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Building Adaptive Capacity and Resilience to Climate Change in Afghanistan (LDCF)

BASELINE ASSESSMENT REPORT

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ACRONYMS

AAIP	Afghanistan Agricultural Inputs Project
ACF	Action Contre la Faim
ACTED	Agence d'Aide à la Coopération Technique Et au Développement
AMA	Afghanistan Meteorological Authority
AMIT	Affordable Micro-irrigation Technology
ANDMA	Afghanistan National Disaster Management Authority
APF	Adaptation Policy Framework
COAM	Conservation Organization for Afghan Mountains
CSO	Afghanistan's Central Statistics Organization
FAO	UN Food and Agriculture Organisation
FOCUS	Focus Humanitarian Assistance
GEF	Global Environment Facility
GERES	Groupe Energies Renouvelables, Environnement et Solidarités
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
ICARDA	International Centre for Agricultural Research in the Dryland Areas
INC	Initial National Communication to the UNFCCC
JDAI	Joint Development Agriculture International
LDC	Least Developed Country
LDCF	Least Developed Countries Fund
MAAO	Modern Agriculture Animal Husbandry Organization
MAIL	Ministry of Agriculture, Irrigation, and Livestock
MEW	Ministry of Energy and Water
MoEc	Ministry of Economy
MoEd	Ministry of Education
MRRD	Ministry of Rural Rehabilitation and Development
NAC	Norwegian Afghanistan Committee
NAC	Norwegian Afghanistan Committee
NAPA	National Adaptation Programme of Action
NCSA	National Capacity Self-Assessment
NEPA	National Environmental Protection Agency
PCDMB	UNEP Post-conflict and Disaster Management Branch
PGO	Provincial Governor's Office
SNC	Second National Communication to the UNFCCC
UN-Habitat	UN Human Settlements Programme
UNAMA	United Nations Assistance Mission in Afghanistan
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
VRA	Vulnerability Reduction Assessment
WFP	UN World Food Programme

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1. EXECUTIVE SUMMARY

The Islamic Republic of Afghanistan is a beneficiary of the climate change adaptation project "Building Adaptive Capacity and Resilience to Climate Change in Afghanistan," supported by the Least Developed Countries Fund (LCDF) under the Global Environment Facility (hereafter called the LCDF project). This project aims to reduce the vulnerability of Afghanistan's rural communities and economy to current and future climate variability and risks by: 1) strengthening government capacity on climate change monitoring and forecasting; 2) mainstreaming climate change adaptation into policies and planning; 3) promoting ecosystem management as an approach to climate change adaptation; and 4) increasing knowledge and awareness of climate change adaptation and best practices at the national, provincial, and community levels.

This report presents the baseline conditions for the LDCF project, including specific baselines values for all project outcome and output level indicators. Data for this baseline research was collected from February – August 2014; sources of this data include: 1) focused literature reviews (government laws, policies, and strategies, as well as NGO reports); 2) structured interviews with representatives of six government agencies at the national level in Kabul and representatives of ten government agencies in all four target provinces of Badahkshan, Balkh, Bamyan, and Daikundi; 3) consultations with 22 non-governmental organizations and other stakeholders in all four target provinces; and 4) consultations with 30 local communities in all four target provinces.

Key findings and results from the baseline research included in this report include:

- Detailed review of all project objective and outcome level indicators to ensure they are specific, measurable, achievable, relevant, and timebound (SMART).
- Determination of baseline values for all project objective and outcome level indicators included in the results framework.
- Revised project results framework to track project progress.
- Development of protocols for data collection and monitoring of all project objective and outcome level indicators.
- Design of climate change survey questionnaire templates to collect information on government institutional capacity, community livelihoods, and community environmental and socioeconomic conditions.

2. INTRODUCTION

The Islamic Republic of Afghanistan has secured funding for a Full-Sized Project under the Global Environment Facility (GEF) administered Least Developed Countries Fund (LDCF). The LDCF is a trust fund under the United Nations Framework Convention on Climate Change (UNFCCC) that aims to reduce climate change vulnerability and increase adaptive capacity in Least Developed Countries by facilitating the identification and implementation of critical and urgently required adaptation interventions. This project, titled "Building Adaptive Capacity and Resilience to Climate Change in Afghanistan," (hereafter "LDCF project") aims to increase the resilience of vulnerable communities and build the capacity of local and national institutions to address climate change risks in Afghanistan.

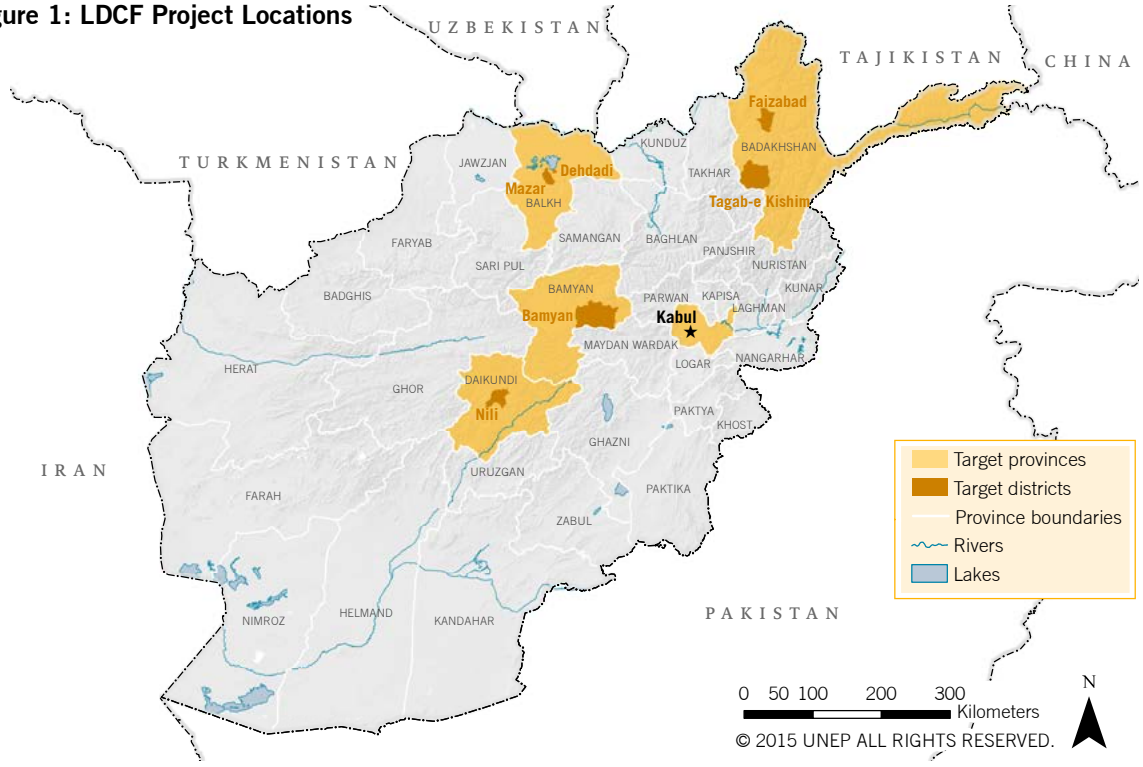
The executing agency for the LDCF project is the National Environmental Protection Agency (NEPA) of the Government of the Islamic Republic of Afghanistan, with execution support provided by the United Nations Environment Programme (UNEP) Post-conflict and Disaster Management Branch (PCDMB) Afghanistan Country Programme. Additional key governmental project partners and stakeholders include: the Ministry of Agriculture, Irrigation, and Livestock (MAIL), the Ministry of Energy and Water (MEW), the Ministry of Rural Rehabilitation and Development (MRRD), the Afghanistan National Disaster Management Authority (ANDMA), and the Afghanistan Meteorological Authority (AMA). The total budget of the LDCF project is US$ 5.39 million, and project implementation duration is three years (May 2013 to December 2017).

The LDCF project is especially relevant to Afghanistan as numerous global indices identify it as one of the world's most vulnerable countries to climate change.[I] Moreover, a legacy of more than three decades of instability and conflict has resulted in Afghanistan being very poorly developed; much of the infrastructure has been damaged or destroyed, and education and government structures have been weakened.[2] Afghanistan is also a predominantly agricultural country with approximately 79 percent of the population engaged in agricultural activities, the majority at a subsistence level.[3] Although a significant portion of these agricultural activities is dependent on the very low precipitation the country receives, many more are dependent on the flow of several perennial rivers that originate in the central highlands area. Natural ecosystems throughout Afghanistan are very fragile, with highly erodible soils and very low vegetation cover in most areas.[4] In many areas of the country, the degrading effects of human activity are exacerbated by current climate variability, especially frequent droughts and extreme weather induced floods and erosion.

At present, Afghanistan is experiencing an increase in the number and intensity of droughts, as well as more frequent flooding events as a result of increased climate variability and the melting of glaciers in highland regions. In 2014, for example, severe flooding beginning in March struck nearly every province in northern Afghanistan, resulting in widespread damage and loss of life. By the end of May 2014 it was estimated that the total number of people affected by this extreme flooding stood at 125,000, with nearly 7,000 houses destroyed and an additional 7,000 houses severely damaged, with the northern provinces of Jawzjan, Faryab, Sar-e Pul, Baghlan, and Balkh the most affected.[5] During this same period, in Badakhshan province extreme rain and floods caused a large landslide in Argo district, claiming the lives of up to 500 people and destroying approximately 300 homes, as well as wide stretches of agricultural land.[6]

[1] DARA Climate Vulnerability Monitor (2012); GermanWatch Global Climate Risk Index (2013); and Notre Dame Global Adaptation Index (2014).
[2] GEF (2012), p.2
[3] UNEP (2009b), p.17
[4] GEF (2012), p.2
[5] UNOCHA (2014b)
[6] UNOCHA (2014a)
[7] NEPA/UNEP (2009), p.76
[8] GEF (2012), p.2

Figure 1: LDCF Project Locations



Afghanistan's National Adaptation Programme of Action (NAPA) highlights water as the country's primary climate change concern, which is reflected in two priority areas identified in the NAPA: "1: improved water management and use efficiency" and "2: community-based watershed management."[7] It is predicted that the incidence of extreme weather events and droughts will increase, as will climate change-linked disasters such as glacial lake outflows.[8] These changes are likely to adversely affect natural ecosystems, agriculture, and community livelihoods throughout the country. Furthermore, national structures, including communities, district leaders, researchers, and government agencies currently lack the capacity to plan for, overcome, and withstand anticipated climate change-related threats.[9] This capacity deficit, as well as underlying vulnerability to climate change impacts, is exacerbated by the following non-climate change-driven causes:

1. Unsustainable use of natural resources;
2. High poverty levels;
3. Dependence on rain-fed agriculture; and
4. Poorly developed policy environment.

To address these issues, the LDCF project aims to strengthen institutional capacity in Afghanistan to facilitate effective adaptation planning and protection of communities, ecosystems, and development against climate change. Community and local capacity will be strengthened to successfully respond to climate change, which will include demonstration interventions at pilot sites in four provinces (Badakhshan, Balkh, Bamyan, and Daikundi) to restore and sustainably manage ecosystems so that they can deliver a full range of ecosystem services, especially the provision of water.

At each of the project's pilot sites, ecosystem management approaches will be tailored to build climate resilience in local communities in order to enhance the benefits provided by ecosystems and ensure their resilience under conditions of climate change. A primary focus of the ecosystem management approach to adaptation will be the community-based

[9] GEF (2012), p 2

re-establishment of indigenous plant species with multiple benefits to local populations, particularly with respect to improving water availability and water flow despite conditions of climate change. Although the activities are site-specific, the adaptation benefits will accrue at multiple scales, ranging from small highland water catchments to large downstream basins, which will ensure that the cost-effectiveness of the project interventions is maximised.

In order to measure the progress and impact of this project, this baseline assessment was conducted to determine the baseline conditions for objective and outcome level indicators identified in the project's results framework. UNEP's Monitoring and Evaluation Specialist conducted the research for this baseline assessment, in conjunction with the LDCF National Project Coordinator, LDCF Climate Adaptation Specialist, and numerous NEPA staff at the national and provincial levels. Data was collected at the national and provincial levels through structured interviews with 10 government ministries and consultations with 22 non-governmental organizations.

