

6.0 Nepal

ADB	Asian Development Bank
BMZ	German Federal Ministry for Economic Cooperation and Development
DFID	Department for International Development (United Kingdom)
GLOF	Glacial lake outburst flood
FAO	Food and Agriculture Organisation
LAPA	Local Adaptation Plans of Action
NAPA	National Adaptation Programme of Action
NCVST	Nepal Climate Vulnerability Study Team
MFA	Ministry of Foreign Affairs
MOE	Ministry of Environment
MOEST	Ministry of Science and Technology
PPCR	Pilot Program on Climate Resilience
SPCR	Strategic Program on Climate Resilience
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNITAR	United Nations Institute for Training and Research
USAID	United States Agency for International Development
WWF	World Wildlife Fund

Nepal is a land-locked country located in the central Himalayas and has a lateral span of less than 200 kilometers. Nepal is one of the poorest countries in the world, with nearly 70 per cent of the population living on less than US\$2 per day (MOE, 2010). Approximately 85 per cent of Nepalese depend on agriculture for their livelihoods, and agriculture is the largest contributor to Gross Domestic Product. The country also benefits from a large tourism sector.

A. Adaptation Needs and Priorities

Nepal's current climate varies along with its topography, ranging from tropical to alpine conditions, and is shaped by the Himalayan mountain range as well as the South Asian monsoon. The country experiences four seasons: pre-monsoon from March to May; monsoon season from June to September; post-monsoon from October to November; and winter from December to February (MOE, 2010). Because of its geographic location and topographic variability (from plains of the Terai to the high peaks of the Himalayas), it is difficult to predict how climate change will unveil itself in Nepal. The challenge posed by these physical features is made more complex by a lack of sound scientific data. Like its neighbor Bhutan, Nepal has few weather stations and a shorter duration of reliable records in comparison to other countries (the upper Himalaya region is essentially a data white-spot). As a result, it is difficult to set a baseline and predict how basic climatic parameters such as temperature and precipitation will change over time.

With these caveats in mind, the general conclusion based on Global Circulation Models as well as Regional Circulation Models is that average temperatures will increase over all of Nepal and that monsoon precipitation will increase. The pattern of increase will vary significantly across the country and local level predictions available now are not very reliable.¹⁵⁸ Nepal's recently prepared National Adaptation Programme of Action (NAPA) notes that a recent study employing Global and Regional Circulation Models projects that mean annual temperatures in Nepal will increase by 1.4°C by 2030, 2.8°C by 2060, and 4.7°C by 2090 (MOE, 2010). Precipitation projections foresee no change in western areas of the country, but up to a 5 to 10 per cent increase in eastern Nepal during winter months. In the summer months, precipitation is projected to increase for the entire country by 15 to 20 per cent (MOE, 2010).

This high level of uncertainty in and of itself is a strong reason for Nepal to act now to increase its adaptive capacity. As it faces many risks similar to those that need to be addressed by northern Indian states (Himachal for example) as well as Bhutan, there are also opportunities for regional cooperation. Common areas of concern include unpredictable monsoons, more extreme wet and dry spells, GLOFs, and more severe floods and droughts. Being a mountainous country, the risk of landslides and loss of top soil (especially from hill slopes) will also increase due to degradation of forests and faster surface runoff. Experiences from the recent past corroborate these predictions (NCVST, 2009b).

Nepal's NAPA discusses the following vulnerabilities to climate change by priority sector (MOE, 2010):

- *Agriculture and food security*: Nepal's subsistence farming economy is at considerable risk to changes in precipitation, rising temperatures, flooding and erratic monsoon rainfall;

¹⁵⁸ Technical details and summaries can be found in NCVST (2009a).

