COMMUNITY-BASED DISASTER PREPAREDNESS (CBDP) TOOLKIT

The Afghanistan Resilience Consortium's Guide to Building Community-based Resilience to Natural Hazards and Climate Change in Afghanistan

ARC

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Executive Summary

Afghanistan is a predominantly rural country where more than 80 percent of the population relies directly on the natural resource base to meet its daily needs. However, nearly four decades of conflict and environmental mismanagement have severely degraded the natural environment and reduced the resilience of rural communities to natural hazards and climate change.[1] In addition to conflict, many social and economic pressures, such as poverty, migration, unemployment, and adverse land tenure practices, have pushed people to live in more hazard-prone areas, thereby increasing exposure and vulnerability. Moreover, Afghanistan's dependence on rain-fed agriculture, livestock herding, and dryland farming makes it extremely exposed to the adverse impacts of climate change, including increased temperatures, changes in precipitation patterns, and extreme weather events.

According to most global indices, Afghanistan is ranked as extremely vulnerable to natural hazards and climate change.[2] The humanitarian situation in Afghanistan is among the worst in the world, with recent studies showing that more than 70 percent of the country's population has been displaced by conflict at least once in their lifetimes, and only 30 percent of the population is food secure.[3] Afghanistan's chronic needs are also compounded by periodic emergencies and natural hazards. Nearly half of the country's 398 districts are highly prone to natural hazards, and each year some 250,000 people are directly affected by natural hazards such as droughts, floods, landslides, avalanches, earthquakes and extreme weather.[4]

In the aftermath of a natural hazard, the provision of emergency aid to affected communities is essential to saving lives and addressing urgent humanitarian needs. However, preparatory actions taken before a natural hazard strikes can considerably reduce the negative impacts of such hazards on human life, property, and the environment. Such preparatory actions – globally referred to as disaster risk reduction (DRR) – include reducing exposure to natural hazards, reducing vulnerability of people and property, effective management of natural resources and the environment, and improving preparedness and early warning systems.[5] However, determining what preparatory DRR actions to employ requires a thorough understanding of the local context and how diverse actors and factors interact and can be mobilized to reduce vulnerability and exposure to natural hazards.

The following Community-based Disaster Preparedness (CBDP) toolkit was developed by the Afghanistan Resilience Consortium (ARC) based on our experience of working with more than 700 communities across nine of Afghanistan's most hazard-prone provinces. In 2017, the ARC further revised the CBDP toolkit following an action research activity that harvested the best practices and lessons learned from its previous usage, which also led to the integration of a greater number of environmental and climatological factors into the toolkit. These include the refinement of the seasonal calendar, hazard profiling, and capacity assessments, as well as the integration of climate projections into the analysis and planning for community-based resilience-building activities.

1. UNEP. (2002). Afghanistan Post-Conflict Environmental Impact Assessment. Geneva: United Nations Environment Programme (UNEP).
2. See DARA Climate Vulnerability Monitor (2012), GermanWatch Global Climate Risk Index (2013), and Notre Dame Global Adaptation Index (2014) for full details.
3. WFP. (2012). Emergency Food Security and Livelihoods Survey. Kabul: World Food Programme (WFP).
4. UN. (2013). Afghanistan Common Humanitarian Action Plan 2013. Kabul: United Nations.
5. UNISDR. (n.d.). What is Disaster Risk Reduction?

The overall objective of the CBDP toolkit is to identify the short-, medium- and long-term actions that can be taken with a community in order to address the underlying vulnerabilities to natural hazards and climate change. In doing so, the CBDP toolkit builds upon the data generated by the ARC's Hazard and Climate Vulnerability and Capacity Assessment (HCVCA) toolkit, which is the vehicle through which primary data on local community conditions, vulnerabilities, and capacities is collected.

With this data in hand, the CBDP toolkit aims to provide Afghanistan's development practitioners, community leaders, and Government decision-makers with a framework for participatory planning with local communities for practical actions to minimize the threats and impacts of natural hazards and climate change. Thus, the CBDP toolkit's approach aims to bring together different stakeholders across the community to promote greater understanding of the linkages between environmental degradation, socio-economic conditions, and resilience to hazards and climate change, especially among those groups that directly depend on the natural resource base for subsistence.

Moreover, as the CBDP toolkit is concerned with conditions at the community level, and recognizing the diversity of any given community in Afghanistan, the majority of its tools aim to build upon the local knowledge of a wide cross-section of people and groups within the community. With these plans in hand, we hope that Afghanistan's rural communities will be better prepared to cope with the challenges of natural hazards amidst a changing climate, and take concrete steps towards bolstering their resilience.

1

INTRODUCTION

Overview of Natural Hazards in Afghanistan

Every year Afghanistan suffers from numerous floods, droughts, landslides, avalanches, earthquakes, and extreme temperatures. However, owing to Afghanistan's diverse geography – ranging from high mountains in the northeast to desert plains in the south – the distribution of these hazards is not uniform across the country, nor do they impact all people in the same ways. For these reasons, assessing vulnerability to natural hazards and climate change is best contextualized within local conditions, and benefits from participatory and inclusive research methods that allow local communities to vocalize their challenges and needs. The following is a brief overview of the major natural hazards in Afghanistan, followed by an explanation of the expected impacts of climate change on these hazards.

- **Flood**
  Across Afghanistan, seasonal and flash floods regularly cause fatalities, damage to property and infrastructure, destruction of agricultural crops and lands, death of livestock, and disruption of rural livelihoods. The impacts of these floods are often felt so severely because of high levels of exposure, environmental degradation that exacerbates the severity of floods, and lack of planning and insufficient infrastructure to mitigate the impacts of floods. For example: houses, lands, assets and infrastructure are frequently located in flood areas; deforestation and rangeland degradation result in greater run-off of water within watersheds, exacerbating flood severity; the absence of floodways and retaining walls to direct water away from community assets leave such assets vulnerable; and early warning systems are generally either absent or inadequate to provide effective warning of impending hazards.

- **Drought**
  Over recent decades, Afghanistan has endured several droughts that have impacted millions of people, reduced agricultural productivity, and undermined rural livelihoods. Particularly hard hit are the communities that rely upon rain-fed cultivation of grains and staple crops. While most of the impacts of drought are due to insufficient precipitation and access to water, additional key drivers are the mismanagement of water resources, lack of planning and preparedness, absence of water-harvesting and drought-resilient agricultural practices, and poverty. A degraded natural resource base in watershed areas, mostly due to loss of trees, rangelands, and other vegetation, also inhibits groundwater recharge and puts greater pressure on aquifers and wells. With the impacts of climate change already beginning to be felt in Afghanistan, it is expected that droughts will increase in frequency and severity as a result of increased temperatures and changes to precipitation patterns that will impact the year-round availability of water.