Field site visits were conducted to all pilot project sites in Badakhshan, Balkh, Bamyan, and Daikundi provinces for consultations with 30 local communities. In these consultations, the objectives of the LDCF project were introduced, and discussions were held to identify priority areas, opportunities, and challenges faced by local communities in the area of climate change adaptation. Although conditions in each of these four provinces are unique, most local communities expressed that water was a key priority issue, both in terms of limited access to water during periods of drought and excessive amounts of water during periods of flood. Likewise, most communities expressed a desire for ecological approaches and community-based adaptation measures to improve their livelihoods and agricultural output, particularly terracing, tree planting, water harvesting, and affordable micro-irrigation technologies (AMIT).

Following data collection at the national and provincial levels, the results were compiled, analysed, and used to revise the original project results framework in order to ensure that project implementation is guided and informed by a detailed understanding of current conditions in Afghanistan.

The following report presents the summary and synthesis of the baseline research and consists of the following seven sections:

SECTIONS 1 AND 2: contain the executive summary and introduction that provide background information on the objectives and methodology of the baseline assessment.

SECTION 3: contains a brief synopsis of the objectives of this project as well as implementation approaches at the national and provincial levels.

SECTION 4: contains a description of the methods employed in conducting this baseline study at the national and provincial levels, including interviews, surveys, consultations, and revisions to project indicators.

SECTION 5: contains a detailed comparison of the original and recommended revised indicators for this project, including justification for why any indicators and/or targets have been revised.

SECTION 6: contains the complete revised results framework for this project, including detailed baseline figures, means of verification, and identification of responsible parties for conducting project monitoring.

SECTION 7: contains the monitoring and evaluation strategy for project activities across the life of the project.

SECTION 8: contains a list of all references consulted for this baseline assessment.

ANNEXES: contain sample surveys and questionnaires that were used for collecting research at the national and provincial levels, consolidated data from all interviews conducted, and lists of individuals consulted throughout the research period.

3. BRIEF OVERVIEW OF THE LDCF PROJECT

The objective of the LDCF project is to reduce the vulnerability of Afghanistan's rural communities and economy to current climate variability and future climate change risks, particularly those associated with future changes in rainfall and temperature regimes. In this regard, the LDCF project will: i) strengthen the capacity of the country to undertake monitoring and forecasting of climate change risks in Afghanistan; ii) create an enabling policy environment to promote climate change adaptation through ecosystem management; iii) promote an ecosystem management approach to climate change adaptation; and iv) increase knowledge of good practices for increasing resilience to climate risks at the local, provincial and national levels. In so doing, the project will enhance Afghanistan's capacity to conduct effective climate change adaptation planning at the national level.

More specifically, the LDCF project is designed to increase the resilience of vulnerable communities and build the capacity of local and national institutions to address climate change risks in Afghanistan through the achievement of the following four interrelated outcomes:

1. Increased capacity and knowledge base for assessment, monitoring and forecasting of climate change-induced risks to water in Afghanistan.
2. Climate change risks integrated into relevant policies, plans and programmes.
3. Reduction of climate change vulnerability in the selected project sites through local institutional capacity building and concrete interventions for improved water use efficiency.
4. Increased knowledge of good practices on increasing resilience to climate change-induced risks to water resources.

In order to achieve Outcome #3, the project will pilot small-scale demonstration interventions in different ecosystems within the four selected provinces of Badakhshan, Balkh, Bamyan, and Daikundi to highlight ways in which agricultural productivity and water flow can be promoted under conditions of climate change through functional improvements to degraded ecosystems (see Table 1: LDCF-1 Pilot Field Interventions, below). In the process, the project will address the following two high priority areas of intervention identified during the NAPA process: "1: Improved water management and use efficiency;" and "2: community-based watershed management."[10] The LDCF project will also address the identified NAPA priority of "improved terracing, agroforestry and agro-silvo pastoral systems" as well as several low priority NAPA objectives, including "climate-related research and early warning systems," "improved food security," and "rangeland management." [11]

[10] NEPA/UNEP (2009), p. 76
[11] NEPA/UNEP (2009), p. 76

Table 1: LDCF Project Pilot Field Interventions (Outcome #3)[12]

Output	Province	Intervention Site	Major Climate Change Risk	Activity	Budget (USD)
3.1	Badakhshan	Faizabad & Keshem Districts	Flood and drought	Improve water management, through: construction of check dams with ~10,500m3 increased capacity, construction of at least 3 impounding water-storage dams, introduction of ~42 ha efficient affordable micro-irrigation technologies (AMIT), development of community-based water management plans, and training of communities on aforementioned technologies.	127,000
3.2	Badakhshan	Faizabad & Keshem Districts	Flood and drought	Identification and promotion of drought-resilient practices, including: inter alia selection and distribution of drought-tolerant crop varieties, identification and implementation of ~400 ha of low-cost water harvesting interventions, identification of multi-use plant species and restoration of ~200 ha of degraded watershed and rangeland areas, and training of communities on aforementioned concepts and implementation of these approaches and techniques.	664,000
	Balkh	Dehdadi & Balkh Districts			
3.3	Daikundi	Nili District	Drought	Watershed management and green infra-structure planning in the Nili peri-urban landscape, including: restoration and re-vegetation of ~120 ha of degraded watershed area with multi-use plant species, construction of ~140 ha of low-cost water barriers and catchment structures to improve water harvesting and conservation, promotion of efficient water usage to rehabilitate the wider watershed, and training of communities on aforementioned concepts and implementation of these approaches and techniques.	411,450
3.4	Bamyan	Bamyan District (Ahangaran, Dukoni, Khushkak, and Foladi valleys)	Flood and drought	Community-based integrated watershed and ecosystem management, including: establishment of community water management associations, development of training tools on integrated watershed management (IWM), conducting trainings on climate change risks and adaptation, and development of IWM plans that include community-based adaptation measures such as terraces, check dams, AMIT, community nurseries, reforestation, rangeland restoration, water harvesting, and other ecological approaches to climate change adaptation.	375,000

[12] GEF (2012), p. 58-64

4. METHODS USED TO DETERMINE INDICATOR SUTABILITY AND BASELINE CONDITION

As joint executing partners for the LDCF project, UNEP and NEPA shared responsibility for the review of the results framework and establishment of baseline conditions, with tasks and responsibilities split equitably between both agencies. Together, UNEP and NEPA designed the research methodology, developed survey questionnaires for structured interviews with government ministries (See Annexes 4, 5, 6, and 7 for questionnaire templates), and jointly collected data at the national and provincial levels. In addition, valuable contributions to data collection were provided by focal points at MRRD, MAIL, MEW, ANDMA, and AMA, including the provision of additional human resources for data collection, facilitating access to information, and other assistance as needed at the national and provincial levels.

DETERMINATION OF INDICATOR SUITABILITY

The suitability of project indicators in the results framework was determined by testing them against the SMART criteria:

- **S**pecific: targeted and unambiguous area of measurement.
- **M**easurable: quantifiable, objectively verifiable, and reliable measure of change.
- **A**chievable: realistic and attainable.
- **R**elevant: appropriate measure of the area targeted for improvement.
- **T**ime-bound: grounded within a realistic timeframe.

In addition, project indicators were more generally assessed to ensure that baseline values could be provided for each variable in the indicator statement, targets with a specified timeframe could be set for each variable in the indicator statement, and that indicators were clear, easy to understand, and measurable with reasonable cost and effort over the life of the project.

Project indicators that did not meet the aforementioned SMART criteria were either replaced or amended (see "Table 2: Assessment of Original Project Indicators Using SMART Criteria" for further details).

Table 2: Assessment of Original Project Indicators Using SMART Criteria[13]

ORIGINAL INDICATORS	specific	measurable	achievable	relevant	time-bound
PROJECT OBJECTIVE: **"To increase the resilience of vulnerable communities and build capacity of local and national instutitons to address climate change risks."**					
1. The percentage change in vulnerability (VRA scores, over the life of the project) of men and women living in the identified priority sites to climate change risks related to availability of water for productive and domestic uses.	✓	✓	✓	✓	✓
2. Number of national and sectoral policy and strategy documents revised/or developed to include climate change.	✓	✓	✓	✓	✓
3. Number of national and local experts trained to address climate change and integrate it into national planning.	✗	✓	✓	✓	✗
Component 1: Climate change risk assessment, monitoring and forecasting information					
Outcome 1: Increased capacity and knowledge base for assessment, monitoring, and forecasting of climate change-induced risks to water in Afghanistan					
1.1. Number of climate change risk assessment training events undertaken, and number of staff from relevant agencies trained in the skills necessary for climate change risk assessments.	✗	✓	✓	✓	✗
1.2. Number of staff from relevant agencies trained in specific skills needed for climate change EWS.	✓	✓	✓	✓	✓
1.3. Vulnerability maps based on regional climate change models, spatial models, and hydrological models produced.	✗	✗	✓	✓	✗
1.4. Type, amount, and quality of EWS equipment provided to communities in trial areas.	✓	✓	✓	✓	✗
1.5. SOPs for EWS designed, tested, and integrated into ANDMA structures.	✓	✗	✓	✓	✗
Component 2: Climate change adaptation and response strategies					
Outcome 2: Climate change risks integrated into relevant policies, plans, and programmes					
2.1. Climate change adaptation toolkit developed.	✓	✓	✓	✓	✓
2.2. Climate change adaptation policy for Afghanistan developed.	✓	✓	✓	✓	✓
2.3. Relevant sectoral policy and strategy documents revised to include climate change.	✓	✓	✓	✓	✓

[13] In this table, check marks ✓ signify that the project indicator met the requirements of the SMART criteria subcomponent, while cross marks ✗ signify that it did not and was subsequently revised or replaced (see "Section 5: Original and Recommended Project Indicators, Baselines, and Targets" for details of the revision and replacement process)

ORIGINAL INDICATORS	specific	measurable	achievable	relevant	time-bound
Component 3: Practices for water resources and watershed management piloted and tested in selected project sites					
Outcome 3: Reduction of climate change vulnerability in the selected project sites through local institutional capacity building and concrete interventions for improved water use					
3.1. Change in the number of households with access to efficient water management technologies (including drip irrigation, water storage systems and water canals) for flood and drought management (disaggregated by gender).	✓	✓	✓	✓	✓
3.2. Percentage (%) change in the number of households and total agricultural area where agricultural management techniques adapted to intensive and prolonged droughts are practiced. Such activities include use of drought-tolerant crop varieties, diversification of crops, use of climate change-adapted cultivation practices and maintenance of seed banks.	✓	✓	✗	✓	✓
3.3. Area (ha) of flood-mitigating infrastructure implemented in rural and peri-urban areas.	✓	✓	✓	✓	✓
3.4. Percentage (%) survivorship of newly planted tree and shrub species 24 months after planting date.	✓	✓	✓	✓	✓
Component 4: Adaptive learning and dissemination of lessons learned and best practices					
Outcome 4: Increased knowledge of good practices on increasing resilience to climate change-induced risks to water resources					
4.1. Number of knowledge products generated and disseminated.	✗	✓	✓	✓	✓
4.2. National policy workshop on climate change adaptation organized.	✗	✓	✓	✓	✓
4.3. Number of public service training programmes in Afghanistan integrating knowledge generated from project lessons learned.	✗	✓	✗	✓	✓

DETERMINATION OF PROJECT AND INDICATOR BASELINE VALUES

A variety of research methods were used to establish project objective and outcome indicator baseline values, including: 1) focused literature review, 2) structured interviews with representatives of key government agencies at the national and provincial levels, 3) consultations with key non-governmental organizations and other stakeholders at the provincial level, and 4) consultations with local communities at the provincial level.

Through these research methods it became evident to the baseline research team that there were noticeable gaps in knowledge and awareness of climate change issues, particularly at the provincial level on technical climate change adaptation capacity building activities and the status of community-based EWS. The baseline research team made every effort possible to compare and contrast information gathered through the literature review and interview with government, non-government, and community representatives, but some gaps may still exist. In some instances, and when appropriate, data gathered through interviews with government representatives has been prioritized for the establishment of certain project and indicator baseline values as a reflection of current government knowledge and capacity.

