulnerability and support for accreditation of the Environmental Projects Implementation Unit as national implementing agency of the Adaptation Fund	Provides supports for the development of local and community based adaptive capacity Provides institutional support to strengthen financing capacity for NAP	Could, with additional institutional capacity, provide a driver for implementation of adaptation projects and the NAP process
UNDP-GEF / Forest Adaptation Project, 2009-2016	Enhance national capacities to adapt to anticipated climate change impacts in the affected south-eastern forests of Armenia Manual for development of community development plans (2016), including climate change risk management elements	Supports the development of local and community based adaptive capacity to address natural resource management	The project presents potential entry points, as well as, scaling up opportunities under the NAP process
UNDP-BCPR / Mitigation of Climate Change Risks of Rural Communities Through Improved Local Development Planning 2013-2016	(1) CCA pilot project, (2) agricultural insurance, (3) support to meteorological service, (4) incorporation of CC and DRR in 4-year community development plans development manual	Supports the development of local and community based adaptive capacity to address climate risks	
KfW / Management of water resources of the border Akhurian River	Including management of water resources of the border Akhurian River, energy-efficient renovation of schools, and enhancing efficient use of energy by small and medium-sized businesses	Supports the development of local and community based adaptive capacity to address climate risks	
GIZ / Integrated Biodiversity Management	Harmonization of interests of the different sectors (forestry, livestock and arable farming, nature conservation and tourism) to improve the management of biodiversity and ecosystem services	Improves the institutional framework and capacity for natural resource management	Once completed, additional natural resource based adaptation options may be developed

Name	Basic information	Relevance to the NAP	Opportunities
French Development Agency / Vedi Reservoir Construction	To alleviate water scarcity in Ararat Valley	Improves water storage capacity	Once completed, additional water based technologies and adaption programs may be developed
FAO / Alternative Utilization of Water Resources in Armenia in the Field of Fish Production	To reduce overexploitation of underground water resources due to the rapid development of fish production while the quantity and quality of fish produced previously is maintained	Improves water resource management and pisciculture practices	The project presents some potential entry points, as well as, scaling up opportunities under the NAP process
EU / Organic Agriculture Support Initiative (OASI)	Promotes organic extension services, developing curricula and a state-of-the-art textbook; providing small-grants scheme for farmers seeking to start, diversify or expand organic production; providing bigger grants to already established organic farmers, raising awareness about organic production and products and increasing market access for producers. Focus on involving women farmers, farmers' groups, co-operatives and processors, youth and other vulnerable groups	Supports the development of local and community based adaptive and implementation capacity	
USAID / "Clean Water and Energy" Project, 2011-2015, ASPIRED Project, 2015-2019	Assessment of water reserves of Southern river basin (CC factor has been analyzed and taken into consideration) in order to reduce rate of groundwater extraction in Armenia's Ararat Valley through the use of science, technology, innovation and partnerships approaches	Supports the development of local and community based adaptive capacity to address natural resource management	
EU / Water Initiative +	To improve the system of management of water resources in Armenia and their records as well as decentralizing the system of their distribution	Supports the development of data management	
ADB / Second Water Supply and Sanitation Sector Project	Focus on Yerevan and the Ararat, to reduce vulnerability due to over abstraction of ground water, drought,	Supports the development of adaptive capacity for improved water resource management	The project presents potential entry points, as well as, scaling up opportunities under the NAP process

Name	Basic information	Relevance to the NAP	Opportunities
	climate change, and absence of inter-sectorial river basin management plans		
World Bank / Second Community Agriculture Resource Management and Competitiveness Project	Improvement of productivity and sustainability of pasture and livestock systems in targeted communities and increase the marketed production from selected livestock and high value agri-food value chains	Supports the development of local and community based adaptive capacity in agricultural production systems	
World Bank / Irrigation System Enhancement Project	To reduce the amount of energy used and to improve the irrigation conveyance efficiency in targeted irrigation schemes; and to improve the availability and reliability of important sector data and information for decision-makers and other stakeholders	Supports improved water resource management and improved data collection may be linked to climate related information to improve trend analysis	Some aspects of the project present potential entry points, as well as, scaling up opportunities under the NAP process
World Bank / Eurasian Development Bank Mastara Reservoir Preparation	To improve readiness of the Eurasian Fund for Stabilization and Development-financed Mastara Reservoir Project by supporting the relevant project preparation studies, and to enhance capacity of the Water Sector Projects Implementation Unit to prepare and implement projects	The capacity building aspects of the project support improved water resource management	
World Bank / Disease Prevention and Control Project	To improve maternal and Child Health services and the prevention, early detection, and management of selected Non-Communicable Diseases (NCD) at the Primary Health Care level; and to improve the efficiency and quality of selected hospitals in Armenia	The capacity building aspects of the project support improved health services provision	May serve as a basis for development of additional adaptation options
World Bank/ Armenia National Disaster Risk Management Program	To increase the Government's disaster risk management (DRM) capacity by: (1) improving disaster risk information; (2) enhancing disaster risk reduction; (3) strengthening disaster preparedness; and (4) improving understanding of	The capacity building aspects support improved adaptation to seismic risk in Armenian schools and enhanced awareness of the need integrate DRM in urban plans	

Name	Basic information	Relevance to the NAP	Opportunities
	fiscal disaster risks and risk financing options	Supports improved understanding of vulnerability and risks for key public infrastructure assets (through Probabilistic Seismic Hazard Assessment Mapping)	
WWF-Armenia / Establishment of a National Park in Tatev Area, 2015-2018	As part of forest transformation and conservation measures in the Tavush and Lori regions, to support the adaptation of ecosystems to climate change	Supports improved biodiversity conservation. The new management plan will address climate change considerations	The results of pilot areas and monitoring activities may provide support for the up scaling of current activities and the development of additional forest ecosystem adaptation measures
OXYGen Foundation	To support community resilience and community risk assessments in Armenia and Georgia	Establishment and facilitation of the Tavush Resilience Forum Provides a platform for leading national stakeholders to collaborate and support regional coordination, advocacy and awareness initiatives Provides capacity building for regional and local authorities	May serve as a basis for supporting the coordination mechanism and for increasing awareness and understanding of climate adaptation

3.4. Capacity Development Needs Assessment

A rapid capacity assessment was undertaken during December 7–9, 2016. The approach to identifying the required capacity needs is based on UNDPs and UNITARs capacity development frameworks.²¹ These frameworks identify three skill and capacity levels – the individual, the organization and the enabling environment – for technical and functional capacities. Functional capacities are those that relate to core organizational functions necessary to implement activities, while technical capacities are sector (or area) specific.