- **Landslide**
  Although landslides tend to have more localized impacts than other hazards, such as floods that can spread across multiple provinces at a time, they are nonetheless highly dangerous and destructive forces. As with floods, the impacts of landslides are often severe because of high levels of exposure by having houses, infrastructure, and agricultural and grazing lands located in vulnerable areas. In addition, environmental degradation is also a leading driver as deforestation, soil erosion, and land degradation are responsible for destabilizing hillsides and increasing the risk of landslides. Preparedness for landslides is also generally low at the school, community, and district levels, and only rarely are early warning systems for landslides installed or operational.

- **Avalanche**
  In mountainous areas of the country, avalanches are a serious natural hazard that pose considerable threats to local communities and infrastructure. Moreover, the destruction caused by avalanches often extends well beyond mountainous areas, such as occurred in 2015 when avalanches in Panjshir led to hundreds of fatalities and severely damaged infrastructure, including vital power lines that disrupted power supply to Kabul for several weeks. As with the aforementioned hazards, community-level resilience to avalanches is generally very low due to the magnitude and timing of the event resulting in widespread damage to infrastructure, wintertime isolation and road closures, and lack of preparedness and early warning.

- **Earthquake**
  Afghanistan is a seismically active country owing to its geological location along the Hindu Kush mountain range. Past earthquakes in Afghanistan have caused considerable destruction to buildings and infrastructure, frequently resulting in injuries and loss of life. The northern regions of the country, especially the far north-eastern provinces of Badakhshan and Takhar, are particularly vulnerable to earthquakes. The impacts of earthquakes are further exacerbated by a lack of information, planning and early warning, the locations of buildings and structures, the timing of the event, isolation and accessibility, and a lack of resources for response and recovery.

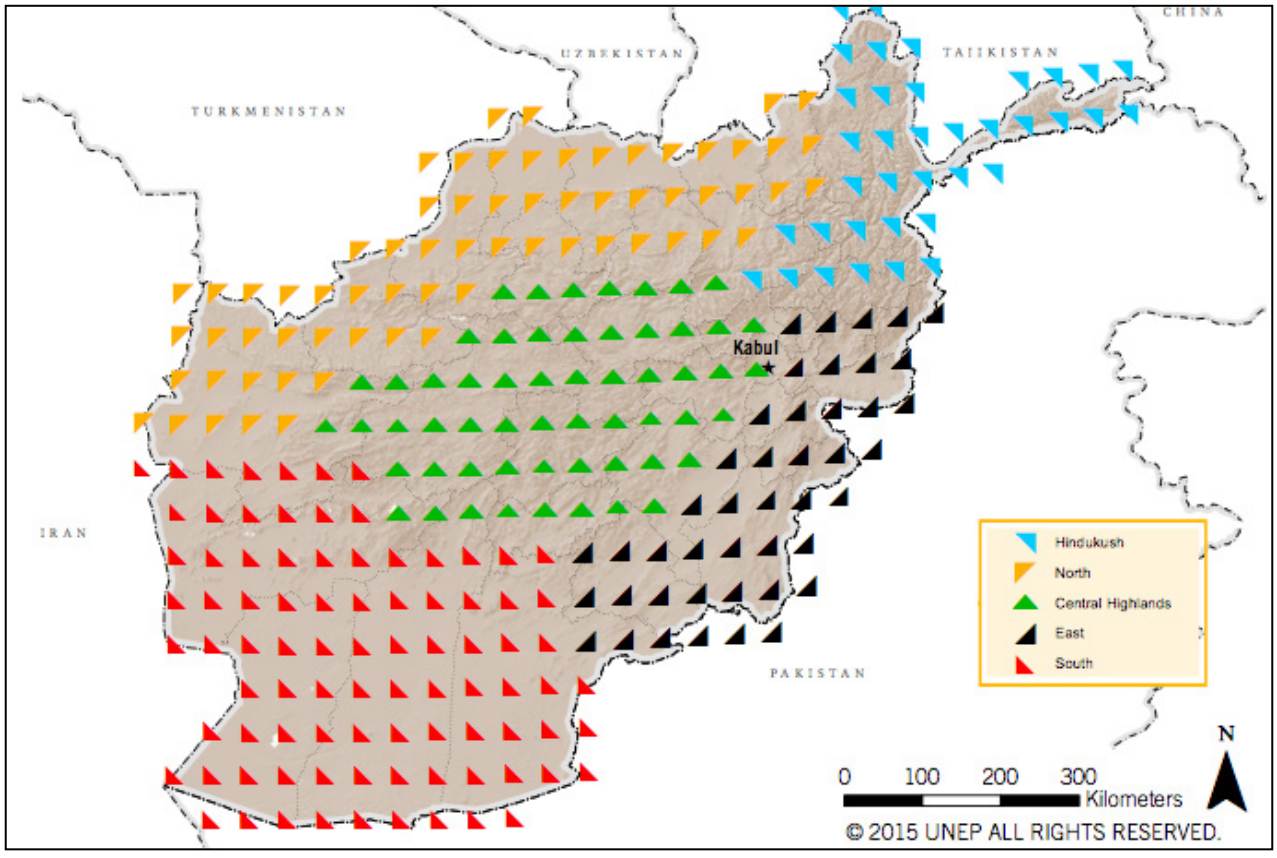
- **Extreme Temperatures**
  Extreme temperatures, meaning severely high temperatures in summer and severely low temperatures in winter, are natural hazards experienced across Afghanistan and occur because of the country's diverse geography and weather patterns. Moreover, with the growing impacts of climate change on seasonal weather patterns, the threats posed by extreme temperatures on rural livelihoods cannot be overstated. For example, changes in plant growth rates caused by increases in temperature and the associated changes in soil moisture can subsequently impact income generation and food security. In effect, changes to seasonal temperatures and weather patterns can greatly impact the natural environment and natural resource base that rural Afghanistan's communities rely upon for their subsistence and livelihoods.

Overview of Climate Change Projections for Afghanistan

Climate change refers to alterations in the earth's atmosphere and environment that have long-term effects, such as climate warming, changes in precipitation levels, or increased frequency of extreme weather events at the global and regional levels. This global warming can largely be attributed to increased emissions of greenhouse gases (GHGs), such as carbon dioxide, that are released into the atmosphere through human activities like the burning of fossil fuels.

In 2016, Afghanistan's National Environmental Protection Agency (NEPA) and the United Nations Environment Programme (UN Environment) developed the most detailed and accurate climate change projections to date for Afghanistan, based upon currently available climate data and regional climate models from the CORDEX experiment.[6,7] The climate change projections of these models are based on different GHG scenarios, known as Representative Concentration Pathways (RCPs).[8] These climate models were applied across Afghanistan and further analysed according to the country's distinct climate regions shown in Figure 1: Northern Plains (north), Hindukush (northeast), Central Highlands (centre), Eastern Slope (east) and Southern Plateau (south).