1. FOCUSED LITERATURE REVIEW

A wide range of documents and publications were reviewed and examined for information relevant to the determination of project objective and output level indicator baseline values, including:

- Afghanistan's Post-conflict Environmental Impact Assessment (UNEP)
- Afghanistan's National Capacity Needs Self-Assessment for Global Environmental Management (NCSA) and National Adaptation Programme of Action for Climate Change (NAPA) (NEPA)
- Afghanistan's Initial National Communication to the United Nations Framework Convention of Climate Change (NEPA)
- Afghanistan's LDCF Project Document (GEF)
- Afghanistan's 2008 State of the Environment Report (NEPA)
- A Guide to the Vulnerability Reduction Assessment (UNDP)
- Socio-economic Impacts of Climate Change in Afghanistan (SEI)
- Impact of Climate Change on Afghan Communities: A sociological Study of Balkh, Bamyan, and Jawzjan Provinces in Afghanistan (ActionAid)

In addition, the baseline conditions for objective indicator #2 (Number of national and sectoral policy and strategy documents revised/developed to increase government capacity to adapt to climate change) and outcome indicators #2.3 (Relevant sectoral policy and strategy documents revised to include climate change) were determined by analyzing the following 10 laws and strategy documents:

- Afghanistan National Development Strategy (ANDS) (2008-2013)
- Energy Sector Strategy (2008)
- Environment Law (2007)
- Forest Law (2013)
- National Disaster Framework (2011)

- Rangeland Law (2011)
- Strategic Policy Framework for the Water Sector (2008)
- The Strategic National Action Plan for Disaster Risk Reduction (2011)
- Trans-boundary Water Policy (2007)
- Water Law (2009)

See "Section 8: References" for full details of all materials consulted during the literature review and research of the baseline assessment.

2. INTERVIEWS WITH REPRESENTATIVES OF KEY GOVERNMENT MINISTRIES

Structured interviews using survey questionnaires (Annex 4) were held with the following six government ministries at the national level in Kabul:

- Afghanistan Meteorological Authority (AMA)
- Afghanistan National Disaster Management Authority (ANDMA)
- Ministry of Agriculture, Irrigation, and Livestock (MAIL)
- Ministry of Energy and Water (MEW)
- Ministry of Rural Rehabilitation and Development (MRRD)
- National Environmental Protection Agency (NEPA)

Likewise, structured interviews using survey questionnaires (Annex 5) were held with the following ten government ministries at the provincial level in Badakhshan, Balkh, Bamyan, and Daikundi:

- Afghanistan National Disaster Management Authority (ANDMA)
- Afghanistan's Central Statistics Office (CSO)
- Ministry of Agriculture, Irrigation, and Livestock (MAIL)
- Ministry of Economy (MoEc)
- Ministry of Education (MoEd)
- Ministry of Energy and Water (MEW)
- Ministry of Rural Rehabilitation and Development (MRRD)
- National Environmental Protection Agency (NEPA)
- Provincial Center Municipalities
- Provincial Governor's Office (PGO)

See Annex 1 for a list of all government representatives interviewed.

Information gathered from these structured interviews with government representatives at the national and provincial levels was used in the determination of baseline values for the following project objective and outcome level indicators:

OBJECTIVE #1. The number of people/beneficiaries with access to improved flood and drought management (disaggregated by gender).

OBJECTIVE #2. Number of national and sectoral policy and strategy documents revised/ developed to increase government capacity to adapt to climate change.

OBJECTIVE #3. Number of government and national experts trained on technical climate change adaptation themes.

1.1. Number of staff from relevant agencies trained in specific skills needed for climate change risk assessment.

1.2. Number of staff from relevant agencies trained in specific skills needed for climate change EWS.

1.3. Number of vulnerability maps based on climate change models, spatial models and hydrological models produced for each of the four targeted provinces.

1.4. Type, amount and quality of EWS equipment provided to communities in four targeted provinces.

1.5. Number of SOPs for EWS designed, tested, and integrated into ANDMA structures.

2.1. Climate change adaptation toolkit developed.

2.2. Climate change adaptation policy for Afghanistan developed.

2.3. Relevant sectoral policy and strategy documents revised to include climate change.

4.1. Number of knowledge products on climate change adaptation and resilience generated and disseminated.

4.2. National policy workshop on adaptation to climate change, development of sustainable economic activities and mitigation of the effects of climate change organised.

See Annexes 4, 5, 6, and 7 for sample templates of the survey questionnaires designed, and Annexes 8 and 9 for consolidated data from all interviews conducted using these survey questionnaires.

3. CONSULTATIONS WITH KEY NON-GOVERNMENTAL ORGANIZATIONS AND STAKEHOLDERS AT PROVINCIAL LEVEL

Open-ended consultations and meetings were held with representatives from the following 22 key non-governmental organizations and stakeholders at the provincial level in Badakhshan, Balkh, Bamyan and Daikundi:

- Action Contre la Faim (ACF)
- Afghanaid
- Afghanistan Agricultural Inputs Project (AAIP)
- Agence d'Aide à la Coopération Technique Et au Développement (ACTED)
- Agha Khan Foundation (AKF)
- CARE International

- Chemonics International
- Concern Worldwide
- Conservation Organization for Afghan Mountains (COAM)
- Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)
- Focus Humanitarian Assistance (FOCUS)
- Groupe Energies Renouvelables, Environnement et Solidarités (GERES)
- International Center for Agricultural Research in the Dry Area (ICARDA)
- Joint Development Agriculture International (JDAI)
- Modern Agriculture Animal Husbandry Organization (MAAO)
- Norwegian Afghanistan Committee (NAC)
- Oxfam GB
- UN Human Settlements Programme (UN-Habitat)
- UNDP Afghanistan Sub-national Governance Programme (ASGP)
- United Nations Assistance Mission in Afghanistan (UNAMA)
- United Nations Food and Agriculture Organization (FAO)
- United Nations World Food Programme (WFP)

See Annex 2 for a list of all key non-governmental organizations and stakeholder representatives consulted at the provincial level.

Information gathered from these open-ended consultations and meetings with non-governmental organization representatives at the provincial level was used in the determination of baseline values for the following project objective and outcome level indicators:

OBJECTIVE #1. The number of people/beneficiaries with access to improved flood and drought management (disaggregated by gender).

1.3. Number of vulnerability maps based on climate change models, spatial models and hydrological models produced for each of the four targeted provinces.

1.4. Type, amount and quality of EWS equipment provided to communities in four targeted provinces.

2.1. Climate change adaptation toolkit developed.

4.1. Number of knowledge products on climate change adaptation and community resilience generated and disseminated.

4.3. Number of public service training programmes in Afghanistan integrating international and local-level knowledge including the findings from research, interventions, and lesson learned from this project.

4. CONSULTATIONS WITH LOCAL COMMUNITIES AT THE PROVINCIAL LEVEL

Data collected from consultations with 30 local communities in Badakhshan, Balkh, Bamyan, and Daikundi provinces was used in the determination of baseline values for the following project objective and outcome level indicators:

3.1. Number of households with access to efficient water management technologies (including drip irrigation, water storage systems and water canals) for flood and drought management (disaggregated by gender).

3.2. The number of households and total agricultural area (ha) where agricultural management techniques adapted to intensive and prolonged droughts are practiced. Such activities include use of drought-tolerant crop varieties, diversification of crops, use of climate change-adapted cultivation practices and maintenance of seed banks.

3.3. Area (ha) of flood-mitigating infrastructure implemented in rural and peri-urban areas.

In addition, these 30 local community consultations yielded additional qualitative data for the identification of project and indicator baseline values on communities' socio-political structures, livelihoods, modes of production, vulnerability to natural hazards, perceptions of historical climate variations, and prioritization of environmental challenges.

See Annex 3 for a list of all local communities consulted with at the provincial level, and Annex 7 for a sample village consultation summary sheet template.

5. ORIGINAL AND RECOMMENDED PROJECT INDICATORS, BASELINES, AND TARGETS

	ORIGINAL	RECOMMENDED	EXPLANATION
	PROJECT OBJECTIVE: **"To increase the resilience of vulnerable communities and build capacity of local and national instutitons to address climate change risks."**		
INDICATOR	**1.** The percentage change in vulnerability of men and women living in the identified priority sites to climate change risks on the availability of water for productive and domestic uses.	**1.** The percentage of households with access to flood and drought management (disaggregated by gender).	This objective-level indicator was revised due to complications with conducting the VRA at all project sites resulting from Afghanistan's complex security situation and political instability related to national presidential elections. This indicator (and the VRA) has therefore been substituted for an established AMAT indicator. Moreover, as nearly all field-level interventions are related to flood and drought, the new recommended indicator will still facilitate household level gender-disaggregated data collection in all four target provinces that have gained access to improved flood and drought management technologies and/or techniques as a result of this project.
BASELINE	The baseline will be determined in the identified priority sites during the inception phase through a VRA.	In all 4 target provinces, 0% of the population have access to flood and drought management technologies or techniques.	
TARGET	Midterm: A %20 increase in the VRA scores. Final: %50 increase in the VRA scores.	a) Mid-way through the project, 20% of households in the intervention sites will have access to improved flood and drought management technology or techniques. b) By the end of the project, 50% of households in the intervention sites will have access to improved flood and drought management technology or techniques.	
INDICATOR	**2.** Number of national and sectoral policy and strategy documents revised/or developed to include climate change.	**2.** Number of national and sectoral policy and strategy documents revised/ developed to increase government capacity to adapt to climate change.	The original indicator and targets have been retained, but wording has been altered slightly to make them more specific and measurable.
BASELINE	There is no national climate change policy, and sectoral policies and strategies do not make any significant mention of climate change.	Afghanistan has drafted a National Climate Change Strategy (pending approval), and has completed its NCSA and NAPA in 2009. Other sectoral policies/ strategies do not make any significant mention of climate change.	
TARGET	By the end of the project, at least: 1) one national climate change policy developed; 2) one sectoral policy or strategy document is revised.	By the end of the project, at least: • One (1) national climate change strategy developed; • One (1) sectoral policy or strategy document revised.	

	ORIGINAL	RECOMMENDED	EXPLANATION
	PROJECT OBJECTIVE: **"To increase the resilience of vulnerable communities and build capacity of local and national instutitons to address climate change risks."**		
INDICATOR	**3.** Number of national and local experts trained to address climate change and integrate it into national planning.	**3.** Government and national experts have increased knowledge and capacity on technical climate change adaptation themes.	The original indicator has been retained, but wording has been altered to make it more specific and time-bound, as well as better reflective of capacity and knowledge gained through trainings and capacity-building activities. Likewise, the end-of-project target has been revised to make the wording more specific, measurable, and time-bound.
BASELINE	There are currently no experts or staff trained to integrate climate change into national planning.	Two staff from NEPA and two staff from AMA have received introductory training on climate change, but not on technical adaptation themes.	
TARGET	At least 1 member of staff in each relevant government agency (MRRD, MEW, NEPA, MAIL, ANDMA) trained.	By the end of the project, at least six (6) government staff (one (1) staff member in each relevant government agency - MRRD, MEW, NEPA, MAIL, ANDMA, and AMA) trained to develop adaptation plans, and build sustainable economic activities.	

	ORIGINAL	RECOMMENDED	EXPLANATION
	Component 1: Climate change risk assessment, monitoring and forecasting information.		
	Outcome 1: Increased capacity and knowledge base for assessment, monitoring, and forecasting of climate change-induced risks to water in Afghanistan.		
INDICATOR	**1.1.** Number of climate change risk assessment training events undertaken, and number of staff from relevant agencies trained in the skills necessary for climate change risk assessments.	**1.1.** Number of staff from relevant agencies trained in specific skills needed for climate change risk assessment.	This indicator was revised to make it more specific. The original indicator measured both the number of trainings and the number of staff trained. Considering that the purpose of trainings is to build the capacity of participants, the number of trainings delivered is less relevant than the number of staff trained. Thus, the recommended indicator simplifies reporting by only measuring the number of staff from relevant agencies trained in specific skills needed for climate change risk assessment. Likewise, the end-of-project targets have been revised, including the removal of "a functioning unit within AMA or MAIL is capable of undertaking climate change risk assessments" and insertions of "Two (2) representatives from NEPA, MAIL, MRRD, MEW, ANDMA, and AMA trained on climate change risk assessment." This target was replaced because both the original and recommended indicators only measure the number of trainings/workshops and staff trained rather than structural changes within AMA and MAIL.
BASELINE	No training in forecasting, analysis and climate risk response has been undertaken.	There are currently no government staff or national experts trained on climate change risk assessments; however, two staff from NEPA and two staff from AMA have attended introductory training courses on climate change.	
TARGET	By the end of project: • At least one (1) national training workshop and five regional training workshops have been completed. • A functioning unit within AMA or MAIL is capable of undertaking climate risk assessments (at least 5 individuals).	By the end of the project, at least: • One (1) national training workshop completed and five (5) regional training workshops completed. • Twelve (12) government representatives (two (2) staff members from NEPA, MAIL, MRRD, MEW, ANDMA, and AMA) trained on climate change risk assessment.	