The assessment, based on review of strategy documents, existing reports, individual interviews, as well as a basic questionnaire distributed during the cross-sectorial roundtable (December 8, 2016), is structured according to the three intervention levels and addresses both technical skills and functional skills (see Table 2).

Table 2: Identified capacity development gaps and needs

Sector Specific (Technical)	Core Organizational Functions
Enabling Environment	

²¹ UNDP. 2008. UNDP Capacity Assessment Methodology User's Guide. UNDP: NY, USA; UNDP. 2010. Capacity Development - Measuring Capacity. UNDP: NY, USA; and Mackay A. *et al.* 2015. Skills Assessment for National Adaptation Planning – How Countries Can Identify the Gap. UNITAR: Geneva, Switzerland

Sector Specific (Technical)	Core Organizational Functions
<ul style="list-style-type: none"> • There is a need to strengthen climate related monitoring systems for sectorial implementation activities • Relatively widespread awareness of climate change mitigation fundamentals for technical staff and policy makers (basic science, policy and planning) but almost no awareness of adaption fundamentals • Lack of awareness about climate change adaptation and linkages with existing programs and activities 	<ul style="list-style-type: none"> • Level of understanding of sectorial based climate impact and vulnerability
Organizational	
<ul style="list-style-type: none"> • Limited understanding of current capacities and climate change adaptation needs at local level and in marz • Insufficient data about sector specific climate impacts and their economic implications as well as apparent deficit in climate related economic analysis, including damage and loss analysis, especially at the local level • There may be a deficit in the required personnel (numbers and expertise) to meet adaptation related functions • There is no climate related focal person (or department) in each sector • There is a need for ToT programs in climate change fundamentals for national training institutions and selected sector staff to improve sectorial capacities • Language barriers, such as lack of English speakers, prevent staff access to relatively low-cost knowledge and training tools and limits the pool of qualified staff available to attend international training 	<ul style="list-style-type: none"> • The inter-ministerial platform for discussion of adaptation issues is not fully utilized • Climate related participatory decision-making and stakeholder input processes for managers and decision makers are unclear • There is no platform for information sharing regarding climate change and adaptation in Armenia • Limited inventories of existing climate and hazard related data and information, and an absence of proactive mitigation measures planning system, combined with fragmented and outdated vulnerability and risk assessments. • Limited cross-sectorial collaboration on climate adaptation programming at national and sub-national levels • Strong need to harmonize techniques for climate related data collection, analysis and documentation and to develop advanced techniques in data collection, analysis, documentation and utilization processes • Limited collaboration mechanisms within and between sectors at all levels • There is a need for university level climate related national curriculum development to increase and sustain professional inputs across all sectors • Gaps in the availability and communication of specialized hydro-meteorological risk information, especially at the local level
Individual	
<ul style="list-style-type: none"> • Language barriers, specifically lack of English speakers, prevent staff access to relatively low-cost knowledge and training; further limiting the pool of qualified staff available to attend international training 	<ul style="list-style-type: none"> • Deficit in the required trained personnel (numbers and expertise) to meet adaptation related functions and a deficit in use of techniques to assess climate related challenges

4. Proposed Concept and Roadmap for NAP Process

The purpose of the NAP roadmap is to articulate country-based consensus on the approach for the design of the NAP process. Under the UNFCCC, the NAP roadmap is intended as “a work plan, or list of steps, to be

undertaken towards the design of the NAP, which includes the decision-making framework and the various supporting action plans.”

The roadmap identifies the overall approach to implementing the NAP process and the main work-streams (components) and activities for the 2018–2021 iteration of the NAP (i.e., **NAP I**).

Based on stakeholder input, the envisioned approach to Armenia’s NAP will be driven by developing a conceptual note (approach) to implementing the national direction for adaptation (articulated in the 2015 INDC as “apply an ecosystem-based approach to mitigation and adaptation actions, giving preference to balanced and combined actions”) in the form of either guidelines/technical regulations or sub-legislation. Following articulation of the conceptual approach, the individual sectors are then expected to contribute to the mainstreaming of climate change adaptation in their respective strategies, plans and policies. This includes priority areas for adaptation and concrete steps for mainstreaming. It is expected that adaptation will be simultaneously considered at the national level and in sector-specific planning.

Implementation of this approach in **NAP I** will occur through four parallel work-streams (components). The first three components focus on establishing the foundations for a strong and effective NAP process and adaptation planning in general, and the fourth focuses on support for integrating lessons learnt into adaptation planning.

- **Work-stream 1 – Planning, establishing and steering the NAP process.** This component is focused on building capacity for coordination and policy development, including the establishment of a legal mandate and of a monitoring/reporting mechanism.
- **Work-stream 2 – Strengthening institutional and technical capacities.** These capacities will support development of a comprehensive and iterative NAP process and thus assist the implementation of the adaptation strategies and actions plans.
- **Work-stream 3 – Facilitate NAP implementation in priority sectors** with adaptation interventions at the national and local level to catalyze innovation. The interventions are intended for concurrent deployment with the other work-streams in order to help inform long-term planning processes.

Each of the components is, in turn, divided into a series of strategic interventions and steps designed to deliver a set of specific outputs in **NAP I** that will establish a foundation to advance adaptation planning in Armenia; support the development of an iterative NAP process; and serve as the basis for further refinement and national discussion (see Table 3).

Table 3: Expected outcomes and outputs for the first NAP cycle

Activities	Timeframe	Reason for Baseline Status
1. Assess gaps and establish national mandate, strategy and steering mechanism		
1.1 Launch the NAP process		
Activity 1.1.1 Strengthen the institutional arrangements of the Inter-Agency Coordination Council on UNFCCC Implementation to enable it to serve as the coordination mechanism for adaptation through the following inputs: <ul style="list-style-type: none"> ○ Define the mission and mandate of the Inter-Agency Coordination Council on adaptation related 	Year 1–2	<ul style="list-style-type: none"> • The current coordination mechanism (the Inter-Agency Coordination Council) exists only “on paper” and its principals are unaware of their current roles and responsibilities. The mandate of