Figure 1: Climate Regions of Afghanistan[9]



6. Aich, V. & Khoshbeen, A.J. (2016). Afghanistan: Climate Change Science Perspectives. Kabul: National Environmental Protection Agency (NEPA) and UN Environment.
7. Aich, V., Akhundzadah, N.A., Knuerr, A., Khoshbeen, A.J., Hattermann, F., Paeth, H., Scanlon, A. & Paton, E.N. (2017). 'Climate Change in Afghanistan Deduced from Reanalysis and Coordinated Regional Climate Downscaling Experiment (CORDEX) – South Asia Simulations.' Climate 5(2): 38.
8. Representative concentration pathways (RCPs) are GHG emission scenarios adopted by the Intergovernmental Panel on Climate Change (IPCC) to describe four possible climate futures depending on the levels of future global GHGs emitted. There are four RCPs: 1) RCP2.6, which assumes that GHG emissions peak between 2010-2020 and then decline; 2) RCP4.5, which assumes that GHG emissions peak around 2040 and then decline; 3) RCP6, which assumes that GHG emissions peak around 2080 and then decline; and 4) RCP8.5, which assumes that GHGs emissions continue to rise throughout the 21st century.
9. Aich, V. & Khoshbeen, A.J. (2016). Afghanistan: Climate Change Science Perspectives. Kabul: National Environmental Protection Agency (NEPA) and UN Environment.

Overall, the findings from these climate projections show a strong increase in mean annual temperature. Under the "optimistic" (RCP4.5) scenario, Afghanistan will experience warming of approximately 1.4°C until 2050, followed by a period of stabilization to approximately 2.6°C above current levels by 2100. More extreme is the "pessimistic" (RCP8.5) scenario, which shows high levels of countrywide warming of approximately 2°C until 2050, continuing up to 6.3°C by 2100. Under both scenarios there are regional differences, with higher temperature increases expected at higher altitudes than in the lowlands.

In contrast to temperature, the model projections for precipitation show a greater level of uncertainty and more distinct regional and seasonal differences. Overall, the mean of all models shows a decrease in precipitation during spring (March-May), but this is generally offset by increases in precipitation during autumn and winter (October-December). This decrease of precipitation during springtime is especially relevant since this is the period of main plant growth for rainfed agricultural production. The fact that this precipitation decrease is projected to take place in the regions with the highest agricultural productivity of Afghanistan (East, North, and Central Highlands) is of particular concern. In combination with the overall increase in temperature and the related increase in evapotranspiration, this will most likely have negative impacts on the hydrological cycle, availability of water resources, and ultimately agricultural productivity.

Based upon these climate change projections (summarised in Table 1), it is evident that Afghanistan's environment will experience considerable change over the remainder of this century. Thus, it is imperative that climate change adaptation, based on sound scientific analysis of those changes and uncertainties, is integrated into sectoral planning to reduce vulnerability to the negative impacts of climate change in Afghanistan by increasing resilience and enhancing adaptive capacity of people, practices and ecosystems. This is particularly important in rural areas where communities rely on agricultural production as a primary means of subsistence and changes in the seasonality of precipitation may present further challenges for agricultural productivity and rural livelihoods.

Table 1: Regional Climate Change Projections (2010-2100)[10]

CLIMATE REGION	PROVINCES	CLIMATE CHANGE PROJECTIONS (2010-2100)	
		TEMPERATURE	PRECIPITATION
Northern Plains (north)	Badghis Balkh Faryab Herat (north) Samangan, Baghlan (west) Jawzjan Sar-e Pul (north) Takhar (north) Kunduz	Optimistic (RCP4.5)	Optimistic (RCP4.5)
		Warming of 2.6°C	Annual: fluctuation of ± 10% Spring: fluctuation of ± 10% Winter: fluctuation of ± 10%
		Pessimistic (RCP8.5)	Pessimistic (RCP8.5)
		Warming of 6.1°C	Annual: decrease of 34 mm (-13%) Spring: decrease of 24 mm (-32%) Winter: fluctuation of ± 10%
Hindukush (northeast)	Badakhshan Baghlan (east) Nuristan Panjshir Takhar (south)	Optimistic (RCP4.5)	Optimistic (RCP4.5)
		Warming of 2.7°C	Annual: increase of 122 mm (+13%). Spring: fluctuation of ± 10%. Winter: increase of 60 mm (+22%).
		Pessimistic (RCP8.5)	Pessimistic (RCP8.5)
		Warming of 6.8°C	Annual: fluctuation of ± 10% Spring: fluctuation of ± 10% Winter: increase of 24 mm (+7.5%)
Central Highlands (centre)	Bamyan Daikundi Ghazni (north/west) Ghor Herat (east) Parwan Uruzgan Wardak	Optimistic (RCP4.5)	Optimistic (RCP4.5)
		Warming of 2.3°C	Annual: increase of 34 mm (+11%) Spring: decrease of 7 mm (-18%) Winter: fluctuation of ± 10%
		Pessimistic (RCP8.5)	Pessimistic (RCP8.5)
		Warming of 5.7°C	Annual: increase of 26 mm (+8%) Spring: fluctuation of ± 10% Winter: decrease of 16.5 mm (-33%)

10. Aich, V. & Khoshbeen, A.J. (2016). *Afghanistan: Climate Change Science Perspectives*. Kabul: National Environmental Protection Agency and UN Environment.

Eastern Slopes (east)	Ghazni (east) Kabul Kapisa Khost Kunar Laghman Logar Nangarhar Paktika Paktya Zabul	Optimistic (RCP4.5)	Optimistic (RCP4.5)
		Warming of 2.3°C	Annual: increase of 34 mm (+11%) Spring: decrease of 7 mm (-18%) Winter: fluctuation of ± 10%
		Pessimistic (RCP8.5)	Pessimistic (RCP8.5)
		Warming of 5.7°C	Annual: increase of 26 mm (+8%) Spring: fluctuation of ± 10% Winter: decrease of 16.5 mm (-33%)
Southern Plateau (south)	Farah Helmand Herat (south) Kandahar Nimroz	Optimistic (RCP4.5)	Optimistic (RCP4.5)
		Warming of 2.4°C	Annual: increase of 19 mm (+21%) Spring: fluctuation of ± 10% Winter: fluctuation of ± 10%
		Pessimistic (RCP8.5)	Pessimistic (RCP8.5)
		Warming of 5.9°C	Annual: fluctuation of ± 10% Spring: fluctuation of ± 10% Winter: decrease of 6.5 mm (-25%)