- *Water resources and energy*: climate-related water stress directly impacts agricultural productivity, malnutrition, human health and sanitation, and changes in river flow may directly impact micro-hydro projects in the hills and mountains;¹⁵⁹
- *Climate-induced disasters*: Nepal is currently exposed to a number of hydro-meteorological disasters, and this may be exacerbated in the future with climate change;
- *Forests and biodiversity*: increased temperatures and rainfall variability may lead to shifts in agro-ecological zones;
- *Public health*: possible increase in vector-borne and water-borne infectious diseases, including an increased risk of malaria and kala-azar;
- *Urban settlements and infrastructure*: climate change is anticipated to impact infrastructure including roads, bridges, community and public buildings, and schools. Impacts are expected to be concentrated around urban water and energy resources, and may also affect human health.

B. National Level Policies and Strategic Documents

The Initial National Communication to the United Nations Framework Convention on Climate Change (UNFCCC) completed by Nepal in 2004 set the context for its future adaptation efforts, highlighting its vulnerability and indicating the need for a comprehensive response plan. In 2008, it launched its NAPA development process, which was completed in 2010.

Nepal was one of the last countries to develop its NAPA, and as such has been able to learn lessons from processes in other countries. It has sought to establish a vertical linkage between the national-scale, top-down assessments of current and future climate risks, with bottom-up assessments from community members themselves—informed by local knowledge and geographical specificity. In particular, community level feedback were collected in the form of Local Adaptation Plans of Action (LAPAs), which will inform local and regional sector policies as well as the national level NAPA. Given Nepal's geographic and ethnic diversity, such a grassroots approach appears to be a pre-requisite for ensuring not only sufficient ownership and engagement but also flow of resources from the center to the communities who are at the front line of climate change.

¹⁵⁹ Approximately 90 per cent of Nepal's electricity production is derived from hydropower, with over 85 per cent of the population relying on traditional biomass (MOE, 2010).

Table 2: Key Government Policies and Reports reflecting Adaptation Needs, Priorities and Planned Actions

Name of Policy Action		Government Division Responsible	Status	Sector(s) of Focus	Summary description
1.	Initial National Communication to the UNFCCC	Ministry of Population and Environment	Released in 2004	Agriculture, freshwater supply, forestry, human health	Presents Nepal's greenhouse gas emission inventory, discusses mitigation options, identifies key vulnerabilities and adaptation options, and policies and measures to address climate change.
2.	National Adaptation Programme of Action ¹⁶⁰	Ministry of Environment	Released in 2010	Agriculture, freshwater supply, disaster risk management, forestry, human health, urban areas	Provides: an introduction to the country's national circumstances, geography, and national development; impacts of climate change by key area; NAPA preparation process; and identifies key needs, existing practices, and options.

C. Current Adaptation Action

There are a moderate number of ongoing adaptation projects and programs in Nepal compared to other South Asian countries, including nationally focused activities as well as those involving countries from within and outside of the Asia region. These activities are primarily focused on the areas of water, policy formulation, and risk reduction, with certain initiatives addressing the need for improved meteorological information, as well as the fields of communication, agriculture and nature. Main funders in Nepal are the Asian Development Bank, European Commission, World Bank, the World Wildlife Fund (WWF) and the Governments of Norway, Switzerland, the United Kingdom and the United States Agency for International Development.¹⁶¹

Table 3: Current Adaptation Projects and Programs active in Nepal

Name	Objectives	Funder(s)	Implementing Agency(s)	Type of project	Duration	Priority Sector(s)	Geographic focus (if any)
National Action							
1.	Strengthening Climate Network in Nepal ¹⁶²	This project is tended to strengthen the institutional capacity of NGOs and to build a climate network at the national level for raising awareness and advocacy on climate	Development Fund, Norway	Local Initiatives for Biodiversity, Research and	Capacity building; Knowledge sharing	2008 – 2010	Civil society Nepal

¹⁶⁰ UNFCCC, <http://unfccc.int/resource/docs/napa/npl01.pdf>

¹⁶¹ The United States has announced plans to invest USD 3 million in Nepal's capacity to adapt to the impacts of climate change, but the specific of this investment are not yet clear. Further information available here: <http://www.state.gov/documents/organization/151761.pdf>