	ORIGINAL	RECOMMENDED	EXPLANATION
	Component 1: Climate change risk assessment, monitoring and forecasting information.		
	Outcome 1: Increased capacity and knowledge base for assessment, monitoring, and forecasting of climate change-induced risks to water in Afghanistan.		
INDICATOR	**1.2.** Number of staff from relevant agencies trained in specific skills needed for climate change EWS.	**1.2.** Number of staff from relevant agencies trained in specific skills needed for climate change EWS.	No changes have been made to the indicator. The original target has also been retained, but wording altered slightly to make it more time-bound.
BASELINE	None.	There are currently no government staff or national experts trained on climate change EWS, however some staff from NEPA and AMA have attended introductory training courses on climate change.	
TARGET	At least 2 representatives of the following agencies: AMA; ANDMA; MAIL and MEW trained in specific skills needed for a climate change EWS.	By the end of the project, at least eight (8) government representatives (two (2) each from AMA, ANDMA, MAIL, and MEW) trained in specific skills needed for a climate change EWS.	
INDICATOR	**1.3.** Vulnerability maps based on regional climate change models, spatial models and hydrological models produced.	**1.3.** Number of vulnerability maps based on climate change models, spatial models and hydrological models produced for each of the four targeted provinces.	The original indicator and target have been retained, but wording has been altered to make them more specific and measurable.
BASELINE	Vulnerability maps of climate change risks are not presently available.	Vulnerability maps of climate change risks in Afghanistan are not presently available.	
TARGET	By the end of the project, at least one (1) detailed vulnerability map produced for each of the 4 ecoregions in Afghanistan.	By the end of the project, at least four (4) detailed vulnerability maps produced (one for each of the four targeted provinces).	

	ORIGINAL	RECOMMENDED	EXPLANATION
	Component 1: Climate change risk assessment, monitoring and forecasting information.		
	Outcome 1: Increased capacity and knowledge base for assessment, monitoring, and forecasting of climate change-induced risks to water in Afghanistan.		
INDICATOR	**1.4.** Type, amount and quality of EWS equipment provided to communities in trial areas.	**1.4.** Type, amount and quality of EWS equipment provided to communities in four targeted provinces.	The original indicator and target have been retained, but wording has been altered to make them more specific.
BASELINE	None.	At present, communities in the four targeted provinces do not have any climate change EWS equipment available to them.	
TARGET	By the end of the project, all required equipment has been distributed to communities in trial areas.	By the end of the project, all required equipment[14] has been distributed and installed in communities in trial areas.	
INDICATOR	**1.5.** SOPs for EWS designed, tested, and integrated into ANDMA structures.	**1.5.** Number of SOPs for EWS designed, tested, and integrated into ANDMA structures.	The original indicator and targets have been retained, but wording has been altered to make them more specific and measurable.
BASELINE	No climate EWS exists in Afghanistan.	At present, no climate change EWS SOPs exist in Afghanistan (ANDMA).	
TARGET	Midterm: SOPs for an EWS developed. Final: A functioning EWS trialed in the priority project areas.	a) Midway through the project, draft SOPs for EWS developed. b) By the end of the project, functioning EWSs established in the four target provinces.	

[14] Type of required equipment to facilitate EWS delivery to communities will be developed during the development of the SOPs for the EWS.

	ORIGINAL	RECOMMENDED	EXPLANATION
	Component 2: Climate change adaptation and response strategies.		
	Outcome 2: Climate change risks integrated into relevant policies, plans, and programmes.		
INDICATOR	**2.1.** Climate change adaptation toolkit developed.	**2.1.** Climate change adaptation toolkit developed.	No changes were made to the indicator. The original target has been retained, but wording has been altered to make it more specific, measurable, relevant, and time-bound.
BASELINE	No climate change adaptation toolkit has been developed for Afghanistan.	No climate change adaptation toolkit has been previously developed for Afghanistan at the national level.	
TARGET	A comprehensive adaptation toolkit developed.	By the end of the project, a comprehensive adaptation toolkit combining international and local-level knowledge including the findings from research, interventions, and lesson learned from this project and other adaptation project developed.	
INDICATOR	**2.2.** Climate change adaptation policy for Afghanistan developed.	**2.2.** Climate change adaptation policy for Afghanistan developed.	No changes have been made to the indicator. The original target has been retained, but wording has been altered to make it more specific, measurable, relevant, and time-bound.
BASELINE	No climate change policy has been developed for Afghanistan.	No climate change adaptation policy has been developed for Afghanistan.	
TARGET	A climate change policy including adaptation and mitigation approaches developed	By the end of the project, a climate change policy developed (including adaptation plans, sustainable economic activities, development, strategies, and measures to mitigate the effects of climate change).	

	ORIGINAL	RECOMMENDED	EXPLANATION
INDICATOR	**2.3.** Relevant sectoral policy and strategy documents revised to include climate change.	**2.3.** Relevant sectoral policy and strategy documents revised to include climate change.	No changes have been made to the indicator. The original target has been retained, but the target has been disaggregated into mid- and end-term measurements, and revised to reduce overlap with Objective Indicator #2.
BASELINE	Sectoral policy and strategy do not make any significant mention of climate change.	Sectoral policies and strategies do not make any significant mention of climate change.	
TARGET	At least one sectoral policy or strategy document is revised.	a) Midway through the project sectoral policies and strategies assessed for opportunities for inclusion of climate change. b) By the end of the project, recommended revision of at least one (1) sectoral policy or strategy document to include climate change drafted.	
	Component 3: Practices for water resources and watershed management piloted and tested in selected project sites.		
	Objective 3: Reduction of climate change vulnerability in the selected project sites through local institutional capacity building and concrete interventions for improved water use.		
INDICATOR	**3.1.** Change in the number of households with access to efficient water management technologies (including drip irrigation, water storage systems and water canals) for flood and drought management (disaggregated by gender).	**3.1.** The number of households with access to efficient water management technologies (including drip irrigation, water storage systems and water canals) for flood and drought management (disaggregated by gender).	The original indicator and targets have been retained, but wording has been altered for clarity. Specifically, the measurement of "change" has been removed because the intended unit of measurement for this indicator is the number of households, not change among number of households, which is further reflected in the targets for this indicator.
BASELINE	The baseline will be determined in the identified priority sites through surveys in the project inception phase.	Based on consultations with NEPA, MAIL, MEW, NGOs, and local communities in the target provinces, the only irrigation methods employed by local communities are surface and canal irrigation. No additional AMIT are used by local communities in the target provinces.	
TARGET	1a. At least 424 households with access to AMIT, or an increase in at least 42 hectares of micro-irrigated areas. 1b. At least 10,500m3 increased water storage capacity in check dams. 1c. At least three water storage impoundment dams constructed.	By the end of the project, at least: • 424 households have access to AMIT, or 42 hectares of micro-irrigated areas. • 10,500m3 increased water storage capacity in check dams. • Three (3) water storage impoundment dams constructed.	

	ORIGINAL	RECOMMENDED	EXPLANATION
	Component 3: Practices for water resources and watershed management piloted and tested in selected project sites.		
	Objective 3: Reduction of climate change vulnerability in the selected project sites through local institutional capacity building and concrete interventions for improved water use.		
INDICATOR	**3.2**. Percentage change in the number of households and total agricultural area where agricultural management techniques adapted to intensive and prolonged droughts are practiced. Such activities include use of drought-tolerant crop varieties, diversification of crops, use of climate change-adapted cultivation practices and maintenance of seed banks.	**3.2.** Total agricultural area (ha) where agricultural management techniques adapted to intensive and prolonged droughts are practiced. Such activities include use of drought-tolerant crop varieties, diversification of crops, use of climate change-adapted cultivation practices and maintenance of seed banks.	This indicator was revised to make it more specific and achievable by removing the phrase "percentage change in the number of households" to focus this indicator on the total land area where agricultural management techniques adapted to intensive and prolonged droughts will be implemented. Likewise, the end-of-project targets have been revised to make them more specific and attainable, as well as reflect the key task of identifying and promoting drought resilient practices in Balkh and Badakhshan provinces. Thus, an additional target of "one (1) dryland agriculture research and education station established in Balkh province" has been inserted. The other three original targets have been revised to reflect more realistic figures based on local communities' available land and capacity to implement community-based interventions at project sites without negatively impacting their rural livelihoods.
BASELINE	The baseline will be determined in the identified priority sites through surveys in the project inception phase.	Based on extensive field visits to all four target provinces, none of the areas where this project will work are using the specific agricultural management techniques adapted to intensive and prolonged droughts described in this indicator. Nevertheless, in Balkh province the organizations ICARDA and JDA Int'l are researching and developing drought-tolerant crop varieties and maintaining seed banks.	
TARGET	2a. At least 400 ha of agricultural land planted with drought-tolerant crop varieties for 3 successive seasons. 2b. At least 400 ha of micro-catchment techniques such as catchment ponds, contour bunds and strip-crops. 2c. At least 200 ha of degraded watershed slops restored with multi- use tree species.	By the end of the project, at least: • One (1) dryland research and education station established. • 200 ha of agricultural land planted with drought-tolerant crop varieties for 3 successive seasons. • 200 ha of micro-catchment techniques such as catchment ponds, contour bunds, and strip-crops. • 100 ha of degraded watershed slopes restored with multi-use tree species and native rangeland species.	

	ORIGINAL	RECOMMENDED	EXPLANATION
	Component 3: Practices for water resources and watershed management piloted and tested in selected project sites.		
	Objective 3: Reduction of climate change vulnerability in the selected project sites through local institutional capacity building and concrete interventions for improved water use.		
INDICATOR	**3.3.** Area (ha) of flood-mitigating infrastructure implemented in rural and peri-urban areas.	**3.3.** Area (ha) of flood-mitigating infrastructure implemented in rural and peri-urban areas.	No changes have been made to the content of this indicator; however, it has been renumbered as "3.3" because in the original Result Framework this indicator and the following indicator (% survivorship of newly planted multiple-benefit tree and shrub species 24 months after planting date) were linked to each other as parts one and two. As revised, these two indicators are now independent. The original targets have also been retained, but wording has been altered for clarity.
BASELINE	Zero (0) ha	At present, zero (0) ha of flood-mitigating infrastructure has been implemented in rural and peri-urban areas.	
TARGET	3.3a. At least 120 ha newly planted with multiple-benefit species (to enhance ecosystem services such as water catchment, soil stabilisation, and flood protection). 3.1b. At least 140 hectares of low-cost water barriers and catchment structures for each of 3 villages (these targets are likely to be re-assessed in light of the baseline).	By the end of the project, at least: • 120 ha of rural areas newly planted with species that provide ecosystem services such as water catchment, soil stabilisation, and flood protection. • 140 ha of low-cost water barriers and catchment structures for each of 3 peri-urban villages in the target province of Daikundi.	
INDICATOR	**3.4.** Percentage (%) survivorship of newly planted multiple-benefit tree and shrub species 24 months after planting date.	**3.4.** Percentage (%) survivorship of newly planted tree and shrub species 24 months after planting date.	No changes have been made to the content of this indicator; however, it has been renumbered as "3.4" because in the original Result Framework this indicator and the preceding indicator (Area (ha) of flood-mitigating infrastructure implemented in rural and peri-urban areas) were linked to each other as parts one and two. As revised, these two indicators are now independent. The original target has also been retained, but the rate of survival for tree and shrub species has been reduced to 60% to be more realistic, and wording has been altered to make it more specific, measurable, and time-bound.
BASELINE	N/A	N/A – the baseline figure for this indicator will be calculated as a % of survivorship of total tree and shrub species 24 months after planting.	
TARGET	At least 80% survival for planted multiple-benefit tree and shrub species.	By the end of the project, at least an average of 60% survival for planted tree and shrub species across all four targeted provinces.	