Entry Points for Community-based Resilience Actions

Taking into account the local conditions of the community – including its social, cultural, economic, political, environmental, etc. characteristics – it is possible to identify a potential menu of actions for building resilience to natural hazards and climate change. The approach proposed by the ARC in this toolkit is ground-up, therefore the selection of these actions should be done in participatory consultation with the local community members, and ideally with the same persons that participated in the HCVCA and were involved in the identification of the community's vulnerabilities, hazards, and climate change impacts. Based upon the ARC's extensive experience working with local communities across Afghanistan, the following priority actions have been identified for each of the most common natural hazards that occurs in rural communities, as well as the broad climate change impacts that should be taken into consideration:

Table 2: Overview of Actions to Reduce Impacts of Natural Hazards and Climate Change

NATURAL HAZARD	CLIMATE CHANGE CONSIDERATIONS	POTENTIAL ACTIONS
Flood (flash)	Changes in annual precipitation may lead to low growing of plants and disruption of soil stability, further contributing to soil erosion and risk of flash floods in early spring.	1. Public awareness and preparedness programs on flood DRR 2. Improved planning to limit/prevent construction in risk zones 3. Relocation of buildings, farmland and other community assets outside of risk zones 4. Rainfall and flood monitoring, forecast and warning systems 5. Mid-catchment (upper- to mid-level village and farming areas): riparian forestry, groynes and stream bank protection, detention (temporary holding), retention (farm dams) and dry wells 6. Upper catchment (above highest villages): bio-weirs and check dams, dry wells, terracing, contour bunding, hedge lines, stone lines 7. Rangeland, forest, and woodland restoration
Flood (seasonal)	Decreased springtime precipitation indicates less water availability during spring flood times. However, increased temperatures can the seasonality and speed of snowpack melt, resulting in greater risk of flood.	1. Public awareness and preparedness programs on flood DRR 2. Improved planning to limit/prevent construction in risk zones 3. Relocation of buildings, farmland and other community assets outside of risk zones 4. Flood monitoring, forecast and warning systems 5. Mid-catchment (upper- to mid-level village and farming areas): riparian forestry, groynes and stream bank protection, detention (temporary holding), retention (farm dams) and dry wells 6. Upper catchment (above highest villages): bio-weirs and check dams, dry wells, terracing, contour bunding, hedge lines, stone lines 7. Rangeland, forest, and woodland restoration

Landslide	Increased soil saturation caused by seasonal flooding can impact the frequency and severity of landslides in hilly and mountainous areas.	1. Public awareness and preparedness programs on water resource conservation and management 2. Warning signage for landslide risk areas 3. Improved planning to limit/prevent construction in risk zones 4. Relocation of buildings, farmland and other community assets outside of risk zones 5. Slope re-profiling, erosion control (e.g. bio-nets, brushwood mats), soil drainage, earth anchors, micropiles, retaining walls 6. Rangeland, forest, and woodland restoration
Drought	Decreased springtime precipitation decreases water availability when crops need it the most. Higher temperatures lead to evapotranspiration resulting in lower soil moisture and desertification. Dried soils have lower water absorption capacity; when rains do come, water is not absorbed efficiently leading to greater risk of flooding, erosion, and further desertification.	1. Public awareness and preparedness programs on water resource conservation and management 2. Maintenance, rehabilitation and improvement of irrigation canals and karez (e.g. impervious linings, covers) 3. Solar- and wind-powered water pumps for wells and boreholes 4. Introduction of drought-resilient crop and animal species for food, fiber, fodder and forestry 5. Climate-smart agricultural techniques such as drip irrigation, cover crops and stone mulch, integrated crop–livestock production, agro-forestry, reduced/zero tillage, etc. 6. Watershed management including rangeland, forest, and woodland restoration, contour bunding, hedge lines, stone lines, dry wells, managed aquifer recharge, etc.
Avalanche	Increased wintertime precipitation increases the amount of snowfall, potentially increasing the risk of avalanche in some areas.	1. Public awareness and preparedness programs on avalanche DRR 2. Warning signage for avalanche risk areas 3. Improved planning to limit/prevent construction in risk zones 4. Relocation of buildings, farmland and other community assets outside of risk zones 5. Snow retention, deflection and retardation structures: snow fences, snow bridges, avalanche dams and terraces 6. Rangeland, forest, and woodland restoration
Extreme Temperature	Increased temperatures overall suggest a greater volatility in meteorological phenomenon, and in summer higher temperature spikes increase risks to people, crops, and animals. At the same time, extreme cold temperatures may occur as a result of sudden winter storms.	1. Public awareness and preparedness programs on extreme temperatures 2. Extreme temperature monitoring, forecast and warning systems 3. Planting of shade trees around households and in urban areas for cooling 4. Dams, ponds and streams for bathing and swimming 5. Water resource conservation and management for greater water availability for cooling 6. Improved insulation for buildings to keep them cool in summer and warm in winter 7. Management of livestock herds to deal with extreme heat and cold 8. Sustainable energy sources to provide cooling and heating during extreme temperature conditions (e.g. solar energy for air conditioning, sustainable fire-/fuelwood for heating, etc.)

Collectively, the tools in this CBDP toolkit have been designed in order to:

- analyse the raw data collected via the HCVCA toolkit;
- help identify the underlying vulnerabilities, hazard priorities, and existing capacities in the community; and
- provide the necessary information for designing community-based action plans.

In the following section, we provide an overview of the ARC's approach to building community-based preparedness and resilience to natural hazards and climate change in Afghanistan, including a detailed description of methods, guiding principles, and analytical tools, followed by a series of templates for developing hazard-specific action plans with the community.

2

THE ARC'S APPROACH TO ASSESSING RESILIENCE AND VULNERABILITY TO NATURAL HAZARDS AND CLIMATE CHANGE

Guiding Principles

The CBDP toolkit is designed to be a participatory exercise and a community empowerment tool rather than a planning process for NGOs or development organizations. Thus, it is through the CBPD toolkit that community members come together to discuss the underlying root causes of their vulnerabilities and then design action plans in response to the specific challenges presented by natural hazards and climate change within their community's context. In order for this process to be as fruitful as possible, it is essential that as many diverse groups and individuals participate and make their voices, conditions, and needs heard as possible. With this in mind, the ARC adheres to the following guiding principles when using the CBDP toolkit.

- **Respect**
  Communities are always respected, both as individuals and collectively in their customs, practices, and beliefs.

- **Participation and Equality**
  Everyone's voice is equal, not just the loudest or most common, and often the quietest voices are the most vulnerable and marginalized.

- **Words, Not Just Numbers**
  There are different sides to every story, and not every experience is lived or remembered the same way by different people. Rather than trying to simply document facts and figures, the goal of the CBDP toolkit is to understand the complex ways that people interact with each other and their surroundings in order to identify the underlying causes of vulnerability and design community-led action plans for reducing the impacts of natural hazards and climate change.