¹⁶² Local Initiatives for Biodiversity, Research and Development, http://www.libird.org/index.php?option=com_content&task=view&id=330&Itemid=39

Name	Objectives	Funder(s)	Implementing Agency(s)	Type of project	Duration	Priority Sector(s)	Geographic focus (if any)	
	change. Activities include: support development of Nepal's NAPA; establish Climate Change Information Resource Centre; and build an information database management system to establish information on climate scenarios, impacts, vulnerable sectors, communities and priorities for community based actions.			Development				
2.	Strengthening Capacity for Managing Climate Change and Environment: Nepal ¹⁶³	A new and improved, institutional framework for managing climate change and the environment with sustainable finance agreed upon by the Government. This will involve establishing a new organizational framework, creating a sustainable funding mechanism, and heightening awareness among stakeholders. This project will call for local government units to assess vulnerability, map the risks, and plan adaptation interventions.	ADB, Gov't of Nepal Budget: US\$1.28 million	Ministry of Environment, Science and Technology (MOEST)	Research; Assessment; Policy formation and integration; Capacity building	2008 – 2010	Government	Nepal
3.	Strengthening Capacities for Disaster Preparedness and Climate Risk Management in the Nepalese Agriculture Sector ¹⁶⁴	The project aims to: 1) Enhancing technical capacity within the Department of Agriculture for climate change adaptation and disaster risk management in agriculture; 2) Strengthen basic support services for climate change adaptation and disaster risk management in agriculture sector in two selected pilot districts; 3) Demonstration of prioritized location specific technologies for climate change adaptation and disaster risk management	FAO	Ministry of Agriculture and Cooperatives, Department of Agriculture, Nepal Agriculture Research Council	Capacity building; Field implementation	2008 – 2010	Disaster risk management; Agriculture	Rural areas, Nepal

¹⁶³ ADB, <http://www.adb.org/climate-change/strengthening-capacity-for-managing-cc.asp>

¹⁶⁴ ALM, <http://www.adaptationlearning.net/project/strengthening-capacities-disaster-preparedness-and-climate-risk-management-nepalese-agricult>

Name	Objectives	Funder(s)	Implementing Agency(s)	Type of project	Duration	Priority Sector(s)	Geographic focus (if any)
	within the agriculture sector through a participatory learning by doing process at district and community levels. 4) Economic impact analysis of adaptation interventions, lessons learned and policy implications.						
4. Implementing Climate Change Adaptation in Nepal ¹⁶⁵	This project aims to increase resilience of communities vulnerable to climate change, by combining local indigenous knowledge and scientific knowledge of people living inside and around the protected areas in Nepal.	WWF-Nepal	WWF	Capacity building; Knowledge communication	2009 – 2011	Rural areas	Langtang National Park and Buffer Zone, Nepal
5. Nepal Climate Change Support Programme ¹⁶⁶	Develop a strategic framework of action on climate change behind which stakeholders can align response (with a focus on biodiversity)	UK <i>Budget:</i> GBP 10,891,256	Government	Policy formation and integration	2009 – 2015	Government; Biodiversity	Nepal
6. Community Based Vulnerability Assessment , Risk Mapping, and Adaptation Planning ¹⁶⁷	This project will fund a study to complement Nepal's ongoing NAPA projects. The impact of the study will be to strengthen the capacity of Nepal to manage its environment and climate change through an improved institutional framework. The study will develop local models through in-country assessments of downscaled national climate change projections, and develop tools for community-based vulnerability assessment. Planning tools for District Development Committees and Village Development Committees to assess climate change	ADB <i>Budget:</i> US\$267,000	Ministry of Environment, Science and Technology, Practical Action, WWF-Nepal, International Union for Conservation of Nature and National Association of	Research; Assessment; Policy formation and integration; Capacity building	2010 – 2011	Rural areas	Rasuwa in Mountain eco-zone, Dhanakuta in Hill Eco-zone, Nawalparasi in Foothill eco-zone, & Dhanusha in Terai eco-zone