	ORIGINAL	RECOMMENDED	EXPLANATION
	Component 4: Adaptive learning and dissemination of lessons learned and best practices.		
	Outcome 4: Increased knowledge of good practices on increasing resilience to climate change-induced risks to water resources.		
INDICATOR	**4.1.** Number of knowledge products generated and disseminated.	**4.1.** Number of knowledge products on climate change adaptation and resilience generated and disseminated.	The original indicator has been retained, but wording has been altered to make it more specific. The original targets have been retained, but wording has been altered to make them more specific, measurable, relevant, and time-bound.
BASELINE	None.	To date, less than ten knowledge products on climate change in Afghanistan have been produced by government/NGOs, including: 1 socioeconomic study (2009), 1 NGO backgrounder (2012), 3 NEPA publications – INC (2012), NCSA (2009) and NAPA (2009), and 1 unpublished thesis (2011).	
TARGET	Midterm: A project website is operational and is regularly updated with project information. Final: Lessons learned are distributed: 1) in hard copy (e.g. pamphlets, briefing notes, newsletters, booklets etc); 2) electronically via the project website and Global Adaptation Network (GAN); and 3) media (radio, TV).	a) Mid-way through the project, an LDCF-1 project website is operational and regularly updated with project information. b) By the end of the project, lessons learned are distributed in at least three (3) different forms of media (1) hard copy: pamphlets, briefing notes, newsletters, booklets, etc; 2) soft copy: via the project website, APAN, and GAN; and 3) other media: radio, TV, etc.)	

	ORIGINAL	RECOMMENDED	EXPLANATION
	Component 4: Adaptive learning and dissemination of lessons learned and best practices.		
	Outcome 4: Increased knowledge of good practices on increasing resilience to climate change-induced risks to water resources.		
INDICATOR	**4.2.** National policy workshop on climate change adaptation organised.	**4.2.** National policy workshop on adaptation to climate change, development of sustainable economic activities and mitigation of the effects of climate change organised.	The original indicator and targets have been retained, but wording has been altered to make them more specific, measurable, relevant, and time-bound.
BASELINE	No national policy workshop on climate change has been organised in Afghanistan.	To date, no national policy workshop on adaptation to climate change has ever been held in Afghanistan.	
TARGET	At least one national policy workshop on climate change adaptation organised.	By the end of the project, at least one national policy workshop on climate change adaptation organised.	
INDICATOR	**4.3.** Number of public service training programmes in Afghanistan integrating knowledge generated from project lessons learned.	**4.3.** Number of public service training programmes in Afghanistan integrating international and local-level knowledge including the findings from research, interventions, and lesson learned from this project.	The original indicator and target have been retained, but wording has been altered to make them more specific, relevant, and time-bound.
BASELINE	None.	None; In Kabul there is only one institute named Civil Service Institute, which is under Independent Administrative reform and civil service commission, but does not offer any trainings relevant to climate change adaptation.	
TARGET	At least one public service training programme in Afghanistan based on project lessons, generated.	By the end of the project, at least one public service training program in Afghanistan established on project lessons learned and generated.	

6. UPDATED RESULTS FRAMEWORK

Indicator	Baseline	Targets	Means of verification	Responsibility for data collection
PROJECT OBJECTIVE: **"To increase the resilience of vulnerable communities and build capacity of local and national instutitons to address climate change risks."**				
1. The percentage of households with access to flood and drought management (disaggregated by gender).	In all 4 target provinces, 0% of the population have access to improved flood and drought management technologies or techniques.	a) Mid-way through the project, 20% of households in the intervention sites will have access to improved flood and drought management technology or techniques. b) By the end of the project, 50% of households in the intervention sites will have access to improved flood and drought management technology or techniques.	Gender-sensitive field surveys and base-line, mid-term, and final VRA sessions conducted with local stakeholders in the identified priority sites.	Project staff (M&E Specialist) & NEPA provincial focal points
2. Number of national and sectoral policy and strategy documents revised/ developed to increase government capacity to adapt to climate change.	Afghanistan has drafted a National Climate Change Strategy (pending approval), and has completed its NCSA and NAPA in 2009. Other sectoral policies/ strategies do not make any significant mention of climate change.	By the end of the project, at least: • One (1) national climate change strategy developed; • One (1) sectoral policy or strategy document revised.	Review of available national policy and strategy documents; interviews with NEPA, MAIL, MRRD, MEW, ANDMA & AMA staff.	Project staff (M&E Specialist)
3. Government and national experts have increased knowledge and capacity on technical climate change adaptation themes.	Two staff from NEPA and two staff from AMA have received introductory training on climate change, but not on technical adaptation themes.	By the end of the project, at least six (6) government staff (one (1) staff member in each relevant government agency - MRRD, MEW, NEPA, MAIL, ANDMA, and AMA) trained to develop adaptation plans, and build sustainable economic activities.	Review of available national policy and strategy documents; interviews with NEPA, MAIL, MRRD, MEW, ANDMA, and AMA staff.	Project staff (M&E Specialist)

Indicator	Baseline	Targets	Means of verification	Responsibility for data collection
Component 1: Climate change risk assessment, monitoring and forecasting information.				
Outcome 1: Increased capacity and knowledge base for assessment, monitoring, and forecasting of climate change-induced risks to water in Afghanistan.				
1.1. Number of staff from relevant agencies trained in specific skills needed for climate change risk assessment.	There are currently no government staff or national experts trained on climate change risk assessments; however, two staff from NEPA and two staff from AMA have attended introductory training courses on climate change.	By the end of the project, at least: • One (1) national training workshop completed and five (5) regional training workshops completed. • Twelve (12) government representatives (two (2) staff members from NEPA, MAIL, MRRD, MEW, ANDMA, and AMA) trained on climate change risk assessment.	Review of available national policy and strategy documents; interviews with NEPA, MAIL, MRRD, MEW, ANDMA & AMA staff.	Project staff (M&E Specialist)
1.2. Number of staff from relevant agencies trained in specific skills needed for climate change EWS.	One (1) national training workshop completed and five (5) regional training workshops completed.	By the end of the project, at least: • One (1) national climate change strategy developed; • One (1) sectoral policy or strategy document revised.	Review of available national policy and strategy documents; interviews with NEPA, MAIL, MRRD, MEW, ANDMA & AMA staff.	Project staff (M&E Specialist)
1.3. Number of vulnerability maps based on climate change models, spatial models and hydrological models produced for each of the four targeted provinces.	Vulnerability maps of climate change risks in Afghanistan are not presently available.	By the end of the project, at least four (4) detailed vulnerability maps produced (one for each of the four targeted provinces).	ARP vulnerability maps; consultations with mapping/geo-spatial stakeholders (IMMAP, etc.)	Project staff (NPC & CAS)
1.4. Type, amount and quality of EWS equipment provided to communities in four targeted provinces.	At present, communities in the four targeted provinces do not have any climate change EWS equipment available to them.	By the end of the project, all required equipment[15] has been distributed and installed in communities in trial areas.	Field visits (surveys/ interviews) with local communities; con-sultations with NEPA, MRRD, MAIL, MEW, ANDMA, AMA at central and provincial levels.	Project staff (M&E Specialist, NPC, & CAS)

[15] Type of required equipment to facilitate EWS delivery to communities will be developed during the development of the SOPs for the EWS.

Indicator	Baseline	Targets	Means of verification	Responsibility for data collection
1.5. Number of SOPs for EWS designed, tested, and integrated into ANDMA structures.	At present, no climate change EWS SOPs exist in Afghanistan (ANDMA).	a) Midway through the project, draft SOPs for EWS developed. b) By the end of the project, a functioning EWSs established in the four target provinces.	Consultations with ANDMA (Mr. Qazi, Head of International Affairs Department).	Project staff (M&E Specialist, NPC, & CAS)
Component 2: Climate change adaptation and response strategies.				
Outcome 2: Climate change risks integrated into relevant policies, plans, and programmes.				
2.1. Climate change adaptation toolkit developed.	No climate change adaptation toolkit has been previously developed for Afghanistan at the national level.	By the end of the project, a comprehensive adaptation toolkit combining international and local-level knowledge including the findings from research, interventions, and lesson learned from this project and other adaptation project developed.	The existence of the climate change adaptation toolkit itself.	Project staff (NTA)
2.2. Climate change adaptation policy for Afghanistan developed.	No climate change adaptation policy has been developed for Afghanistan.	By the end of the project, a climate change policy developed (including adaptation plans, sustainable economic activities, development, strategies, and measures to mitigate the effects of climate change).	Existence of the climate change adaptation policy itself.	Project staff (M&E Specialist & NEPA focal point)
2.3. Relevant sectoral policy and strategy documents revised to include climate change.	Sectoral policies and strategies do not make any significant mention of climate change.	a) Midway through the project sectoral policies and strategies assessed for opportunities for inclusion of climate change. b) By the end of the project, recommended revision of at least one (1) sectoral policy or strategy document to include climate change drafted.	Assessments of sectoral policies and strategies, and revised policy/strategy document itself.	Project staff (M&E Specialist & NEPA focal point)

Indicator	Baseline	Targets	Means of verification	Responsibility for data collection
Component 3: Practices for water resources and watershed management piloted and tested in selected project sites.				
Objective 3: Reduction of climate change vulnerability in the selected project sites through local institutional capacity building and concrete interventions for improved water use.				
3.1. The number of households with access to efficient water management technologies (including drip irrigation, water storage systems and water canals) for flood and drought management (disaggregated by gender).	Based on consultations with NEPA, MAIL, MEW, NGOs, and local communities in the target provinces, the only irrigation methods employed by local communities are surface and canal irrigation. No additional AMIT are used by local communities in the target provinces.	By the end of the project, at least: • 424 households have access to AMIT, or 42 hectares of micro-irrigated areas. • 10,500m3 increased water storage capacity in check dams. • Three (3) water storage impoundment dams constructed.	Gender-sensitive household surveys undertaken within identified priority sites in four targeted provinces.	Project staff (M&E Specialist & NEPA provincial focal points)
3.2. Total agricultural area (ha) where agricultural management techniques adapted to intensive and prolonged droughts are practiced. Such activities include use of drought-tolerant crop varieties, diversification of crops, use of climate change-adapted cultivation practices and maintenance of seed banks.	Based on extensive field visits to all four target provinces, none of the areas where this project will work are using the specific agricultural management techniques adapted to intensive and prolonged droughts described in this indicator. Nevertheless, in Balkh province the organizations ICARDA and JDA Int'l are researching and developing drought-tolerant crop varieties and maintaining seed banks.	By the end of the project, at least: • One (1) dryland research and education station established. • 200 ha of agricultural land planted with drought-tolerant crop varieties for 3 successive seasons. • 200 ha of micro-catchment techniques such as catchment ponds, contour bunds, and strip-crops. • 100 ha of degraded watershed slopes restored with multi-use tree species and native rangeland species.	Gender-sensitive household surveys undertaken within identified priority sites in the four target provinces.	Project staff (M&E Specialist & NEPA provincial focal points)

Indicator	Baseline	Targets	Means of verification	Responsibility for data collection
3.3. Area (ha) of flood-mitigating infrastructure implemented in rural and peri-urban areas.	At present, zero (0) ha of flood-mitigating infrastructure has been implemented in rural and peri-urban areas.	By the end of the project, at least: • 120 ha of rural areas newly planted with species that provide ecosystem services such as water catchment, soil stabilisation, and flood protection. • 140 ha of low-cost water barriers and catchment structures for each of 3 peri-urban villages in the target province of Daikundi.	Field survey techniques, maps, GPS coordinates of rehabilitated areas, etc.	Project staff (M&E Specialist & NEPA provincial focal points)
3.4. Percentage (%) survivorship of newly planted tree and shrub species 24 months after planting date.	N/A – the baseline figure for this indicator will be calculated as a % of survivorship of total tree and shrub species 24 months after planting.	By the end of the project, at least an average of 60% survival for planted tree and shrub species across all four targeted provinces.	Field survey techniques, maps, GPS coordinates of rehabilitated areas, etc.	Project staff (M&E Specialist & NEPA provincial focal points)
Component 4: Adaptive learning and dissemination of lessons learned and best practices.				
Outcome 4: Increased knowledge of good practices on increasing resilience to climate change-induced risks to water resources.				
4.1. Number of knowledge products on climate change adaptation and resilience generated and disseminated.	To date, less than ten knowledge products on climate change in Afghanistan have been produced by government/ NGOs, including: 1 socioeconomic study (2009), 1 NGO backgrounder (2012), 3 NEPA publications – INC (2012), NCSA (2009) and NAPA (2009), and 1 unpublished thesis (2011).	a) Mid-way through the project, an LDCF-1 project website is operational and regularly updated with project information. b) By the end of the project, lessons learned are distributed in at least three (3) different forms of media (1) hard copy: pamphlets, briefing notes, newsletters, booklets, etc; 2) soft copy: via the project website, APAN, and GAN; and 3) other media: radio, TV, etc.)	Website established and functioning; media produced (hard/ soft copy reports, pamphlets, presentations, radio/TV/internet media, etc.)	Project staff (M&E Specialist, NPC, & TAO)