Activities	Timeframe	Reason for Baseline Status
<p>activities as well as the roles and responsibilities of its stakeholders</p> <ul style="list-style-type: none"> ○ Define an action plan for its activities and timeframes of the NAP planning cycle and relevant monitoring and evaluation systems ○ Establish at least two permanent technical working groups to support Inter-Agency Coordination Council activities related to adaptation issues 		<p>the Council needs to be expanded to include adaptation with, improved oversight and reporting responsibilities</p> <ul style="list-style-type: none"> • To ensure that adaptation is accorded governmental priority, development of a conceptual note is required. • Technical and managerial capacity related to climate adaptation needs to be strengthened in key ministries to ensure that the envisioned processes are enabled and that long-term national support develops
<p>Activity 1.1.2 Develop a conceptual note for NAP implementation (per Government Decision 49-8 of 2016) within the overall approach on adaptation recommended in the NDC and submit for the approval of the Government</p>	Year 1–2	
<p>Activity 1.1.3 Strengthen technical leadership within key ministries by targeting national and sub-national decision-makers with awareness raising and technical capacity building to improve support for climate action and participation in the Inter-Agency Coordination Council in alignment with the Sendai Action Plan</p>	Starting in Year 1	
<p>1.2 Identify and systemize available information on climate change impacts, vulnerability and adaptation, and assess gaps</p>		
<p>Activity 1.2.1 Compile and synthesize available analyses of current and future climate, at sectorial, national and regional level. Assess gaps with regards to information availability and sharing mechanisms, and conduct additional analysis, if required</p>	Year 1–2	
<p>Activity 1.2.2 Compile and synthesize available socio-economic information and scenarios at sectorial, national and regional level. Assess gaps with regards to information availability, existing processes to integrate climate and socio-economic modeling for undertaking combined socio-economic and climate scenario development</p>	Year 1–2	<p>0</p> <p>The piece-meal approach to adaptation that currently exists has created a multitude of localized analysis and data sets. A detailed inventory is needed to understand where the gaps are, and to start addressing them. These gaps are compounded by insufficient data collection capacity at Hydromet which create gaps in the records, affecting climate projections</p>
<p>Activity 1.2.3 Compile and synthesize vulnerability assessments for all sectors and key industries; undertake ranking of climate change risks and vulnerabilities; and update national climate impact scenarios and corresponding risks</p>	Year 1–2	
<p>Activity 1.2.4 In partnership with the State Hydro-meteorological and Monitoring Service (Hydromet), survey the state of climate information stations and locations (across all sectors and institutions) and develop a work-plan and funding strategy to update or upgrade the network to ensure comprehensive and representative coverage</p>	Year 1–2	
<p>1.3 Identify and address capacity gaps and weaknesses to ensure local ownership of the NAP process</p>		

Activities	Timeframe	Reason for Baseline Status	
<p>Activity 1.3.1 Review and assess existing national and sectorial expertise on vulnerability assessment and adaptation planning, and based on identified gaps and needs develop a plan to support training and capacity building on climate adaptation issues and awareness rising</p>	Starting in Year 1	0	As the country focus has been on climate mitigation, there is an urgent need to develop technical capacity across a variety of issues related to adaptation to enable independent action at the national, territorial and sector level. This also includes improving access to training opportunities and increasing the effectiveness of existing processes
<p>Activity 1.3.2 Develop an instructor-led training program focused on climate impact and climate vulnerability assessment methodologies and approaches (for Hydromet and sectorial technical planners, as well as sectorial and university researchers) and implement training over four years. Where possible, the trainings will be arranged in collaboration with national competent institutions and/or universities. This will enable sectorial and institutional entities to iteratively provide training and develop capacity on climate related impact and vulnerability assessments beyond the life of the project</p>	Starting in Year 1		
<p>Activity 1.3.3 Develop an instructor-led training program focused on socio-economic assessment and valuation methodologies (for sectorial technical planners, as well as sectorial and university researchers) and implement training over four years. Where possible, the trainings will be arranged in collaboration with national competent institutions and/or universities. This will enable sectorial and institutional entities to iteratively provide training and develop capacity on socio-economic assessments beyond the life of the project</p>	Starting in Year 1		
<p>Activity 1.3.4 Develop a mechanism and process to ensure sustainability of climate adaptation related training programs by designing and updating a centralized database of training materials accessible to all ministries and housed in the Ministry of Nature Protection and the Public Administration Academy or Crisis Management State Academy of the Ministry of Emergency Situations</p>	Starting in Year 2		
<p>Activity 1.3.5 Assess training needs for decision makers in priority sectors, such as technical staff at the agriculture extension services, farmer unions and water user associations on the use of available climate information and develop sustainable training programs to ensure increased use of available climate data</p>	Year 2		
<p>Activity 1.3.6 Improve climate related data and information exchange and dissemination between producers and users by establishing a practical and affordable process to use Hydromet data, and train users on use of the available information</p>	Starting in Year 3		
<p>1.4 Comprehensively and iteratively assess sectorial and local development needs in the context of climate vulnerabilities</p>			

Activities	Timeframe	Reason for Baseline Status	
Activity 1.4.1 Compile existing sectorial strategies related to the priority sectors and identify synergies between development and adaptation objectives, policies, plans and programs, including synergies with wider strategic frameworks, such as Agenda 2030/SDGs and the Sendai Framework, and assess gaps and opportunities	Year 1	0	<ul style="list-style-type: none"> • Due the <i>ad hoc</i> nature of current adaptation actions, there is limited information on what measures have been tested and which ones are successful. • There is a need to ensure that the existing multi-sectorial data coordination system can be improved on to support better information exchange and improved use of climate data • Local authorities need guidelines on the climate data they are supposed to collect to improve both risk and vulnerability assessment and the ability to address localized climate driven disasters. At present, they have no guidance and data is not being collected
Activity 1.4.2 Review the suitability of the existing multi-sectorial data coordination system for climate data exchange and management and formulate a data-collection and data sharing process strategy to strengthen information collection, processing, analysis and dissemination mechanisms	Starting in Year 2		
Activity 1.4.3 Develop and incorporate guidelines to ensure comprehensive and consistent local (municipal and settlement level) data collection for assessment of climate related risks and related damages	Year 2		
2. Strengthen the climate evidence- and knowledge-base for the compilation of a NAP			
2.1 Analyze and update current climate and future climate change, and socio-economic scenarios			
Activity 2.1.1 Update, and where develop, hazard and risk maps hydro-meteorological phenomena, with priority given to those risks affecting water resource management, crop production, health, tourism and settlements	Year 1–2	0	Armenia's hazard and risk maps need to be updated, and information gaps in other analyses closed, so that climate risks and their socio-economic impacts can be better identified and addressed
Activity 2.1.2 Undertake a comprehensive vulnerability assessment related to priority sectors and their key industries and identify the key climate risks and socio-economic impacts. Priority will be given to those risks affecting water resource management, crop production, health, tourism and settlements	Starting in Year 2		
Activity 2.1.3 Update the sectorial climate impact scenarios, risks and impacts and, where possible, quantify the socioeconomic impact of climate change on different sectors	Starting in Year 2		
2.2 Assess climate vulnerabilities and identify sector, subnational, national approaches to adaptation			
Activity 2.2.1 Develop adaptation components for the sectorial development plans, or their equivalent, for four of the six priority sectors for adaptation identified in the INDC (i.e., water resource management, agriculture (focus on crop production) and forestry, health, tourism and settlements)) that will include sectorial capacity development plans and development of prioritized adaptation options (along with their related cost-benefit analysis and financial requirements)	Starting in Year 1	0	<ul style="list-style-type: none"> • None of the sectors have adaptation plans or components in their sectorial development plans • At the territorial level (i.e., <i>marz</i> level), the local authorities have not yet assessed climate risks, which is be a preliminary step to