¹⁶⁵ WWF, http://www.wfnepal.org/our_solutions/projects/index.cfm?uProjectID=NP0909

¹⁶⁶ DFID, <http://projects.dfid.gov.uk/project.aspx?Project=201129>

¹⁶⁷ <http://www.ceci.ca/en/where-we-work/asia/nepal/community-based-vulnerability-risk-mapping-and-adapatation-planning/>

Name	Objectives	Funder(s)	Implementing Agency(s)	Type of project	Duration	Priority Sector(s)	Geographic focus (if any)	
	vulnerability, map the risks, and plan for adaptation interventions also were designed.		VDCs in Nepal					
7.	Supporting Government Planning in Building Climate Resilience ¹⁶⁸	ADB / World Bank (Strategic Climate Fund) Budget: US\$225,000	MOEST	Policy formation and integration	2010 – ?	Government	Nepal	
Participation in Regional and Global Projects								
8.	Floods from the Roof of the World: Protection thanks to applied research ¹⁶⁹	The project seeks to protect people and infrastructure from the hazards of GLOFs. Based on previous fundamental research, the countries of Nepal, Bhutan, India, Pakistan and China/Tibet now have an inventory of glaciers and glacier lakes as well as a GLOF monitoring system. The data gathered is used as the basis for early-warning systems. This enables priorities to be set and corresponding action to be taken. The database is also used to determine the amount of total available water resources the region will have in the future.	Swiss Development Corporation	ICIMOD	Community based adaptation; Research	Phase One: 1999 – 2007 Phase Two: 2008 – 2012	Disaster risk management	Regional: China/Tibet, Bhutan, India, Nepal, Pakistan
			<i>In Nepal:</i> Further information required.					
9.	Monitoring the Glaciers of the Himalayas ¹⁷⁰	Glacier retreat has been a major indicator of climate change impacts in the Himalayas. This project aims to support biodiversity conservation and livelihoods of people affected by glacier retreat. The main	WWF		Research; Community based adaptation	2005 – 2009	Biodiversity; Ecosystem conservation	Regional: Eastern Himalayas, Nepal and India

¹⁶⁸ ADB, <http://pid.adb.org/pid/TaView.htm?projNo=44117&seqNo=01&typeCd=2>

¹⁶⁹ SDC, http://www.sdc.admin.ch/en/Home/Projects/Floods_from_the_Roof_of_the_World

¹⁷⁰ WWF, http://www.wwfnepal.org/our_solutions/projects/index.cfm?uProjectID=NP0898

Name	Objectives	Funder(s)	Implementing Agency(s)	Type of project	Duration	Priority Sector(s)	Geographic focus (if any)
	objectives of the project are documentation of threats posed due to glacier retreat as well as development of community driven programs for improving their resilience.	<i>In Nepal:</i> Further information required.					
10.	Management of Flash Floods: Capacity building and awareness raising in the Hindu Kush Himalayas ¹⁷¹	USAID	ICMOD	Capacity building	Phase I: 2006 – 2007 Phase II: 2008 – 2010	Disaster risk management	Asia Region: China, Nepal, Pakistan
		<i>In Nepal:</i> Further information required.					
11.	Advancing Capacity for Climate Change Adaptation (ACCCA) ¹⁷²	IDRC, DEFRA, Switzerland, NCAP, European Commission	UNITAR	Assessment; Capacity building; Policy formation and integration	2007 – 2010	Multi-sectoral	Global: 17 countries ¹⁷³ including: Bangladesh, India, Nepal
		<i>In Nepal:</i> The ACCCA program funded a project entitled “Application of Community Based Adaptation Measures to Weather Related Disasters in Western Nepal: Preparation for the potential climate change signal.” The project aimed to implement the concept of collective disaster insurance as a loss sharing measure for adaptation and to establish communication about weather forecasts to minimize losses through Community Based Disaster Preparedness Units. The project strengthened communication between national weather forecast systems and local communities in the units.					
12.	Adaptation to Climate Change in the Hindu Kush Himalayas and Central Asia ¹⁷⁴	Norway (through UNEP) Budget:	Center for International Climate and Environmental Research,	Research; Policy formation and integration	2007 – 2011	Climate information services; Biodiversity; Agriculture	Asia Region: China, India, Nepal, Pakistan