- **Local Knowledge**
  Most community members have a lifetime of memories from their area, which translates into an intimate knowledge about local conditions. This local knowledge is respected and treated as complementary to any technical expertise provided by external audiences or sources.

Methodology

Building off these guiding principles, the methods used in the CBDP toolkit aim to both analyse data about vulnerabilities to natural hazards and climate change, as well as promote community engagement and encourage people to collectively take action to build resilience. It is precisely through this engagement that communities can increase their knowledge and understanding of the threats posed by natural hazards and climate change, and thus make better decisions and take actions that increase their resilience and adaptive capacity. Leading this process is more complex than simply administering a survey or filling a template, and often takes the following forms:

- **Focus Group Discussions**
  To bring together community members to openly discuss local conditions, identify challenges, and find opportunities for building resilience and adaptive capacity. Focus group discussions are the primary method of community engagement employed in this toolkit, used in the analysis of key vulnerabilities, capacities, hazard profiling, and action plan development.

- **Iteration**
  A technique where the same question is repeatedly asked in different contexts for confirming the answers provided. This provides a high payoff in terms of the quality and depth of the answer, but requires a high level of skill from the facilitator to continuously reformulate questions throughout the period of the discussion.

- **Probing**
  A way of asking for further clarification and for encouraging the discussion participants to answer more fully and accurately. Furthermore, it also helps to structure the respondent's answers and make sure that all topics of interest are covered. Interviewers or facilitators can ask probing questions at any stage, and frequently rely on the question words "who," "what," "where," "when," "why," and "how" to help gain greater clarity.

- **Participant Observation**
  Where the facilitator becomes a partial participant in the activity, which provides entry points for further observation and decision-making on action plans.

- **Sharing and Feedback**
  In keeping with the participatory spirit of the CBDP toolkit, it is important that community members are provided access to the information collected, allowed to voice their opinions about its content, and confirm that these tools are developed in the ways they want to apply them.

3

RESILIENCE PLANNING AND TOOLS

The following section contains the tools used by the ARC when developing a CBDP plan. The tools are presented here as a complete package, but – recognizing the often different and changing needs of stakeholders and practitioners – each tool has been packaged individually to allow mixing and matching, and thus create a customizable disaster preparedness plan for each community. In addition, the final section of the CBDP toolkit includes a template for developing action plans to address the priority natural hazards identified by the community, which incorporates the salient information generated via the individual CBDP tools.

#	HCVCA TOOL	CBDP TOOL	OBJECTIVE OF CBDP TOOL
1	Vision Mapping	Coversheet and Community Overview	Identification of the goals of this specific CBDP, key priority areas, and quick overview of community facts
2	Hazard Listing	Hazard History	Overview of the major hazards in the community, their salient features, and prioritization in action plans
	Hazard Ranking		
	Hazard History		
3	Community Social Mapping	Community Mapping Analysis	A consolidated map that identifies all the relevant intersections between the community's assets, areas of exposure, and underlying vulnerabilities and capacities, with the ultimate purpose of identifying the important areas for action.
	Hazard and Vulnerability Mapping		
	Natural Resource and Livelihood Mapping		
4	Institutional Mapping	Institutional Analysis	Identification of the institutions that provide services, including analysis of the accessibility and quality of services.
5	Seasonal Calendar	Seasonality and Trend Analysis	Identification of climatological impacts on hazard seasonality, frequency, and severity in order to integrate climate projections into action plans.
	Timeline and Trend Analysis		

COMMUNITY-BASED DISASTER PREPAREDNESS (CBDP) PLAN COVER SHEET

This first page functions as the cover page and includes basic facts about the location of the community, the date when this CBDP plan was completed, and the dates it has been revised and endorsed by relevant authorities

PROVINCE	*Insert name of province*
DISTRICT	*Insert name of district*
COMMUNITY	*Insert name of community*
GPS LOCATION	N: _____ E: _____
FACILITATING ORGANIZATION	*What organization facilitated and supported the creation of this CBDP plan?*
PREPARED BY	*What organization prepared this CBDP plan?*
APPROVED BY	Institution: _____ Name: _____ Title: _____ Signature: _____
KEY DOCUMENT DATES	Prepared: _____ 1st Review: _____ 2nd Review: _____ 3rd Review: _____
COMMUNITY VISION	*Based on the "Vision Mapping" exercise in the HCVCA toolkit, what is the community's vision for a resilient and prosperous future?*
GOALS OF THIS CBDP	*What are the specific goals of this CBDP plan for the community?* 1. 2. 3.

COMMUNITY OVERVIEW

This section summarizes basic information about the community from across the HCVCA process. The objective here is to provide an overview of the community "at a glance."

DEMOGRAPHICS AND LIVELIHOODS		NATURAL RESOURCES	
# of households	*Insert # of households*	Forests	*What forest resources are used?*
# of families	*Insert # of families*	Rangelands	*What rangeland resources are used?*
# of people	Total: _____ M: _____ W: _____	Agriculture	*What agricultural resources are used?* *What crops are cultivated?*
Home construction	*What kinds of houses do people live in?*	Fuel	*What sources of fuel are used?*
Primary livelihood(s)	*List the most important livelihoods*	Drinking water	*What sources of water are used?*
Key Occupation(s)	*List the most important occupations*	Diet and Food	*What foods are eaten?*
Income sources	*List the most important sources of income*	Animals	*What animals do households raise?*
ACCESS AND INFRASTRUCTURE		**NATURAL HAZARD RISKS**	
Distance	*What is the distance to the district centre?*	Floods	*Does the community experience floods?*
Road access	*Is there a road? Is it paved, dirt, etc.?*	Droughts	*Does the community experience droughts?*
Winter access	*Is there access to the village in winter?*	Landslides	*Does the community experience landslides?*
# of vehicles	*Insert # of vehicles*	Avalanches	*Does the community experience avalanches?*
Electricity	*Is there electricity? Is there a grid?*	Earthquake	*Does the community experience earthquakes?*
Mobile phone	*Is there mobile phone coverage?*	Extreme temperatures	*Does the community experience extreme temps?*
# of clinics	*Insert # of clinics*	Vulnerable areas	*What areas are most vulnerable and exposed?*
# of schools	*Insert # of schools*	Vulnerable people	*What people are most vulnerable and exposed?*
# of mosques	*Insert # of mosques*	Vulnerable assets	*What assets are most vulnerable and exposed?*

COMMUNITY HAZARD PROFILE

This section builds off the "Hazard Ranking" and "Timeline and Trend Analysis" tools in the HCVCA toolkit. The objective is to identify the most salient features and trends of natural hazards in order to reduce the community's exposure and vulnerability.