Activities	Timeframe	Reason for Baseline Status	
Activity 2.2.2 Undertake screening and assessment of the interventions identified in the <i>Long-term (up to 2036) development directions of the RA Energy System Strategic Program</i> from an adaptation lens	Starting in Year 1		developing territorial adaptation approaches
Activity 2.2.3 Undertake risk assessment at the marz (region) level for 1 marz to pilot sub-national assessment of human settlements and critical infrastructure	Starting in Year 2		
2.3 Review and appraise adaptation options			
Activity 2.3.1 Prepare an inventory of plans for sectorial and territorial development, international projects, activities of NGOs, multi-lateral agencies and donors to identify adaptation measures already implemented	Year 1		
Activity 2.3.2 Analyze notable adaptation interventions in the inventory to identify lessons learned and identify gaps in order to scale-up successful experiences	Year 1	0	National and sector level adaptation projects, if occurring, have been <i>ad hoc</i> . This activity will help inventory on-going activities and support the development of a pipeline of adaptation projects
Activity 2.3.3 Identify a pipeline of strategic adaptation interventions, in at least five priority sectors (i.e., water resource management, agriculture (focus on crop production), health, tourism and settlements), for medium- to long-term implementation	Starting in Year 2		
2.4 Formulate and communicate National Adaptation Plan			
Activity 2.4.1 Develop and implement a stakeholder outreach strategy and engagement plan on the NAP to support medium- and long-term adaptation planning, sensitize policy makers and the general public, including the private sector, on the importance of adaptation to ensure that advocacy of climate adaptation becomes a national priority. The strategy will define mandatory requirements for regular communication and awareness activities in all sectors as part of their annual planning framework. The strategy will also be supported by actionable engagement and gender action plans	Starting in Year 1		
Activity 2.4.2 Communicate NAP to national partners for discussion, approval and the improvement of feedback mechanisms	Starting in Year 1	0	<ul style="list-style-type: none"> As the country focus has been on climate mitigation, adaptation is an “unknown quantity” and there is a high level of outreach intensity that is needed
Activity 2.4.3 Organize regular training on an annual basis for media and journalists on key aspects of climate change vulnerability and adaptation opportunities, and develop a process for recognizing communication distinction	Starting in Year 1		<ul style="list-style-type: none"> Communication between Hydromet and the end users of climate data is problematic, and both the communication process and information formats need to be improved
Activity 2.4.4 Improve and facilitate communication between Hydromet and end users, such as farmers or extension officers, to ensure effective use of available climate information	Starting in Year 2		
2.5 Integrate climate change adaptation into national, subnational and sectorial planning and budgeting			

Activities	Timeframe	Reason for Baseline Status	
Activity 2.5.1 Develop methodologies, screening tools and guidelines to integrate gender sensitive adaptation in national and sectorial plans and budgets	Starting in Year 2	0	As the country focus has been on climate mitigation, there is a need to develop consistent quality in technical methodologies and technical capacity to provide sufficient confidence in skill levels and enable the integration of climate adaptation in day-to-day activities
Activity 2.5.2 Develop tailored training and mentoring program for technical staff on application of tools and guidelines in their day-to-day activities	Starting in Year 2		
3. Facilitate NAP implementation			
3.1 Prioritize climate change adaptation in national planning and budgeting			
Activity 3.1.1 Develop evidence-based criteria and a systemic process to prioritize adaptation targets and adaptation options for supporting improved medium and long term adaptation planning and budgeting	Starting in Year 2	0	The absence of systematic approaches to climate adaptation has led to small-scale and <i>ad hoc</i> experimentation in very limited situations. To support the development of a prioritized pipeline of adaptation projects that reflect national objectives, a consistent methodological approach is needed, including the ability to oversee and monitor progress
Activity 3.1.2 Strengthen capacities of the Ministry of Nature Protection and the Inter-Agency Coordination Council to monitor progress on adaptation through tools such as a web-based information dashboard	Starting in Year 2		
Activity 3.1.3 Train and build awareness on usefulness of climate-sensitive budgeting and potential mainstreaming approaches with the key ministries	Starting in Year 3		
3.2 Develop a national adaptation implementation strategy			
Activity 3.2.1 Identify an implementation strategy based on the adaptation options (from Activity 3.1) and prioritize them based on their contributions to the strategic country development priorities and their related cost-benefit and financial requirements	Starting in Year 2	0	As the country focus has been on climate mitigation, there is a need to develop consistent technical methodologies and technical capacity to support the mainstreaming of climate adaptation, including its integration with DRR processes
Activity 3.2.2 Review current adaptation interventions, with a focus towards the implementation of effective operational programs, and support the identification, feasibility review, design and preparation of selected project concepts as a preliminary step towards development of a pipeline of adaptation projects	Starting in Year 2		
Activity 3.2.3 Test guidance on adaptation, developed under Activity 3.3 and based on lessons learned and best practice examples, in priority and vulnerable regions to catalyze development and up-scaling of innovative local level adaptation measures	Starting in Year 3		
Activity 3.2.4 Support clarification of the institutional arrangements for managing and monitoring mudflow clearance and consider establishing as an <i>ad hoc</i> working group as part of the climate related coordination mechanism	Year 1		
3.3 Enhance capacity for planning, budgeting and implementation of adaptation			