¹⁷¹ ICIMOD, <http://www.icimod.org/?q=258>

¹⁷² Further information available here: http://www.acccaproject.org/accca/files/ACCCA_Brochure_19pilotactions.pdf

¹⁷³ These countries are: Bangladesh, Burkina Faso, Cameroon, Ethiopia, Ghana, Kenya, India, Malawi, Mali, Mongolia, Nepal, Niger, Nigeria, Philippines, South Africa, Tanzania and Tunisia.

¹⁷⁴ ALM, <http://www.adaptationlearning.net/reasearch/too-much-too-little-water-adaptation-climate-change-hindu-kush-himalayas-and-central-asia>

Name	Objectives	Funder(s)	Implementing Agency(s)	Type of project	Duration	Priority Sector(s)	Geographic focus (if any)	
	<ul style="list-style-type: none"> Improved scenarios for climate change variation and impacts; Scenarios for water demand and availability; Improved knowledge on climate change effects on biodiversity and ecosystem services; Improved understanding of impacts on agro-ecology and food production systems and food security; Critical factors for achieving sustainable adaptation. 	US\$62 million	UNEP, International Centre for Integrated Mountain Development, national governments					
<i>In Nepal: Further information required.</i>								
13.	Capacity Development for Policy Makers: Addressing climate change in key sectors ¹⁷⁵	<p>The project is a targeted capacity development initiative that supports two goals: 1. To increase national capacity to coordinate Ministerial views for more effective participation in the UNFCCC process; and 2. To assess investment and financial flows to address climate change for selected key sectors. As a result of this project, both the technical understanding of key climate change issues and their economic and policy implications within the context of the Convention will be enhanced.</p>	<p>UNDP, UN Foundation, Government of Norway, Government of Finland, and Government of Switzerland</p> <p>Budget: US\$6,953,413</p>	UNDP	Capacity building; Policy formation and integration	2008 – 2010	Government	<p>Global: 19 countries¹⁷⁶ including: Bangladesh and Nepal</p>
<i>In Nepal: Further information required.</i>								
14.	Protection of Sustainable Policy Initiatives in the Management of Natural	The program strengthens the role of International Centre for Integrated Mountain Development (ICIMOD) as an organization	BMZ	GIZ, ICIMOD	Capacity building	2008 – 2012	Government	<p>Asia Region: Afghanistan, Bangladesh,</p>

¹⁷⁵ UNDP, <http://www.undp.org/climatechange/capacity-development.html>

¹⁷⁶ These countries are: Algeria, Bangladesh, Colombia, Costa Rica, Dominican Republic, Ecuador, Gambia, Honduras, Liberia, Namibia, Nepal, Nicaragua, Niger, Paraguay, Peru, Saint Lucia, Togo, Turkmenistan and Uruguay.