Indicator	Baseline	Targets	Means of verification	Responsibility for data collection
4.2. National policy workshop on adaptation to climate change, development of sustainable economic activities and mitigation of the effects of climate change organised.	To date, no national policy workshop on adaptation to climate change has ever been held in Afghanistan.	By the end of the project, at least one national policy workshop on climate change adaptation organised.	Workshop reports, including attendance sheet.	UNEP & NEPA
4.3. Number of public service training programmes in Afghanistan integrating international and local-level knowledge including the findings from research, interventions, and lesson learned from this project.	None; In Kabul there is only one institute named Civil Service Institute, which is under Independent Administrative reform and civil service commission, but does not offer any trainings relevant to climate change adaptation.	By the end of the project, at least one public service training program in Afghanistan established on project lessons learned and generated.	Training tools with integrated knowledge from project lessons learned.	Project staff (M&E Specialist, NPC, & TAO)

7. LDCF PROJECT MONITORING AND EVALUATION STRATEGY

STRATEGY FOR DATA COLLECTION AND MONITORING	Responsible party	Indicators
Continuous Monitoring		
Specialist Reports All specialist reports received should be safely stored in project archives by the National Project Coordinator (NPC). All specialist reports received should be distributed to the necessary parties. The NPC and Climate Adaptation Specialist (CAS) should ensure that all specialist reports are submitted in a timely manner. The NPC and CAS should review each specialist report to ensure that it contains the required information. **The following specialist reports must be produced:** 1 x Report on institutional mapping and training needs assessment (1.1.1) 1 x Report on strategic plan/data network for climate information management and exchange (1.1.2) 1 x Report on regional partnerships developed and planned to facilitate regular exchanges of data for climate change risk assessment, prediction, and monitoring (1.1.3) 1 x Report on the identification of climate models and climate change vulnerability tools (1.1.5) 1 x Report on the current state of EWS and reporting systems (1.2.1) 1 x Report identifying models and SOPs for EWS (1.2.3) 1 x Report on establishment of EWS in 4 provinces, including lessons learned and best practices (1.2.4) 1 x Policy and technical report on climate change risks per sector (1.3.1) 1 x Report on survey of international tools and methods for identification, evaluation, and mainstreaming of adaptation measures (2.1.1) 1 x Climate change adaptation toolkit (2.1.2) 1 x Report on effectiveness and knowledge base of current inter-ministerial climate change structure (2.2.1) 1 x Report on gap analysis of national development plan and policies to determine extent of inclusion of climate change risks (2.3.1) 1 x Report on dynamic systems modelling (2.3.2) 1 x Report on climate change adaptation strategy (2.3.3) 1 x Report on training needs assessment for government partners (2.4.1) 1 x Report on assessment of relevant tools for distribution of lessons learned and institutional knowledge (4.1.2) and regional knowledge exchange structures (4.2.1) 1 x Report identifying additional locations and interventions to achieve long-term adaptation goals (4.5.2)	International & National Consultants (EPIC, CAS, NTA, NPC)	Output 1.1. • 1.1.1 • 1.1.2 • 1.1.3 • 1.1.5 Output 1.2 • 1.2.1 • 1.2.2 • 1.2.3 • 1.2.4 Output 1.3 • 1.3.1 Output 2.1 • 2.1.1 • 2.1.2 Output 2.2 • 2.2.1 Output 2.3 • 2.3.1 • 2.3.2 • 2.3.3 Output 2.4 • 2.4.1 Output 4.1 • 4.1.2 Output 4.2 • 4.2.1 • 4.2.2 Output 4.5 • 4.5.2

STRATEGY FOR DATA COLLECTION AND MONITORING	Responsible party	Indicators
Continuous Monitoring		
Beneficiary Registers The beneficiaries will be regularly visited through the life of the project and will be asked for sharing their experiences, challenges, issues and lesson learnt, and to feed into additional research, reporting, and project monitoring on the status, impacts, benefits, etc. of community-based field interventions.	International & National Consultants	Output 3.1 • 3.1.1 • 1.2.3 • 3.1.3 • 3.1.4 • 3.1.5 Output 3.2 • 3.2.1 • 3.2.2 • 3.2.3 • 3.2.4 Output 3.3 • 3.3.1 Output 3.4 • 3.4.1 • 3.4.4
Training Workshop and Strategic Meeting Reports A report of each training event (workshop) held should be compiled. In addition, an attendance register including name, title, and gender of all trainees must be completed at each training event. In order to assess quality and impact of each training, a short post-training assessment should be completed to assess the knowledge gained by training participants.	International & National Consultants, Governmental Partners	Output 1.1 • 1.1.4 Output 1.3 • 1.3.2 Output 2.2 • 2.2.2 • 2.2.3 • 2.2.4 Output 2.4 • 2.4.2 Output 3.1 • 3.1.4 Output 3.2 • 3.2.5 Output 3.3 • 3.3.2 Output 3.4 • 3.4.2 • 3.4.3 Output 4.2 • 4.2.3 Output 4.4 • 4.4.3 Output 4.5 • 4.5.1

STRATEGY FOR DATA COLLECTION AND MONITORING	Responsible party	Indicators
Continuous Monitoring		
Awareness-raising Event Reports A report of each awareness-raising event (e.g., campaign, education initiative advocacy event, etc.) undertaken should be compiled. In addition, an attendance register including the names and gender of all attendees must be completed at each training event.	International & National Consultants, Governmental Partners	Output 2.3 • 2.3.4 Output 4.1 • 4.1.1 • 4.1.3 Output 4.2 • 4.2.3 Output 4.3 • 4.3.1 • 4.3.2 Output 4.4 • 4.4.1 • 4.4.2 • 4.4.4 Output 4.5 • 4.5.3
Mid-term Monitoring		
Field and Household Surveys Field surveys should be undertaken in each of the four target provinces to assess progress at the intervention sites at the mid-term of the project. During these field surveys, the project coordinator/government counterparts should visit project sites of project beneficiaries to confirm the implementation, use, and value of each intervention at the household-level. At least %5 of the total number of households at each target province intervention site should be interviewed. The household survey will replicate the baseline survey, and should be based on the revised results framework. In addition, during the mid-term field and household surveys all mid-term field-level targets will be assessed to see if they have or have not been reached.	International & National Consultants, Governmental Partners	Output 3.1 • 3.1.1 • 3.1.2 • 3.1.3 • 3.1.4 • 3.1.5 Output 3.2 • 3.2.1 • 3.2.2 • 3.2.3 • 3.2.4 • 3.2.5 Output 3.3 • 3.3.1 • 3.3.2 Output 3.4 • 3.4.1 • 3.4.2 • 3.4.3 • 3.4.4
Interviews with PMU The M&E Specialist and Climate Adaptation Specialist should interview the PMU to gather information on: i) project implementation status; ii) expenditure; and iii) employment contracts of PMU, Government Counterparts and National consultants; and iv) the web-based data portal.	CAS	Objectives 1, 2, and 3

STRATEGY FOR DATA COLLECTION AND MONITORING	Responsible party	Indicators
End of project Monitoring		
Field and Household Surveys Field surveys should be undertaken at each of the four target provinces during the last quarter of the project to assess progress at the intervention sites at the end of the project. During these field surveys, the project coordinator/government counterparts should visit field intervention sites in order to confirm the completion of all planned field interventions, including the numbers, size, quantity, area, impact, etc. of each intervention, as required, relevant, and defined in the Project Document and revised Results Framework. At least %5 of the total number of households at each target province intervention site should be interviewed. The household survey will replicate the baseline survey, and should be based on the revised results framework. In addition, during the mid-term field and household surveys all mid-term field-level targets will be assessed to see if they have or have not been reached.	M&E Expert, CAS, Socio-economist, international and national consultants, and governmental partners	Output 3.1 • 3.1.1 • 3.1.2 • 3.1.3 • 3.1.4 • 3.1.5 Output 3.2 • 3.2.1 • 3.2.2 • 3.2.3 • 3.2.4 • 3.2.5 Output 3.3 • 3.3.1 • 3.3.2 Output 3.4 • 3.4.1 • 3.4.2 • 3.4.3 • 3.4.4
GIS Mapping At the end of the project, GIS mapping of pilot test areas in the four target province should be undertaken to determine the total area that has been restored. GPS points collected during the field surveys will be used to complete this activity.	GIS Expert, M&E Expert, international and national consultants, and governmental partners	Output 3.1 • 3.1.1 • 3.1.2 • 3.1.3 • 3.1.4 • 3.1.5 Output 3.2 • 3.2.1 • 3.2.2 • 3.2.3 • 3.2.4 • 3.2.5 Output 3.3 • 3.3.1 • 3.3.2 Output 3.4 • 3.4.1 • 3.4.2 • 3.4.3 • 3.4.4
Policy Review Review relevant policies to determine if any revisions proposed by the LDCF-1 project have been incorporated.	International and national consultants, and governmental partners	Objectives 1 and 3 Output 1.3 • 1.3.1 • 1.3.2 Output 2.1 • 2.1.2 Output 2.2 • 2.2.2 • 2.2.3 • 2.2.4 Output 2.3 • 2.3.3 • 2.3.4

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ANNEX 1: GOVERNMENT REPRESENTATIVES INTERVIEWED

KABUL (NATIONAL LEVEL)					
#	**NAME**	**OFFICE**	**POSITION**	**TEL**	**EMAIL**
1	Mr. Allah Mohamad Faqiri	AMA	Deputy Director	+93799127909	N/A
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4	Mr. Homa Osmani	ANDMA	M&E Officer/NSP	N/A	h.osmani@nspafghanistan.org
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6	Mr. Mohammd Sayed Qazi	ANDMA	Director of International Affairs	+93708749971	msayedaziz@hotmail.com
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9	Mr. Hamaun Jalal	MAIL	Protection Area Officer	+93799386144	hamaun.jalal@mail.gov.af
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BADAKHSHAN PROVINCE					
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14	Mr. Mohammad Ishaq	ANDMA	Deputy Director	N/A	N/A
15	Mr. Abdul Mutalib,	MAIL	Manager of Greenery	+93794096522	N/A
16	Mr. Eng. Iraj	MAIL	Field Engineer	+93799754261	N/A
17	Mr. Mohammad Alem Alemi	MAIL	Director	+93799272961	N/A
18	Mr. Mohammad Rafi	MEW	Director	+93775091200	N/A
19	Mr. Pir Mohammad Yaftali	MRRD	Director	N/A	N/A
20	Mr. Abdus Salam Hafizi	Municipality	General Greenery Manager	N/A	N/A
21	Mr. Ghulam Nabi	NEPA	Director	+93796065503	N/A
22	Mr. Habibullah	NEPA	National Heritage Officer	+93799863946	N/A
23	Mr. Munawar Shah Akhgar,	PGO	Acting Governor	N/A	N/A

BALKH PROVINCE					
#	NAME	OFFICE	POSITION	TEL	EMAIL
24	Mr. Rahmatullah Zahed	ANDMA	Director	+93700703387	N/A
25	Mr. Kateb Shams	MAIL	Director	+93700215773	kateb_shams@yahoo.com
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27	Mr. Ghulam Nabi Khorami	NEPA	Provincial Director	+93799639141	N/A
28	Mr. Samim Khan	NEPA	Sustainability Dev. Manager	+93791500222	samim_ramin@hotmail.com
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30	Mr. Mohammad Zaher Wahdat	PGO	Deputy Governor	+932013110	N/A
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DAIKUNDI PROVINCE					
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41	Mr. Reza Sediqi	ANDMA	Director	+93774540200	N/A
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52	Mr. Rasool Mohammad	MRRD	Director	N/A	N/A
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56	Mr. Ali Zada	NEPA	Head of Planning	+93708287701	N/A
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ANNEX 2: KEY NON-GONVERNMENTAL ORGANIZATIONS AND STAKEHOLDERS CONSULTED AT PROVINCIAL LEVEL