A) HAZARD RANKING

#	**HAZARD** *[List hazards, from most to least disruptive]*	**COMMUNITY IMPACT** *[Briefly state why the community ranks this hazard at this level of disruptiveness]*
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

B) HAZARD HISTORY							
#	HAZARD	DATE	HUMAN CASUALTIES		# OF ANIMALS DEAD	# OF HOUSES DESTROYED	INFRASTRUCTURE DAMAGED
			# injured	# dead			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							

C) HAZARD RISKS							
#	HAZARD	ELEMENTS EXPOSED AND VULNERABLE TO HAZARDS					
		# of houses	# of schools	# of clinics	# of animals	Natural Resources	Infrastructure
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							

COMMUNITY MAPPING ANALYSIS

This section builds off the "Community Social Mapping," "Hazard and Vulnerability Mapping" and "Natural Resource and Livelihood Mapping" tools from the HCVCA toolkit. The objective is to map and identify the priority areas, assets, and actors for action planning.

A) SYNTHESIS MAP

Insert a single map of the community that combines social, hazard, and natural resource layers generated via the HCVCA's mapping exercises. Use this synthesis map to identify the persons, structures, assets, resources, etc. that are exposed and vulnerable to natural hazards. This serves to prioritize and select the specific kinds of short-, medium- and long-term actions needed in order to reduce the impacts of natural hazards in specific areas.

B) VULNERABILITY ANALYSIS	
COMMUNITY ELEMENT	**VULNERABILITY DESCRIPTION**
Populations	*Identify the groups of persons (disabled, poor, women, etc.) that are vulnerable, and briefly state why they are vulnerable.*
Social institutions	*Identify the social institutions (family networks, offices, etc.) that are vulnerable, and briefly state why they are vulnerable.*
Physical structures	*Identify the physical structures (homes, roads, bridges, etc.) that are vulnerable, and briefly state why they are vulnerable.*
Natural Resources	*Identify the natural resources (water, land, forest, etc.) that are vulnerable, and briefly state why they are vulnerable.*
Livelihoods	*Identify the skills, knowledge and attitudes (trust, local practices, etc.) that are vulnerable, and briefly state why they are vulnerable.*

C) CAPACITY AND RESOURCE ANALYSIS	
COMMUNITY ELEMENT	**VULNERABILITY DESCRIPTION**
Populations	*Identify the groups of persons (doctors, carpenters, health workers, etc.) that provide vital services in times of crisis and briefly state their potential use*
Social institutions	*Identify the social institutions (family networks, offices, etc.) that provide vital services in times of crisis and briefly state their potential use*
Physical structures	*Identify the physical structures (homes, roads, bridges, etc.) that provide vital services in times of crisis and briefly state their potential use*
Natural Resources	*Identify the natural resources (water, land, forest, etc.) that provide vital services in times of crisis and briefly state their potential use*
Livelihoods	*Identify the skills, knowledge and attitudes (trust, local practices, etc.) that provide vital services in times of crisis and briefly state their potential use*

D) PRIORITY AREAS FOR ACTION PLANNING			
PRIORITY AREAS *[Identify the location of the priority area]*	**RATIONALE** *[Why is this a priority area? What is its value to the community?]*	**ACTIONS** *[What is needed to reduce the vulnerability of this priority area?]*	**ACTORS** *[Who is responsible and involved in making this happen?]*
1			
2			
3			
4			
5			

INSTITUTIONAL ANALYSIS

This section builds off the "Institutional Mapping" tool from the HCVCA toolkit. The objective is to identify the key institutions that should be involved before, during, and after a hazard strikes, and clearly identify their role.

HAZARD *[Insert name of hazard]*	**INSTITUTION** *[Insert name of Institution]*	**TIMEFRAME** *[before, during, after]*	**ROLE** *[Briefly state the institution's role in terms of coordination, communication, service provision, etc.]*
	1		
	2		
	3		
	4		
	5		
	1		
	2		
	3		
	4		
	5		
	1		
	2		
	3		
	4		
	5		
	1		
	2		
	3		
	4		
	5		

SEASONALITY AND TREND ANALYSIS

This section builds off the "Seasonal Mapping" and "Timeline and Trend" tools from the HCVCA toolkit and the climate change projections for Afghanistan presented in section 1.2 of this CBDP toolkit. The objective is to identify the climate change impacts on seasonal activities and occurrences of natural hazards in order to improve resilience planning.

ACTIVITY/ EVENT	**SEASONAL SHIFT** *[When did this occur? Has it had any season shift in recent times?*	**IMPACTS** *[Briefly state the impact and significance of this seasonal shift on local people, livelihoods, resources, etc.]*	**RESPONSES** *[Briefly state the responses the community has taken to cope with this seasonal shift.]*
	1		
	2		
	3		
	1		
	2		
	3		
	1		
	2		
	3		
	1		
	2		
	3		
	1		
	2		
	3		

COMMUNITY-BASED ACTION PLAN FOR _____

Using the information and analysis from previous sections, we now turn our attention to the future and create action plans for each natural hazard and climate risk identified with the community. Complete a separate action plan for each natural hazards and climate risk.

PART 1: OVERVIEW

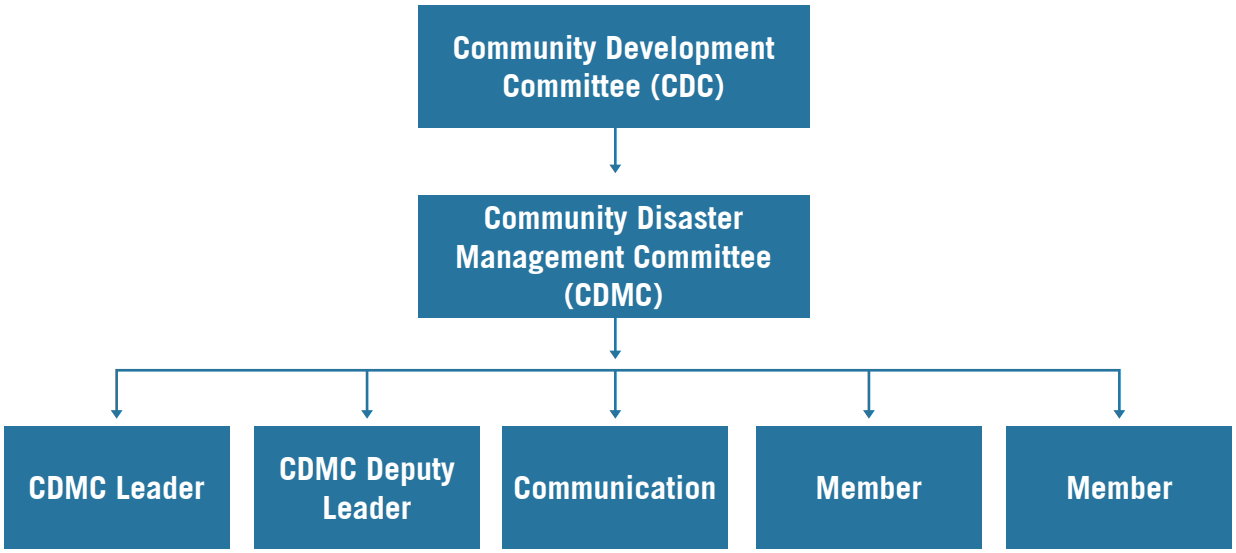
COMMUNITY NAME	*Insert name of community*
PROVINCE & DISTRICT	*Insert province and district*
HAZARD	*Name the hazard covered in this action plan*
TIMEFRAME	*When does this hazard tend to occur?*
FREQUENCY	*How frequently does this hazard occur?*
AREAS IMPACTED	*What areas of the community are impacted by this hazard? How are they impacted?*
PERSONS IMPACTED	*What groups of persons are impacted by this hazard? How are they impacted?*
ASSETS IMPACTED	*What assets are impacted by this hazard? How are they impacted?*
COPING MECHANISMS	*How does the community withstand the shocks of this hazard? What coping mechanisms are employed?*
PAST CLIMATE TRENDS	*Have there been any changes in the frequency, severity, timing, impacts of the hazard over recent decades?*
FUTURE CLIMATE IMPACTS	*Based on climate change projections, what future climate change impacts are likely? How will this change the hazard and its impact on the community?*