Activities	Timeframe	Reason for Baseline Status	
Activity 3.3.1 Develop budget analysis tools for climate risks and integrate into decision-making and budgetary allocation tools in sectors and at the central and sub-national planning levels	Starting in Year 3	0	As the country focus has been on climate mitigation, there is a need to develop consistent technical methodologies and technical capacity to support the mainstreaming of climate adaptation in budget and development planning for improved implementation results
Activity 3.3.2 Develop guidelines for local (settlement and municipal) level risk assessment and adaptation planning	Starting in Year 1		
Activity 3.3.3 Develop guidelines for climate resilient urban development to support identification of urban adaptation options	Starting in Year 2		
Activity 3.3.4 Identify gaps and develop a process to facilitate the communication and integration of adaptation into school curricula and awareness rising	Starting in Year 2		
Activity 3.3.5 Expand the capacity of Agriculture Extension Services to provide training on climate adaptation to end users and implement training over four years	Starting in Year 2		
3.4 Promote coordination and synergy at the regional level and with other multilateral environmental agreements			
Activity 3.4.1 Participate in regional or international learning events and knowledge sharing events and other such forums, to share experience on the NAP development process and on climate adaptation	Starting in Year 1	0	The sharing of experiences gained will help Armenia further tailor its approach and improve its continuous learning processes
4. Mechanisms for Reporting, Monitoring and Review of NAPs and adaptation progress in place			
4.1 Enhance capacity to monitor the NAP process and adaptation progress			
Activity 4.1.1 Identify existing monitoring and evaluation activities and processes within government that offer entry points for adaptation and the institutions responsible	Year 1–2	0	M&E for climate mitigation is embryonic, though improving. For climate adaptation, M&E capacity is essentially non-existent
Activity 4.1.2 Identify and develop gender-responsive CCA indicators and criteria for review and monitoring of national and sectorial progress on climate adaptation; and support their integration into legislation, processes and regulations, as needed, as well as integration with the monitoring of the Sustainable Development Goals	Starting in Year 2		
Activity 4.1.3 Establish a reporting framework by which all sectors will need to report regularly to the Inter-Agency Coordination Council on implementation of UNFCCC agreements/decisions, and climate adaptation in particular, with a formalized reporting format	Starting in Year 2		
Activity 4.1.4 Initiate development of a gender sensitive and transparent monitoring system in the priority sectors (previously listed) for evaluation and revision of the NAP process at national and sectorial level in order	Starting in Year 2		

Activities	Timeframe		Reason for Baseline Status
to link the NAP reporting cycle to the National Communication reporting cycle			
4.2 Review the NAP process to assess progress, effectiveness and gaps.			
Activity 4.2.1 Implement review of NAP processes, activities and lessons learned in preparation of up-scaling and expansion of NAP activities and implementation measures	Year 2 / Year 4	0	As the NAP process is being developed, lessons learned and review activities on climate adaptation have not yet occurred
Activity 4.2.2 Establish a process for updating the adaptation components of national and sectorial development plans	Year 3–4		
4.3 Iteratively update national adaptation plan			
Activity 4.3.1 Based on progress made under the first NAP cycle (2018 – 2021), develop an action plan for the second NAP cycle (2022 – 2025)	Year 4	0	Towards the end of the first cycle of the NAP process, a roadmap and program for the second cycle (2021–2025) needs to be developed
4.4 Conduct outreach on the NAP process and report on progress and effectiveness			
Activity 4.4.1 Organize regular (e.g., annual) stakeholder (local, sectorial, national, private, public) thematic consultations and workshops to raise awareness on risks and opportunities related to climate change and the NAP process in particular, and to identify synergies between adaptation and development objectives and to facilitate transparent reporting on NAP inputs, outputs and successes	Starting in Year 1	0	<ul style="list-style-type: none"> As the country focus has been on climate mitigation, climate adaptation is an “unknown quantity” and there is a need for a high level of outreach intensity Shared experiences and learning gained from other countries may help Armenia tailor and improve its approach to climate adaptation
Activity 4.4.2 Develop knowledge management and outreach products on gender sensitive climate adaptation	Starting in Year 1		
Activity 4.4.3 Disseminate information on the NAP process and its progress to regional and international partners and stakeholders	Starting in Year 1		
5. Funding strategy for the NAP and CCA is available			
5.1 Conduct studies to inform future investments in adaptation across sectors			
Activity 5.1.1 Determine the long-term financial needs to support adaptation. As part of this process, review the prioritized adaptation options in Activities 2.2 and 3.1; review current adaptation related expenditures and determine the medium-term budget needs	Starting in Year 3		With the identification of adaptation needs, their prioritization and inclusion in financial planning will become a priority. As part of this process, there is a need to sensitize stakeholders on the available options and cost-benefit of each approach
Activity 5.1.2 Sensitize stakeholders on nationally and internationally available financing mechanisms	Starting in Year 3		
5.2 Identify, analyze and recommend policy options for scaling up financing for adaptation, including through public-private partnerships			

Activities	Timeframe	Reason for Baseline Status	
Activity 5.2.1 Establish community and public-private partnerships to support sectorial, sub-national and local adaptation planning and actions, focusing on development of implementation capacity for adaptation	Starting in Year 3		
Activity 5.2.2: Assess private sector engagement in climate adaptation and develop a strategy to strengthen the enabling environment for private sector investments for climate change adaptation at national and local levels to support increased uptake of innovative adaptation technologies	Starting in Year 3	0	The private sector as a whole is relatively weak in terms of climate action, however, there is a need to start developing private sector capacity to both address and participate in climate adaptation related activities
5.3 Update financing strategy for an iterative NAP process			
Activity 5.3.1 Take stock and assess existing and potential financing options, including outreach to donor community to explore co-financing of NAP process and implementation	Starting in Year 3		
Activity 5.3.2 Develop a set of environment and social guideline and safeguards for climate change adaptation to facilitate private sector project development; and work with national banks and investments funds to adopt these safeguards and guidelines into their project evaluation processes to support increased private sector engagement	Starting in Year 3	0	Towards the end of the first cycle of the NAP process, a financial approach for the second cycle (2021 – 2025) and its activities needs to be identified
Activity 5.3.3 Identify funding sources for the second iteration/cycle of NAP and its implementation	Year 4		

ANNEX A – MISSION AGENDA

Mission Schedule December 7 – 9, 2016

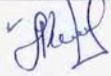
Wednesday, Dec 7			
TIME	VENUE and Organization	Participants	Comments
10:00 – 11:00	Climate change office Discussion of the goal of the visit and plan of work	Diana Harutyunyan	
11:00 – 12:30	Hydromet Discussion of issues regarding development of the National Adaptation Plan (NAP), as well as issues regarding impact of climate change, national policies, plans and strategies	Mr. Levon Vardanyan Director Mr. Hamlet Melkonyan Deputy Director UNDP – Diana, Vardan	During the meeting, there has been presented the upcoming project on NAP development, as well as there have been discussed difficult issues related to CCA, including the need for development of coordination mechanisms. See \\cc-dc\Heat for all\09_NAP\Stakeholder feedback\hydromet.doc for details.
13:00 – 14:00	Lunch		
14:00 – 15:00	Climate change office	Vardan Melikyan, Adaptation Expert Gohar Hovhannisyan, UNDP CRM Expert	There have been presented the results of implementation of CRM Project in Armenia, including activities related to agriculture insurance, capacity building for Hydromet, pilot projects, etc. See \\cc-dc\Heat for all\02_DRR-CRM\09_Reports\UNDP\CRM-Lessons_Learned-Report-2016_arm_final.doc for details.
17:00-18:00	UNDP Sustainable Development and Resilience Portfolio, UNDP Armenia 316 room	UNDP Sustainable Development and Resilience Portfolio Colleagues	
16:00 – 17:00	Ministry of Nature Protection Discussion of issues regarding development of the National Adaptation Plan (NAP), as well as issues regarding coordinating climate change,	Mr. Simon Papyan First Deputy Minister Ministry of Nature Protection Mr. Artur Danielyan	