Name	Objectives	Funder(s)	Implementing Agency(s)	Type of project	Duration	Priority Sector(s)	Geographic focus (if any)
Resources in the Hindu Kush Himalayas ¹⁷⁷	and service provider in the region, and increases the accountability of the eight member countries. It helps develop and implement regionally agreed concepts and strategies to facilitate adaptation to climate change and sustainable resource management. This is realized by institutional strengthening of ICIMOD in areas such as data collection related to climatic changes and forests. GIZ further promotes the ICIMOD priority program Environmental Change and Ecosystem Services.						Bhutan, China, India, Myanmar, Nepal, Pakistan
<i>In Nepal:</i> Further information required.							
15. Pilot Program for Climate Resilience ¹⁷⁸	PPCR aims to pilot and demonstrate ways in which climate risk and resilience may be integrated into core development planning and implementation in a way that is consistent with poverty reduction and sustainable development goals. In this way, the PPCR provides incentives for scaled-up action and initiates transformational change. The pilot programs and projects implemented under the PPCR are country-led, build on NAPAs and other relevant country studies and strategies.	World Bank's Strategic Climate Fund Budget: \$971.75 million pledged as of February 2011	World Bank	Policy formation and integration	2008 – present	Multi-sectoral	<i>Global:</i> <i>Regional Programs:</i> Caribbean and Pacific <i>Country programs:</i> Bangladesh, Bolivia, Cambodia, Mozambique, Nepal, Niger, Tajikistan, Yemen, Zambia
<i>In Nepal:</i> The PPCR has provided funding to Nepal to build climate resilience of watersheds in mountain regions, build resilience to climate related hazards, and build climate resilient communities through private sector participation.							

¹⁷⁷ GIZ, <http://www.gtz.de/en/weltweit/asien-pazifik/33473.htm>

¹⁷⁸ PPCR, <http://www.climatefundsupdate.org/listing/pilot-program-for-climate-resilience>

Name	Objectives	Funder(s)	Implementing Agency(s)	Type of project	Duration	Priority Sector(s)	Geographic focus (if any)
16. Integrating Climate Change Mitigation and Adaptation into Development Planning (CCMAP) project ¹⁷⁹	START and its partners are engaging scientists and policy makers in West Africa, East Africa and South Asia in a range of activities that aim at raising awareness and improving access to scientific information, so that decision-makers can better integrate climate change issues in development planning and poverty reduction measures. The activities include national science-policy dialogues, regional knowledge assessments, regional knowledge sharing strategies, and regional trainings. It also includes assessments of climate change risk to agriculture in nine urban and peri-urban areas.	European Commission; UNEP; USAID	START with WMO, IPCC, UNEP, University of Dar es Salaam, University of Ghana, and the Bangladesh Centre for Advanced Studies	Capacity building; Assessment; Policy formation and integration	2009 – 2010	Government; Agriculture; Urban areas; Peri-urban areas	<i>Global:</i> Bangladesh, Bhutan, Burundi, Ghana, Nepal, Nigeria, Rwanda, Senegal, Tanzania
<i>In Nepal:</i> Further information required.							
17. Adaptation Knowledge Platform ¹⁸⁰	The goal of the Adaptation Knowledge Platform is to strengthen adaptive capacity and facilitate climate change adaptation in Asia at local, national and regional levels. Its specific purpose is to establish a regionally and nationally owned mechanism that facilitates the integration of climate change adaptation into national and regional economic and development policies, processes and plans, strengthen linkages between adaptation and the sustainable development agenda in the region and enhance institutional and research capacity, in collaboration with a wide range of national and regional partners.	SIDA	SEI, SENA, UNEP, AIT and UNEP Regional Resource Centre for Asia and the Pacific	Capacity building; Policy formation and integration	2009 – 2012	Government	<i>Asia:</i> Bangladesh, Bhutan, Cambodia, China, Indonesia, Lao PDR, Malaysia, Myanmar, Nepal, the Philippines, Sri Lanka, Thailand, Viet Nam
<i>In Nepal:</i> Further information required.							