PART 2: ACTION PLANNING			
TIMEFRAME	**ACTION** *[The specific actions to address this hazard]*	**RESPONSIBLE ACTORS** *[The institutions/persons that are involved]*	**RESOURCES NEEDED** *[The financial, technical, capacity, etc. resources needed for this action]*
Emergency Response	1		
	2		
	3		
Short (0.5-1 year)	1		
	2		
	3		
Medium (1-3 years)	1		
	2		
	3		
Long (3-5 years)	1		
	2		
	3		

Annex A: Community Disaster Management Committee (CDMC) Members and Contact Details

#	NAME	FATHER'S NAME	POSITION	CORE FUNCTION	PHONE NUMBER
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

Include an organogram of the CDMC to show relationships between positions and decision-making



Annex B: Emergency Contact List

#	NAME	FATHER'S NAME	POSITION	CORE FUNCTION	PHONE NUMBER
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

Annex C: Emergency Response Tools in Community

A) SEARCH AND RESCUE					
#	TOOL	QUANTITY	CONDITION	PROVIDED BY	DATE
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

B) FIRST AID					
#	TOOL	QUANTITY	CONDITION	PROVIDED BY	DATE
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

C) EARLY WARNING					
#	TOOL	QUANTITY	CONDITION	PROVIDED BY	DATE
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

4

KEY TERMINOLOGY

Acceptable Risk:
The level of potential losses that a society or community considers acceptable given existing social, economic, political, cultural, technical and environmental conditions (UNISDR, 2009 Terminology of Disaster Risk Reduction).

Biodiversity:
Biological diversity means the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems (UNCBD, Article 2).

Capacity:
The combination of all the strengths, attributes and resources available within a community, society or organization that can be used to achieve agreed goals. Capacity may include infrastructure and physical means, institutions, societal coping abilities, as well as human knowledge, skills and collective attributes such as social relationships, leadership and management. Capacities are the positive factors that increase the ability of people and the society they live in, to cope effectively with hazards, that increase their resilience, or that otherwise reduce their susceptibility to disasters (UNISDR, 2009 Terminology of Disaster Risk Reduction).

Climate Change:
A change in the state of the climate that can be identified by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer. Climate change may be due to natural internal processes or external forces, or to persistent anthropogenic changes in the composition of the atmosphere or in land use. In other words, a change in the climate that persists for decades or longer, arising from either natural causes or human activity (UNISDR, 2009 Terminology of Disaster Risk Reduction).

Climate Change Adaptation:
The adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities. Various types of adaptation exist, e.g. anticipatory and reactive, private and public, and autonomous and planned (IPCC, 2012).

Climate Variability:
Variations in the mean state and other statistics (such as standard deviations, the occurrence of extremes, etc.) of the climate on all spatial and temporal scales beyond that of individual weather events. Variability may be due to natural internal processes within the climate system (internal variability), or to variations in natural or anthropogenic external forcing (external variability) (IPCC, 2012).

Coping Capacity:
The ability of people, organizations and systems, using available skills and resources, to face and manage adverse conditions, emergencies or disasters. This capacity may differ according to demography, location, gender and other factors. The capacity to cope requires continuing awareness, resources and good management, both in normal times as well as during crises or adverse conditions. Coping capacities contribute to the reduction of disaster risks (UNISDR, 2009 Terminology of Disaster Risk Reduction).

Disaster:
A serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources. Disasters are often described as a result of the combination of: the exposure to a hazard; the conditions of vulnerability that are present; and insufficient capacity or measures to reduce or cope with the potential negative consequences (UNISDR, 2009 Terminology of Disaster Risk Reduction).

Disaster Risk:
The potential disaster losses, in lives, health status, livelihoods, assets and services, which could occur to a particular community or a society over some specified future time period (UNISDR, 2009 Terminology of Disaster Risk Reduction).

Disaster Risk Management:
The systematic process of using administrative directives, organizations, and operational skills and capacities to implement strategies, policies and improved coping capacities in order to lessen the adverse impacts of hazards and the possibility of disaster (UNISDR, 2009 Terminology of Disaster Risk Reduction).

Disaster Risk Reduction:
The concept and practice of reducing disaster risks through systematic efforts to analyse and manage the causal factors of disasters, including through reduced exposure to hazards, lessened vulnerability of people and property, wise management of land and the environment, and improved preparedness for adverse events (UNISDR, 2009 Terminology of Disaster Risk Reduction).

Early Warning System:
The set of capacities needed to generate and disseminate timely and meaningful warning information to enable individuals, communities and organizations threatened by a hazard to prepare and to act appropriately and in sufficient time to reduce the possibility of harm or loss (UNISDR, 2009 Terminology of Disaster Risk Reduction).

Ecosystem:
A dynamic complex of micro-organism, plant, animal and human communities and their non-living environment interacting as a functional unit (Millennium Ecosystem Assessment, 2005).

Ecosystem Services:
The benefits that people and communities obtain from ecosystems. These include "regulating services" such as regulation of floods, drought, land degradation and disease, along with "provisioning services" such as food and water, "supporting services" such as soil formation and nutrient cycling, and "cultural services" such as recreational, spiritual, religious and other non-material benefits. Integrated management of land, water and living resources that promotes conservation and sustainable use provide the basis for maintaining ecosystem services, including those that contribute to reduced disaster risks (Millennium Ecosystem Assessment, 2005; UNISDR, 2009 Terminology of Disaster Risk Reduction).