	national policies, plans and strategies	Head of International Cooperation Department Mr. Aram Gabrielyan UNFCCC Focal Point Ms. Asya Muradyan Head of Climate Change and Atmosphere Protection Policy Division UNDP – Diana	
Thursday, Dec 8			
9:30 -13:00	Stakeholder roundtable with relevant line ministries about NAP process (what is NAP, discussion on how ARM would like to engage in the process, and initial thoughts from line ministries on approach for moving forward, as well as an initial assessment of capacities). After roundtable is over; a 1 hour brief discussion of results		After the presentations on Paris Agreement, CCA-related processes and NAP development, the stakeholders have been divided into 4 groups to discuss questions related to NAP process. (\\cc-dc\Heat for all\09_NAP\Ephrat\Questions_Arm_RB_111016.doc) See \\cc-dc\Heat for all\09_NAP\NAP event_08.12.16\Final\Draft Agenda_Arm.doc for details.
13:00 – 14:00	LUNCH		
14:00 – 15:00	Ministry of Emergency Situations	Hovhannes Yemishyan Head of population and territory protection department UNDP – Diana, Vardan	During the meeting in MES it has been mentioned that climate change in Armenia has already resulted in increased frequency of flooding, early spring freezing and other extreme weather events. In order to properly manage these there is need for development of interagency group on water issues, while currently Armenia has several agencies dealing with different aspects of water use and management.

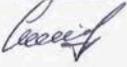
			Damage assessment methodology is another important issue requiring solution. See \\cc-dc\Heat for all\09_NAP\Stakeholder feedback\1582-N Vnasi gnahatman karg.doc and \\cc-dc\Heat for all\09_NAP\Stakeholder feedback\Varchapet 325-A.doc for details.
16:00 17:30	- UNDP CO debriefing	Claire Medina Armen Martirosyan Diana Harutyunyan	
17:30	Ministry of Energy Discussion of issues regarding development of the National Adaptation Plan (NAP), as well as issues regarding impact of climate change, national policies, plans and strategies	Hayk Badalyan Head of Renewable Energy and Energy Saving Department UNDP - Diana	
Friday, December 9			
10:00 17:00	- Work on development of project proposal on NAP preparation for further funding by GCF or meeting with line ministry		

ANNEX B – CONSULTATIONS

Participants in the December 8, 2016 Roundtable

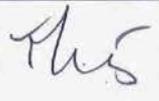
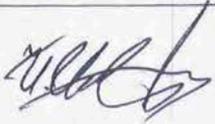
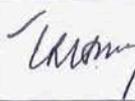
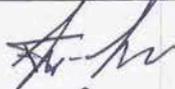
 <p>«Բեյթ» Վեյթերն Կոնզերն» հյուրանոց, Մեծ դահլիճ 2016թ. դեկտեմբերի 8</p>  <p>Empowered lives. Resilient nations.</p>			
Մասնակիցների ցանկ			
Անուն	Կազմակերպություն/Պաշտոն	Ստորագրություն	
Նախարարություններ և գերատեսչություններ			
1.	Ա. Հարությունյան	«Վարչապետության նախարարի տեղակալ»	
2.	Ս. Սահակյան	«Վարչապետության նախարարության հողերի օգտագործման և մեխորացիայի վարչության մեխորացիայի բաժնի պետ»	
3.	Ա. Պետրոսյան	«Վարչապետության նախարարության Անտառային տնտեսության բաժնի պետ»	
4.	Ռ. Պետրոսյան	«Վարչապետության նախարարության Հայանտառ ՊՈԱԿ-ի տնօրենի տեղակալ»	
5.	Վ. Մացակյան	«Վարչապետության նախարարության Հայանտառ ՊՈԱԿ»	
6.	Ա. Գիլոյան	«Տարածքային կառավարման նախարարության աշխատակազմի տեղական ինքնակառավարման վարչության պետ»	
7.	Ա. Ռոստոմյան <i>Ք. Քաղաքացյան</i>	«Տարածքային կառավարման և զարգացման նախարարության Տարածքային կառավարման վարչության պետ»	
8.	Ն. Ավետյան	«Տարածքային կառավարման և զարգացման նախարարության Տարածքային ներդրումային քաղաքականության վարչության Տարածքային ներդրումային ծրագրերի և ֆինանսական գործիքների աջակցության բաժնի պետ»	
9.	Ա. Բաղդասարյան	Տնտեսական զարգացման և ներդրումների նախարարության Տնտեսական զարգացման քաղաքականության վարչության պետ»	
10.	Մ. Զավախյան	Տնտեսական զարգացման և ներդրումների նախարարության Տնտեսական զարգացման քաղաքականության վարչության աշխատակից»	

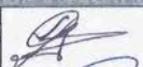
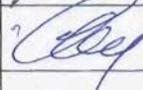
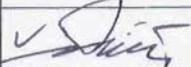
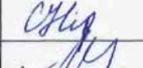
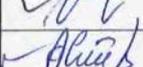
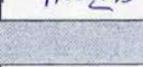
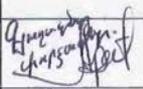
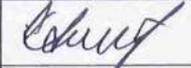
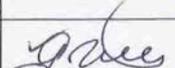
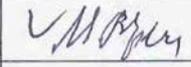
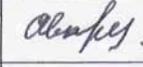
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11.	Յու. Պողոսյան	ՀՀ վիճակագրության պետական խորհրդի անդամ	
12.	Ա. Գաբրիելյան	ՄԱԿ-ի «Կլիմայի փոփոխության մասին» շրջանակային կոնվենցիայի ազգային համակարգող	
13.	Հ. Մելքոնյան	ՀՀ արտակարգ իրավիճակների նախարարության Հիդրոօդերևութաբանության և մթնոլորտային երևույթների վրա ակտիվ ներգործության ծառայության տնօրեն տեղակալ	
14.	Լ. Ազիզյան	ՀՀ արտակարգ իրավիճակների նախարարության Հիդրոօդերևութաբանության և մթնոլորտային երևույթների վրա ակտիվ ներգործության ծառայություն	
15.	Ե. Խալաթյան	ՀՀ արտակարգ իրավիճակների նախարարության Հիդրոօդերևութաբանության և մթնոլորտային երևույթների վրա ակտիվ ներգործության ծառայություն	
ՀՀ բնապահպանության նախարարություն			
16.	Գ. Ներսիսյան	Բնապահպանական ծրագրերի իրականացման գրասենյակ ՊՀ տնօրեն	
17.	Ա. Հարությունյան	Բնապահպանական ռազմավարական ծրագրերի ու մոնիթորինգի վարչության պետ	
18.	Ա. Դանիելյան	Միջազգային համագործակցության վարչության պետ	
19.	Ն. Հովհաննիսյան	Միջազգային ծրագրերի կառավարման ու մոնիթորինգի բաժնի պետ	
20.	Ա. Մուրադյան	Կլիմայի փոփոխության և մթնոլորտային օդի քաղաքականության բաժնի պետ	
21.	Ա. Հովհաննիսյան	ՀՀ Կենսատեսությունների կառավարման գործակալության	
22.	Վ. Դավթյան	Ջրային ռեսուրսների կառավարման գործակալության պետ	
23.	Լ. Խառատովա	Միջազգային համագործակցության վարչության միջազգային համագործակցության վարչության արտաքին կապերի բաժնի գլխավոր մասնագետ	
24.	Լ. Սարգսյան	Շրջակա միջավայրի պահպանության քաղաքականության վարչության կլիմայի փոփոխության և մթնոլորտային օդի քաղաքականության բաժնի գլխավոր մասնագետ	