BADAKHSHAN PROVINCE					
#	**NAME**	**OFFICE**	**POSITION**	**TEL**	**EMAIL**
1	Mr. Dost Mohammad Rokai	ACTED	Regional Program Manager	N/A	N/A
2	Mr. Sulaiman Khan	AfghanAid	Regional Program Manager	N/A	N/A
3	Mr. M. Afzali	AKF	NRM Expert	N/A	N/A
4	Mr. Ramin Faroreen	AKF	Program Officer	N/A	N/A
5	Ms. Azima Roya Javed	Concern	Programme Officer	N/A	N/A
6	Mr. Nooragha Azimi	FOCUS	Emergency Preparedness Officer	N/A	N/A
7	Mr.Habibullah Nasiri	GIZ-EMERG	Project Manager	N/A	N/A
8	Mr. Behzad	NAC	Regional Manager	N/A	N/A
9	Mr. Najibullah Kohi	NAC	Senior HR Officer	N/A	N/A
10	Mr. Terje M. Watterdal	NAC	Country Director	N/A	N/A
11	Mr. Omar Arian	WFP	Program Officer	N/A	N/A
12	Mr. Monir Hassanzai	UNAMA	Administration Officer	N/A	hassanzai@un.org
BALKH PROVINCE					
#	**NAME**	**OFFICE**	**POSITION**	**TEL**	**EMAIL**
13	**Mr. Abdul Wahed**	**AAIP**	Agriculture & Seed Expert	+93700506421	abdul.wahed186@gmail.com
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15	Mr. Sayed Honaryar	ACTED	M&E/Research Officer	N/A	N/A
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25	Dr. Juma Gol Amin	UNAMA	Civil Affairs Officer	N/A	N/A
26	Mr. Teimur Murshidy	WFP	Program Officer	+93700503859	teimur.murshidy@wfp.org
27	Zabiullah Ansary	WFP	Programme Assistant	N/A	Zabiullah.ansari@wfp.org

BAMYAN PROVINCE

#	NAME	OFFICE	POSITION	TEL	EMAIL
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DAYKUNDI PROVINCE

#	NAME	OFFICE	POSITION	TEL	EMAIL
33	Mr. Abdul Hussain	ACF	OIC	N/A	N/A
34	Mr. M. Hussain Tamaddon	Chemonics	Municipal Program Coordinator	N/A	N/A
35	Mr. Ali Jan	NSP	NSP Director	N/A	N/A
36	Mr. Abdul Hussain Wafay	Oxfam GB	OIC	N/A	N/A
37	Mr. M. Roshan	Oxfam GB	Project Coordinator	708294204	maroshan@oxfam.org.uk
38	Mr. M. Kumail	UNDP	ASGP Director	N/A	N/A

ANNEX 3: LOCAL COMMUNITIES CONSULTED AT PROVINCIAL LEVEL

#	PROVINCE	DISTRICT	VILLAGE	FOCAL POINT	TELEPHONE
1	Badakhshan	Argo	Argo Village (district center)	N/A	N/A
2	Badakhshan	Faizabad	Cheshmebied Village	Mohammad Sardar Khahn	+93707484675
3	Badakhshan	Faizabad	Gazan Village	Abdul Hakim	N/A
4	Badakhshan	Faizabad	Rabat Village	Mohammad Nazir	N/A
5	Balkh	Dehdadi	Dehdadi Village	N/A	N/A
6	Balkh	Khulm	Jiran Tazi Village	N/A	N/A
7	Bamyan	Bamyan	Sar-e Ahangaran-1 Village	Mr. Hamid Ahmadi	+93771176898
8	Bamyan	Bamyan	Sar-e Ahangaran-2 Village	Mr. Amirkhan Ahmadi	+93770009723
9	Bamyan	Bamyan	Alibeg Village	Mr. Jumakhan Esmati	+93795612722
10	Bamyan	Bamyan	Burghason Village	Mr. Mohammad Bashir Ahmadi	+93794021040
11	Bamyan	Bamyan	Sar-e Chapdara (Geru & Petab)	Mr. Sayed Hadi Farahmand	+93799345517
12	Bamyan	Bamyan	Chapqolak/Qabr-e Zaghak Villages	Mr. Abdulrahim Haydari	+93798087865
13	Bamyan	Bamyan	Jandargal Village	Mr. Mohammad Jawad Jawahiri	+93785599778
14	Bamyan	Bamyan	Jawkar Village	Mr. Rahimi Abdulrahim	+93795211420
15	Bamyan	Bamyan	Jawzari Village	Mr. Abdul Hamid	+93797319826
16	Bamyan	Bamyan	Kamati Village	Mr. Haji Hossain Mohgammadi	+93798973522
17	Bamyan	Bamyan	Khushkak-e Bala Village	Mr. Shah Abas Hasani	+93794539740
18	Bamyan	Bamyan	Nawrozi Village	Mr. Mohsin Naziri	+93783039099
19	Bamyan	Bamyan	Orgash Village	Mr. Qurban Ali	+93777549774
20	Bamyan	Bamyan	Sar-e Qazan Village	Mr. Mohammad Nabi Tabish	+93775590406
21	Bamyan	Bamyan	Seyalayak Village	Mr. Mohammad Mohammadi	+93781577941
22	Bamyan	Bamyan	Sar-e Somara Village	Mr. Mohammad Reza Hossaini	+93794111413
23	Bamyan	Bamyan	Tajik Village	Mr. Ahsan Ahsan Ahmad	+93798885727
24	Daikundi	Nili	Mish Awlya Village	N/A	N/A
25	Daikundi	Nili	Ghrooj Village	Mirza Hossain Amiri	+93777210087
26	Daikundi	Nili	Sar-e Sangemoom Village	N/A	N/A
27	Daikundi	Nili	Puye Sangemoom Village	N/A	N/A
28	Daikundi	Nili	Sar-e Nili Village	N/A	N/A
29	Daikundi	Nili	Chardor Village	N/A	N/A
30	Daikundi	Nili	Zamburkhan Village	N/A	N/A

ANNEX 4: NATIONAL LEVEL GOVERNMENT AGENCY QUESTIONNAIRE

Interviewer Name	
Interviewer Position	
Interviewer Office	
Targeted Province	
District & Village	
Start Date	
End Date	

Ministry/Agency Involved	
Interviewee Name	
Interviewee Position	
Interviewee Contacts	

1. Has your ministry/department developed/revised any national & sectoral documents to increase government capacity to adapt to climate change?

A. Yes

B. No

C. If yes, please provide details.

2. Have any of the staff in your ministry/department either at the central or provincial level been trained on Technical Adaptation themes?

A. Yes

B. No

C. If yes, please provide details.

3. Has there been any climate change risk assessments skills training held at the central or provincial level?

A. Yes

B. No

4. How many people were trained on climate change risk assessment skills? (Only to be asked if the answer to question #3 is "yes.")

5. Can you please provide the details of the trainees, trainees bio-details, disaggregated by gender, geographical location central/provincial?

6. Was any training held on specific skills needed for climate change EWS?

A. Yes

B. No

7. Was the training at central or provincial level? (Only to be asked if the answer to question #6 is "yes.")

A. Central

B. Provincial

8. How many staff were involved in these training/trainings? Please provide details.

9. Do you have any EWS system in place in the following provinces? If "yes," please provide details.

#	Province	Yes	No	Details
1	BADAKHSHAN			
2	BALKH			
3	BAMYAN			
4	DAIKUNDI			

10. Have you provided any EWS equipment to communities in the following provinces? If "yes," please provide details.

#	Province	Yes	No	Details
1	BADAKHSHAN			
2	BALKH			
3	BAMYAN			
4	DAIKUNDI			

11. Have you developed any Standard Operating Procedures (SOPs), plans, or strategies for EWS in Afghanistan?

A. Yes

B. No

C. If "yes," please provide more details.

12. What are the available EWSs in Afghanistan?

13. Have you identified any potential staff to be trained on EWS?

A. Yes

B. No

C. If "yes," please provide more details.

14. Do you know of any vulnerability maps that have been produced based on regional climate change models, spatial models and hydrological models?

15. Is your department involved in developing any tools that can be used for climate change adaptation ?

A. Yes

B. No

C. If "yes." please provide a list of the climate change adaptation tools you have developed?

16. Has your institution developed any country wide policy addressing Climate Change Adaptation issues?

A. Yes

B. No

C. If "yes," then how is it accessible?

17. Has your ministry revised any policy or strategy documents to include climate change?

A. Yes

B. No

C. If "yes," please provide details

18. Has your ministry/department developed any knowledge products e.g. brochures on climate change adaptation?

A. Yes

B. No

C. If "yes," please provide details

19. Has your directorate held any national policy workshop on development of sustainable economic activities and mitigation of the effects of the climate change? Have any of your staff attended a workshop of this nature? (Who ran the workshop?)

A. No

B. Yes

C. If "yes," please provide details

20. If UNEP organizes this workshop how many potential people you will introduce to attend this workshop?

21. Do you know of any public service training programmes in Afghanistan integrating international and local-level knowledge including the findings from research, interventions and lesson learned from this project.

A. No

B. Yes

ANNEX 5: PROVINCIAL LEVEL GOVERTNMENT AGENCY QUESTIONNAIRE

Interviewer Name	
Interviewer Position	
Interviewer Office	
Targeted Province	
District & Village	
Start Date	
End Date	

Ministry/Agency Involved	
Interviewee Name	
Interviewee Position	
Interviewee Contacts	

1. Have any staff from your unit/division been trained on technical adaptation themes for climate change?

A. Yes

B. No

C. If "yes," please provide details

2. Has any staff from your unit/division been trained on any climate change risk assessments skills?

A. Yes (proceed with question #3)

B. No

3. If, "yes," how many of your staff were trained on climate change risk assessment skills? Can you please provide the details of the trainees, trainees bio-details, disaggregated by gender?

#	STAFF NAME	TITLE	SEX	TRAINING DETAILS
1				
2				
3				
4				
5				
Etc.				

4. Have any staff from your unit/division been trained on specific skills needed for developing climate change early warning systems (EWS)?

A. Yes

B. No

5. How many staff from your unit/division have been involved in these trainings?

6. Do you have any EWS system in place in the following villages?

A. Yes

B. No

C. If "yes," please provide details

#	VILLAGE NAME	Y/N	DETAILS
1			
2			
3			
4			
5			
Etc.			

7. Have you provided any EWS equipment to communities in below mentioned villages?

A. Yes

B. No

C. If "yes," please provide details

#	VILLAGE NAME	Y/N	DETAILS
1			
2			
3			
4			
5			
Etc.			

ANNEX 6: DISTRICT/VILLAGE LEVEL GOVERNMENT AGENCY QUESTIONNAIRE

Interviewer Name	
Interviewer Position	
Interviewer Office	
Targeted Province	
District & Village	
Start Date	
End Date	

1. DEMOGRAPHIC INFORMATION	
Line Ministry	Directorate of Interior Affairs – Statistics Department
Interviewee Name	
Interviewee Position	
Consultation Date	
Question	Answer
What is the total village population?	
What is the total % of male population above 18 years old	
What is the total % of female population above 18 years old?	
What is the total % of male population under 18 years?	
What is the total % of female population under 18 years?	
What is the main ethnicity living in the village?	
Are there other ethnicities in the village?	

2. GEOGRAPHIC AND AGRICULTURAL INFORMATION	
Line Ministry	Directorate of Agriculture, Irrigation & Livestock
Interviewee Name	
Interviewee Position	
Consultation Date	
Question	Answer
Province, district, village (GPS coordinates):	
How old is the village?	
What is the overall size of the village? In KM^2?	
What is the total village land area in Jeribs?	
What is the total % of land under cultivation?	
What is the average household land size (area)?	
What is the # of households with land?	
What is the # of households without land?	

Is there communal land? Who owns land around the village?	
What types of crops are grown?	
Where the crops seed come from?	
What are the other crops that you have access to?	
Why are you households NOT using these crops?	
What is the % of households with livestock? (list animals)	
Where do these animals graze?	
Is there livestock grazing cycle/management? Describe:	
What forest resources are available? List all.	
What fruits/nut trees are cultivated?	
What wild food and plants are collected?	
Are wild foods, forest, fruits, and nut products are consumed or sold?	
Other?	

3. WATER RESOURCE MANAGEMENT INFORMATION		
Line Ministry	Directorate of Agriculture, Irrigation & Livestock & Directorate of Energy and Water	
Interviewee Name		
Interviewee Position		
Consultation Date		
Question	Answer	
What water resources are available in the village?		
Is there sufficient water for drinking, agriculture, etc. in the village?		
Which of the following irrigation methods are present in the village?	Y/N	Details
a. Drip irrigation?		
b. River diversion for flooding fields?		
c. Strip crop-catchments?		
d. Contour bunds?		
e. Water canals for flood/drought management?		
f. Hydropower water/irrigation pumps?		
g. Other?		
Does the village use water storage systems? Catchment ponds?		
Other: (gender, age, political, economic, etc. aspects not captured above?)		