Emergency Management:
The organization and management of resources and responsibilities for addressing all aspects of emergencies, in particular preparedness, response and initial recovery steps (UNISDR, 2009 Terminology of Disaster Risk Reduction).

Environment:
The complex of physical, chemical, and biotic factors (such as climate, soil, and living things) that act upon individual organisms and communities, including humans, and ultimately determine their form and survival. It is also the aggregate of social and cultural conditions that influence the life of an individual or community. The environment includes natural resources and ecosystem services that comprise essential life-supporting functions for humans, including clean water, food, materials for shelter, and livelihood generation (WWF –US and American Red Cross, 2010).

Environmental Degradation:
The reduction of the capacity of the environment to meet social and ecological objectives and needs. Degradation of the environment can alter the frequency and intensity of natural hazards and increase the vulnerability of communities. The types of human-induced degradation are varied and include land misuse, soil erosion and loss, desertification, wildland fires, loss of biodiversity, deforestation, mangrove destruction, land, water and air pollution, climate change, sea level rise and ozone depletion (UNISDR, 2009 Terminology of Disaster Risk Reduction).

Exposure:
People, property, systems, or other elements present in hazard zones that are thereby subject to potential losses. Measures of exposure can include the number of people or types of assets in an area (UNISDR, 2009 Terminology of Disaster Risk Reduction).

Greenhouse Gases (GHGs):
Gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and emit radiation of thermal infrared radiation emitted by the Earth's surface, the atmosphere itself, and by clouds (UNISDR, 2009 Terminology of Disaster Risk Reduction).

Hazard:
A dangerous phenomenon, substance, human activity or condition that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage. Hazards arise from a variety of geological, meteorological, hydrological, oceanic, biological, and technological sources, sometimes acting in combination. Natural hazards are natural processes or phenomena, such as earthquakes, droughts and tropical cyclones, but their occurrence and scale of impact are often influenced by human-induced activities such as inappropriate land use, poor building codes and environmental degradation (UNISDR, 2009 Terminology of Disaster Risk Reduction; Estrella and Saalismaa, 2010).

Land-use Planning:
The process undertaken by public authorities to identify, evaluate and decide on different options for the use of land, including consideration of long term economic, social and environmental objectives and the implications for different communities and interest groups, and the subsequent formulation and promulgation of plans that describe the permitted or acceptable uses (UNISDR, 2009 Terminology of Disaster Risk Reduction).

Mitigation:
The lessening or limitation of the adverse impacts of hazards and related disasters (UNISDR, 2009 Terminology of Disaster Risk Reduction)

Natural Resource:
Natural resources are actual or potential sources of wealth that occur in a natural state, such as timber, water, fertile land, wildlife and minerals. A natural resource qualifies as a renewable resource if it is replenished by natural processes at a rate comparable to its rate of consumption by humans or other users. A natural resource is considered non-renewable when it exists in a fixed amount, or when it cannot be regenerated on a scale comparative to its consumption (Estrella and Saalismaa, 2010).

Preparedness:
The knowledge and capacities developed by governments, professional response and recovery organizations, communities and individuals to effectively anticipate, respond to, and recover from, the impacts of likely, imminent or current hazard events or conditions (UNISDR, 2009 Terminology of Disaster Risk Reduction).

Resilience:
The ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions. Resilience means the ability to “resile from” or “spring back from” a shock. The resilience of a community in respect to potential hazard events is determined by the degree to which the community has the necessary resources and is capable of organizing itself both prior to and during times of need (UNISDR, 2009 Terminology of Disaster Risk Reduction). We can also consider resilience as the “ability to bounce forward”, which implies not just returning to the initial state as before a shock but improving from that initial state (Manyena et al., 2011).

Risk:
The combination of the probability of an event and its negative consequences (UNISDR, 2009 Terminology of Disaster Risk Reduction).

Sustainable Development:
Development that meets the needs of the present without compromising the ability of future generations to meet their own needs (UNISDR, 2009 Terminology of Disaster Risk Reduction).

Sustainable Ecosystem:
Imply that ecosystems are largely intact and functioning, and that human demand for ecosystem services does not impinge upon the capacity of ecosystems to maintain future generations. (Sudmeier-Rieux, K. and N. Ash, 2009).

Vulnerability:
The characteristics and circumstances of a community, system or asset that make it susceptible to the damaging effects of a hazard. Vulnerability arises from various physical, social, economic, and environmental factors, such as poor design and construction of buildings, inadequate protection of assets, lack of public information and awareness, limited official recognition of risks and preparedness measures, and disregard for wise environmental management. The losses caused by a hazard will be proportionally much greater for more vulnerable populations, e.g. those living in poverty, with weak structures, and without adequate coping capacities (UNISDR, 2009 Terminology of Disaster Risk Reduction).

5

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ACRONYMS

AMD	Afghanistan Meteorological Department
ANDMA	Afghanistan National Disaster Management Authority
ANPDF	Afghanistan National Peace and Development Framework
APAN	Asia Pacific Adaptation Network
CBDP	Community-based Disaster Preparedness
CDC	Community Development Council
CDP	Community Development Plan
CDKN	Climate and Development Knowledge Network
CSO	Central Statistics Organization
CTCN	Climate Technology Centre and Network
DDMC	District Disaster Management and Response Committees
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
EWS	Early Warning System
FEWS NET	Famine Early Warning System Network
GHG	Greenhouse Gas
HCDM	High Commission for Disaster Management
INC	Initial National Communication under the UNFCCC
IWRM	Integrated Water Resource Management
LDC	Least Developed Country
LEDS	Low Emission Development Strategies
MAIL	Ministry of Agriculture, Irrigation, and Livestock
MEA	Multilateral Environmental Agreement
MRRD	Ministry of Rural Rehabilitation and Development
NEPA	National Environmental Protection Agency
NGO	Non-governmental Organization
PDMC	Provincial Disaster Management and Response Committees
RCP	Representative Concentration Pathway
SCCF	Special Climate Change Fund
SCWAM	Supreme Council for Water Affairs Management
SDG	Sustainable Development Goals
SEAC	Sub-national Environmental Advisory Council
SFDRR	Sendai Framework for Disaster Risk Reduction
SNAP	Strategic National Action Plan for Disaster Risk Reduction
SNC	Second National Communication under the UNFCCC
UNCBD	United Nations Convention on Biological Diversity
UNCCD	United Nations Convention to Combat Desertification
UNFCCC	United Nations Framework Convention on Climate Change
USGS	United States Geological Survey