25.	Ք. Խաչատրյան	Միջազգային համագործակցության վարչության միջազգային ծրագրերի կառավարման ու մոնիթորինգի բաժնի գլխավոր մասնագետ	
26.	Ք. Հակոբյան	Շրջակա միջավայրի պահպանության քաղաքականության վարչության կլիմայի փոփոխության և մթնոլորտային օդի քաղաքականության բաժնի առաջատար մասնագետ	
27.	Հ. Ղալաջյան	Կենսառեսուրսների կառավարման գործակալության բուսական ռեսուրսների կառավարման բաժնի պետ	
28.	Հ. Սարոյան	ՀՀ բնապահպանության նախարարության Թափոնների և մթնոլորտ արտանետումների կառավարման գործակալության Մթնոլորտ արտանետումների և օդոնային շերտը քայքայող նյութերի առաքման թույլտվությունների բաժնի պետ	
Կրթական հաստատություններ			
29.	Հ. Ղազարյան	Հ. Պետրոսյանի անվ. հողագիտության, ագրոքիմիայի և մելիորացիայի գիտական կենտրոնի տնօրեն	
30.	Ա. Ալեքսանյան	Բուսաբանության ինստիտուտ	
31.	Ա. Կարախանյան	«Գեոդիսկ» գիտահետազոտական ընկերության տնօրեն	
32.	Ս. Ավետիսյան	Հայաստանի պետական տնտեսագիտական համալսարանի «Ամբերդ» հետազոտական ինստիտուտի տնօրեն	
33.	Ա. Աղազարան	Հայաստանում Ֆրանսիական համալսարանի Կառավարման ֆակուլտետի ղեկան	
34.	Ռ. Նազարյան	Հայաստանի ագրարային համալսարան	
35.	Տ. Չիտչյան	Հայաստանի ագրարային համալսարան	
36.	Գ. Թորոսյան ձ. Բուրաչյան նրան ամբ. ղեկավար	Հայաստանի ազգային պոլիտեխնիկական համալսարանի «Քիմիական տեխնոլոգիաներ և բնապահպանական ճարտարագիտություն» ֆակուլտետի «Քիմիական տեխնոլոգիաներ» ամբիոնի վարիչ	

Հիմնադրամներ, ՀԿ-ներ			
37.	Ս. Գալստյան	Բնության Համաշխարհային ֆոնդ	
38.	Ս. Մովսիսյան	Կարմիր Խաչ ՀԿ/Կլիմա Ֆորում Իստ ծրագրի համակարգող	
39.	Ն. Հարությունյան	Կովկասի տարածաշրջանային բնապահպանական կենտրոն ՀԿ տնօրեն	
40.	Ա. Հովսեփյան	“Ազգային ջրային համագործակցություն” ՀԿ նախագահ	
41.	Ա. Համբարձումյան	“Խազեր” էկոլոգամշակութային ՀԿ նախագահ	
42.	Կ. Դանիելյան	“Հանուն մարդկային հասարակության կայուն զարգացման” ասոցիացիա ՀԿ նախագահ	
43.	Է. Մեսրոպյան	“Զինջ” խորհրդատվական ընկերության տնօրեն	
44.	Ն. Սարուխանյան	Կանաչ Արահետ ՀԿ	
45.	Ի. Զարաֆյան	Էկոլոգ ՀԿ	
46.	Ս. Այվազյան	Երևանի Օրիոս կենտրոն	
Միջազգային կազմակերպություններ և ծրագրեր			
47.	Մ. Վարդանյան	ԱՄՆ ՄՁԳ բնապահպանական հարցերով մասնագետ	
48.	Գ. Նասոյան Ս. Զաֆարյան	Պարենի ու գյուղատնտեսության կազմակերպության Գործադիր ներկայացուցիչ	
49.	Ա. Սիմոնյան	ՄԱԿ-ի արդյունաբերության զարգացման կազմակերպության ծրագրերի ղեկավար	
50.	Է. Սաֆարյան	ԵԱՀԿ Բնապահպանական անվտանգության պատասխանատու	
51.	Գ. Ղազինյան	ԵԱՀԿ Բնապահպանական հարցերով պատասխանատու	
52.		Oxfam	
53.		GIZ	
54.	Մ. Վերմիշև	Երկամյա առաջընթացի զեկույցի ավագ փորձագետ	
55.	Բ. Զաքարյան	Ջրային ռեսուրսների խոցելիության գնահատման փորձագետ	
56.	Ա. Ավազյան	Գյուղատնտեսության խոցելիության գնահատման փորձագետ	
57.	Ն. Ասլանյան	Կլիմայի փոփոխության փորձագետ	
58.	Ա. Ասճատրյան	Կլիմա- Արևելք Ծրագիր	