4. ECONOMIC INFORMATION	
Line Ministry	Directorate of Economy
Interviewee Name	
Interviewee Position	
Consultation Date	
Question	Answer
What is the main source of household income?	
What is the average annual household income?	
What is the % of women's contribution to household income?	

5. EDUCATIONAL INFORMATION	
Line Ministry	Directorate of Education
Interviewee Name	
Interviewee Position	
Consultation Date	
Question	Answer
What is the total # of students in the village?	
What is the total # of male students?	
What is the total # of female students?	
What is the average education level in the village?	

ANNEX 7: VILLAGE CONSULTATION SUMMARY SHEET

1. GENERAL VILLAGE INFORMATION		
Province, district, village (GPS coordinates):		
Date of consultation:		
Consultation participants:		
Village size (HH and people):		
Village age:		
Ethnicity breakdown:		
School; level and # of students:		
Average village education level:		
Average HH income:		
Sources of HH income:		
2. LAND AND AGRICULTURE INFORMATION		
Total village land area (jerib):		
Total land under cultivation (%):		
# of HHs with/without land:	# with land:	# without land:
Average HH land size (area):		
Is there communal land? Who owns land around village?		
What types of crops are grown?		
Where do the crop seeds come from?		
What are the other crops that you have access to?		
Why are you not using these crops?		
Amount (%) of HHs with livestock (list animals):		
Where do animals graze?		
Is there livestock grazing cycle/management? Describe:		
Other: (gender, age, political, economic, etc. aspects not captured above?)		
3. WATER RESOURCE MANAGEMENT		
What water resources are available?		
Is there sufficient water for drinking, agriculture, etc.?		
How does the community manage its water resources?		

What irrigation methods are present?	Drip irrigation.	Yes	No
	River diversion for flooding fields.	Yes	No
	Strip crop-catchments.	Yes	No
	Contour bunds.	Yes	No
	Water canals for flood/drought management.	Yes	No
	Hydro-powered water/ irrigation pumps	Yes	No
	Other:		
Do you use water storage systems? Catchment ponds?			
Other: (gender, age, political, economic, etc. aspects not captured above?)			
4. FORESTRY AND TREES			
What forest resources are available? List all.			
What fruit/nut trees are cultivated?			
What fuel sources are there?			
What wild foods and plants are collected?			
Are wild foods, forest, fruit, and nut products consumed or sold?			
Other: (gender, age, political, economic, etc. aspects not captured above?)			
5. LIST/DESCRIBE THE ENVIRONMNETAL MANAGEMENT, CLIMATE CHANGE, AND OTHER DISASTER RISKS THE VILLAGE FACES.			
Environmental management:	1. 2. 3. 4.		
Climate change:	1. 2. 3. 4.		
Disaster risks:	1. 2. 3. 4.		
6. WHAT OTHER ORGANIZATIONS, PROJECTS, AND ACTIVITIES (PAST AND PRESENT) HAVE THERE BEEN IN THE VILLAGE?			
	Entity (Gov, NGO, UN, etc.)	Project Description	
Present:	1. 2. 3. 4.	1. 2. 3. 4.	

Past:	1. 2. 3. 4.	1. 2. 3. 4.
7. WHAT URGENT NEEDS/PRIORITIES/INTERVENTIONS DID THE VILLAGE IDENTIFY?		
8. WHAT INTERVENTIONS AND PRIORITIES DID UNEP IDENTIFY (IF DIFFERENT FROM THE VILLAGES?)		
9. WHAT FINAL INTERVENTIONS HAVE BEEN SELECTED?		
10. VILLAGE MAP (QUICK SKETCH OF VILLAGE, SETTLEMENTS, RESOURCES, AGRICULTURAL AREAS, VULNERABLE/DISASTER AREAS, ETC.)		

ANNEX 8: CONSOLIDATED KEY NATIONAL-LEVEL GOVERNMENT DATA

Has your ministry/department developed/revised any national and sectoral documents to increase government capacity to adapt to climate change?	NEPA is working on a National Climate Change Strategy (currently pending approval), but NEPA completed Afghanistan's NCSA and NAPA in 2009. Other sectoral policies/strategies developed by MAIL, MEW, MRRD, ANDMA, and AMA do not make any significant mention of climate change.
Have any of the staff in your ministry/department either at the central or provincial level been trained on Technical Adaptation themes?	Two staff from NEPA and two staff from AMA have received introductory training on climate change, but not on technical adaptation themes.
Has there been any climate change risk assessments skills training held at the central or provincial level?	During interviews with government representatives only two staff from NEPA and two staff from AMA were identified as having participated in trainings on climate change risk assessments. Nevertheless, documentation exists that numerous trainings were delivered to government offices on climate change assessment and adaptation methods, including as part of the NCSA, NAPA, INC, and Strengthened Approach for the Integration of Sustainable Environmental Management in Afghanistan (SAISEM) projects.
Was the training at central or provincial level? (Only to be asked if the answer to question 6# is "yes.")	There is currently no government staff or national experts trained on climate change risk assessments; however, two staff from NEPA and two staff from AMA have attended introductory training courses on climate change.
Do you have any EWS system in place in the following provinces? If "yes," please provide details.	Communities in the 4 LDCF target provinces do not have any climate change EWS equipment available to them.
Have you provided any EWS equipment to communities in the following provinces? If "yes," please provide details.	No EWS equipment has been provided to LDCF target communities in all four provinces.
Have you developed any Standard Operating Procedures (SOPs), plans, or strategies for EWS in Afghanistan?	At present, no climate change EWS SOPs exist in Afghanistan.
Do you know of any vulnerability maps that have been produced based on regional climate change models, spatial models and hydrological models?	Vulnerability maps of climate change risks in Afghanistan are not presently available.
Is your department involved in developing any tools that can be used for climate change adaptation?	No climate change adaptation toolkit has been previously developed for Afghanistan at the national level.
Has your institution developed any countrywide policy addressing Climate Change Adaptation issues?	No climate change adaptation toolkit has been previously developed for Afghanistan at the national level.
Has your ministry revised any policy or strategy documents to include climate change?	Sectoral policies and strategies do not make any significant mention of climate change.
Has your ministry/department developed any knowledge products e.g. brochures on climate change adaptation?	To date, less than ten knowledge products on climate change in Afghanistan have been produced by government/NGOs, including: 1 socioeconomic study (1 ,(2009 NGO backgrounder (3 ,(2012 NEPA publications – INC (2012), NCSA (2009) and NAPA (2009), and 1 unpublished thesis (2011).
Has your directorate held any national policy workshop on development of sustainable economic activities and mitigation of the effects of the climate change? Have any of your staff attended a workshop of this nature? (Who ran the workshop?)	To date, no national policy workshop on adaptation to climate change has ever been held in Afghanistan.
Do you know of any public service training programmes in Afghanistan integrating international and local-level knowledge including the findings from research, interventions and lesson learned from this project.	None; In Kabul there is only one institute named Civil Service Institute, which is under Independent Administrative reform and civil service commission, but does not offer any trainings relevant to climate change adaptation.

ANNEX 9: CONSOLIDATED KEY PROVINCIAL-LEVEL GOVERNMENT DATA

Have any staff from your unit/division been trained on technical adaptation themes for climate change?	Based on interviews with provincial-level government representatives in all four LDCF target provinces, only the Daikundi NEPA Director attended a training that covered technical adaptation themes. Nevertheless, based on discussions with other project partners and stakeholders, it is evident that government staff in all four target provinces have received training on related topics such as village planning, natural resource management, and ecological approaches to disaster risk reduction, amongst others.
Have any staff from your unit/division been trained on any climate change risk assessments skills?	Based on interviews with provincial-level government representatives in all four LDCF target provinces, only the Daikundi NEPA Director attended a training that covered climate change risk assessment. Nevertheless, based on discussions with other project partners and stakeholders, it is evident that government staff in all four target provinces have received training on related topics such as village planning, natural resource management, and ecological approaches to disaster risk reduction, amongst others.
If, "yes," how many of your staff were trained on climate change risk assessment skills? Can you please provide the details of the trainees, trainees bio-details, disaggregated by gender?	Based on interviews with provincial-level government representatives in all four LDCF target provinces, only the Daikundi NEPA Director attended a training that covered climate change risk assessment. Nevertheless, based on discussions with other project partners and stakeholders, it is evident that government staff in all four target provinces have received training on related topics such as village planning, natural resource management, and ecological approaches to disaster risk reduction, amongst others.
Have any staff from your unit/division been trained on specific skills needed for developing climate change early warning systems (EWS)?	Based on interviews with provincial-level government representatives in all four LDCF target provinces, no government staff have been trained on skills needed for developing climate change early warning system. Nevertheless, based on discussions with other project partners and stakeholders, it is evident that government staff in all four target provinces have received training on related topics such as village planning, natural resource management, and ecological approaches to disaster risk reduction, amongst others.
Do you have any EWS system in place in the following villages?	Based on interviews with provincial-level government representatives in all four LDCF target provinces, there are no government-led EWS in place, though respondents did identify that some local communities use mobile phones to alert downstream villages about potential floods. Nevertheless, based on discussions with other project partners and stakeholders, it is evident that government staff in all four target provinces have received training on related topics such as village planning, natural resource management, and ecological approaches to disaster risk reduction, amongst others.

ANNEX 10: CONSOLIDATED KEY VILLAGE-LEVEL DATA

1. What is the total village population?	Of all villages surveyed, the average # of households per village was 190, with Qazan as the largest and Jawkar as the smallest with 370 and 56 households, respectively.
2. What is the total % of the male/female population in the target districts?	Accurate village-level statistics are unavailable, but based on provincial profiles prepared by MRRD the overall population in the LDCF target districts is approximately: 1. Bamyan Province, Bamyan District has 40,400 males, which accounts for 49.94% of the total population. 2. Daikundi Province, Nili District has 20,300 males, which accounts for 51.26% of the total population. 3. Balkh Province, Dehdadi District has 33,600 males, which accounts for 51.22% of the total population. 4. Balkh Province, Khulm District has 35,400 males, which accounts for 51.38% of the total population. 5. Badakhshan Province, Faizabad District, has 33,000 males, which accounts for 51% of the total population. 6. Badakhshan Province, Kishem Province has 40,200 males, which accounts for 51.15% of the total population.
3.What is the main ethnicity living in the village?	The main ethnicity living in the LDCF target villages are as follows: 1. Bamyan - Hazara 2. Badakhshan - Tajik 3. Balkh - Uzbeks 4. Daikundi - Hazara
4. Are there other ethnicities in the village?	The estimated ethnic breakdown of the population in the LDCF target villages is as following: 1. Bamyan - over 90% Hazara, and the remaining approximately 10% are Tajik and Saadat. 2. Badakhshan - mainly Tajik & Uzbek. 3. Balkh - Tajik, Uzbek, and Pashtun. 4. Daikundi - mainly Hazaras, but also Tajik and Sadat.
5. Province, district, village (GPS coordinates):	Bamyan: 34°49'N 67°49'E Dehdadi: 36.6622° N, 66.9953° E Faizabad: 37°7'03'N 70°34'47'E Khulm: 36.6833° N, 67.6833° E Mazar-e Sharif: 36°42'N 67°07'E Nili: 33°43'N 66°7'E

6. How old is the village?	The average, youngest, and oldest LDCF target villages are as follows: 1. Average: 380 years 2. Youngest: Seyalayak Village - 100 years 3. Oldest: Ahangaran - 1000 years
7. What is the total village land area in Jeribs?	The average, smallest, and largest LDCF target villages are as follows: Average: 1593 Jeribs Smallest: 30 Jerib - Garmbolaq Village Largest: 12500 Jeribs - Deh Poyan Sangimoom
8. What is the total % of land under cultivation?	The average, smallest, and largest % of land under cultivation in LDCF target villages are as follows: 1. Average: 56.19% 2. Smallest: 1.28% 3. Largest: 100%
9. What types of crops are grown?	Wheat, potatoes, barley, and lentils
10. What fruits/nut trees are cultivated	Apple, apricots, cherry, walnuts, and almonds.
11. Disaster risks	Across all LDCF target villages, the primary disaster risks reported include: avalanches, flood, drought, storms, falling rocks, and landslides.

Further technical information may be obtained from the UNEP Post-Conflict and Disaster Management branch website at: http://www.unep.org/disastersandconflicts/ or by email: postconflict@unep.org

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