ՄԱՁԾ հայաստանյան գրասենյակ			
59.	Ա. Մարտիրոսյան	ՄԱՁԾ Կայուն աճի և զարգացման բաժնի ղեկավար	
60.	Տ. Քոլոյան	ՄԱՁԾ Կայուն աճի և զարգացման բաժնի ծրագրերի օգնական	
61.	Դ. Հարությունյան	ՄԱՁԾ կլիմայի փոփոխության ծրագրերի համակարգող	✓
62.	Վ. Մելիքյան	ՄԱՁԾ փորձագետ	✓
63.	Հ. Սայադյան	ՄԱՁԾ տեխնիկական առաջադրանքի ղեկավար	
64.	Ա. Տեր-Ջաքարյան	Կլիմա - Արևելք ծրագրի առաջադրանքի ղեկավար	
65.	Ա. Զիլինգարյան	ՄԱՁԾ Աղետների ռիսկերի նվազեցման ծրագրերի համակարգող	- <i>[Signature]</i>
66.	Հ. Ղազարյան	ՄԱՁԾ-ԳԷՖ փոքր դրամաշնորհների ծրագրի համակարգող	
67.	Տ. Վահրադյան	ՄԱՁԾ-ԳԷՖ ծրագրի օգնական	✓ <i>[Signature]</i>
68.	<i>Ծ. Մարտիրոսյան</i>	<i>ՄԱ. ԱՁ</i>	<i>[Signature]</i>
69.	<i>Մարի Ալեքսանյան</i>	<i>Օրհա Կենտրոն</i>	<i>[Signature]</i>
70.	<i>Նարեկ Նախչյան</i>	<i>Փոփոխություն</i>	<i>[Signature]</i>
71.	<i>Անահիտ Մարտիրոսյան</i>	<i>Փոփոխություն</i>	<i>[Signature]</i>
72.			
73.			
74.			
75.			
76.			
77.			
78.			
79.			
80.			



ANNEX C – SUMMARY OF MEETING MINUTES

The following meetings were undertaken during the mission:

Meeting With	Date	Main Issues Discussed/Raised
UNDP CO	Dec 7, 2016	Review of process and final agenda review
Hydromet	Dec 7, 2016	<ul style="list-style-type: none"> Review of NAP process Summary of current Hydromet activities Discussion on incomplete climate risk and vulnerability analyses Discussion on challenges and concerns for climate and DRR mainstreaming
UNDP, Climate Change Office	Dec 7, 2016	<ul style="list-style-type: none"> Review of NAP process Expectations for NAP Key issues that should be reflected in the NAP: coordination, closing of data and information gaps, technical and skilled capacity
Ministry of Nature Protection	Dec 7, 2016	<ul style="list-style-type: none"> Review of NAP process Expectations for NAP Key issues that must be reflected in the NAP: link to NDC, coordination, technical and skilled capacity
Roundtable	Dec 8, 2016	<ul style="list-style-type: none"> Review of NAP process Appropriate approach for NAP in Armenia Expectations on adaptation, at sectorial level See below meeting notes
Ministry of Emergency Situations	Dec 8, 2016	<ul style="list-style-type: none"> Review of NAP process Summary of ministry activities Climate risk and vulnerability analyses Knowledge of and access to existing climate data in sectors Challenges and concerns for climate and DRR mainstreaming Opportunities for cooperation on adaptation
UNDP CO	Dec 8, 2016	Summary briefing

Stakeholder Roundtable on National Adaptation Planning Process

08.12.2016

Meeting notes on discussion within groups

The 48 participants of the roundtable after plenary session were divided into 4 groups and discussion was structured around questions shared with participants

1. *Which are the country development main priorities and to what extent they are interconnected with climate change issues.*

Sustainable development of agriculture, food safety, sustainable management of natural resources including conservation issues, ecotourism development, sustainable development targeted to the well-being of the population, intellectual development, regional integration

2. *Please identify the sectors where the NAP development can reduce the country's vulnerability under climate change
-please identify to what extent that measure can reduce vulnerability*

Socio-economic development with ecosystem approach; biodiversity conservation as precondition for sustainable development. Adaptation measures: forestry development- reforestation, drip irrigation for reducing water scarcity, ecosystems valuation with their diversity, energy sector, health, education and awareness raising, migration issues, food safety, all the sectors mentioned in the Armenia's INDC, integration of social vulnerable and other groups, climate risks mitigation, regional balanced development, regional and community development, risks modeling. There is a need to establish information management united system and the information should be accessible for all experts.

3. *Which are your sector possibilities that may contribute to the NAP harmonization with the national development processes.*

To develop climate change adaptation national strategic document with the action plan with reference to the current national development strategy action plan. The adaptation action plan document should be interconnected with the other sectorial strategies and action plans, as well as with the community development action plans as national: SDGs, Sendai Action Plan, Paris Agreement. Currently disaster risk strategy is under development and submitted to the Government for approval and climate change issues should be incorporated in every sector.

The school programs are also under review and it can be considered as opportunity for incorporation of climate change problems into the school programs.

Key issue for climate change adaptation is water economy, reduction of losses and irrigation problems. Climate change issues should be mainstreamed in the regional and local development strategic documents.

There are three important strategies in environmental sector with action plans which are already adopted and include climate change adaptation measures in them, so while developing the document this strategies should be taken into consideration: biodiversity strategy, strategy on specially protected areas, strategy on desertification.

There are different strategies in different formats in key sectors. There must be developed approach/guidance on how incorporate the climate change issues in all these strategies.

The climate change problem is a complex and to deal with this we need to approach the matter with synergy and integrity. The climate change issues should be included in all the sectorial strategies.

It is very important to allocate financial resources to implement all the actions mentioned in the strategies. So, the budget planning and allocations are very important for implementation of the adaptation measures. With this respect financial and economic analysis should be also conducted, how realistic are the mentioned adaptation actions and the cost and benefits must be used for advocacy, as well as used to attract different funds and resources for implementation of that measures.

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4. Any observations related to the national adaptation planning process, gaps, constrains

- The absence of the early warning system. To establish an information system and create a database. However there are also some positive developments, on early warning system, e.g. detailed forecast is provided via TV channels, the mobile applications are used for informing framers about the climate risks as early frosts, etc.
- The best option for Armenia can be application of the 'combined' model for dealing with climate change adaptation issues.
- The gaps, constraints and needs are mentioned in the Armenia's national communications on climate change. These gaps and constraints should be taken into consideration. We have climate forecasts done and the information can be used, the adaptation measures implemented in the countries with the same climate conditions as forecasted can be analyzed and applied.
- There is a problem with risk modeling mostly on the community level as was applied is several communities. There should also be center, where the information on risks and losses should be collected, analyzed and communities have to be advised on risk mitigation measures.
- It is important to study the countries' experience, which are in the same climatic conditions as we are.
- Education and awareness raising component should be targeted and tailored.
- Government, business and society should work together while dealing with climate change adaptation issues.
- The climate change adaptation document is desirable to have the exact action plan with the certain time indications and the actions should be mentioned according to the sectors and have also time bound monitoring indicators for tracking implementation progress.

Annex D – TOC Diagram