¹⁷⁹ START, <http://start.org/programs/ccmap>

¹⁸⁰ AKP, <http://www.climateadapt.asia/>

Name	Objectives	Funder(s)	Implementing Agency(s)	Type of project	Duration	Priority Sector(s)	Geographic focus (if any)
18. South Asia Water Initiative ¹⁸¹	Working with DFID and the World Bank, the South Asia Water Initiative is building capacity for water resource management to address serious water availability issues in Himalayan watershed countries of Afghanistan, Bangladesh, Bhutan, India, Nepal and Pakistan.	DFID, Australia, Norway Budget: US\$9.6 million	World Bank (lead); regional and national bodies	Capacity building; Policy formation and integration	2009 – 2013	Freshwater supply	Regional: Afghanistan, Bangladesh, Bhutan, India, Nepal and Pakistan
<i>In Nepal:</i> Further information required.							
19. Cities and Climate Change Initiative Asia Pacific ¹⁸²	This initiative aims to strengthen the climate change response of cities and local governments. The main objectives are to: promote active climate change collaboration between local governments and associations; to enhance policy dialogue on climate change; to support local governments in preparing climate action plans; and to foster awareness, education and capacity building. The regional strategy in Asia-Pacific aims to support city level climate change adaptation and mitigation action with support for revised urban plans; support for a national climate change and urban policy review; and support the setting up of Asia-Pacific-wide advocacy, knowledge management and capacity development institutions.	UN-Habitat Budget: US\$10 million	Local governments, universities	Capacity building; Knowledge communication; Policy formation and integration	2010 – ?	Urban areas	Asia Region: China, Fiji, Indonesia, Mongolia, Nepal, Papua New Guinea, Samoa, Sri Lanka, Vanuatu, Viet Nam
<i>In Nepal:</i> In Kathmandu, this project is enabling an urban vulnerability assessment, planned with a particular emphasis on water security and hydrological systems.							
20. Climate Risk Management Technical Assistance Support Project: Phase II ¹⁸³	Building capacities for climate risk management among national stakeholders.	Sweden and SIDA through UNDP, UNDP	ADPC, International Institute for Sustainable	Research; Policy formation and integration	2010 – 2011	Multi-sectoral	Global: Bangladesh, Bhutan, Dominican

¹⁸¹ UN, http://www.un.org/climatechange/projectsearch/proj_details.asp?projID=182&ck=aVmFG453KHSJI81

¹⁸² CCCI, http://www.fukuoka.unhabitat.org/programmes/ccci/index_en.html

¹⁸³ UNFCCC, http://unfccc.int/files/adaptation/nairobi_workprogramme/partners_and_action_pledges/application/pdf/iisd_furtherinfo_water_190411.pdf

Name	Objectives	Funder(s)	Implementing Agency(s)	Type of project	Duration	Priority Sector(s)	Geographic focus (if any)	
		core finance	Development				Republic, Honduras, India, Kenya, Maldives, Mongolia, Nepal, Nicaragua, Niger, Pakistan, Papua New Guinea, Peru, Timor-Leste and Uganda	
<i>In Nepal: to be determined</i>								
21.	Global Climate Change Alliance ¹⁸⁴	The Global Climate Change Alliance seeks to deepen the policy dialogue between the European Union and developing countries on climate change; and to increase support to target countries to implement priority adaptation and mitigation measures, and integration climate change into their development strategies. The program's five priority areas for funding are: improving the knowledge base of developing countries to the effects of climate change; promoting disaster risk reduction; mainstreaming climate change into poverty reduction development strategies; reducing emissions from deforestation and degradation; and enhancing participation in the Clean	European Commission, Czech Republic, Sweden, 10th European Development Fund <i>Budget:</i> € 140 million	National Governments	Policy formation and implementation; Knowledge communication	2008 – ongoing	Disaster risk management; Government	<i>Global:</i> 17 countries and the Pacific region, ¹⁸⁵ including: Bangladesh, Maldives and Nepal
<i>In Nepal: Further information required.</i>								

¹⁸⁴ GCCA, http://www.gcca.eu/pages/1_2-Home.html

¹⁸⁵ These countries are: Bangladesh, Belize, Cambodia, Ethiopia, Guyana, Jamaica, Maldives, Mali, Mozambique, Mauritius, Nepal, the Pacific Region, Rwanda, Senegal, Seychelles, Solomon Islands, Tanzania and Vanuatu.

Name	Objectives	Funder(s)	Implementing Agency(s)	Type of project	Duration	Priority Sector(s)	Geographic focus (if any)
	Development Mechanism.						
22. Asia Pacific Climate Change Adaptation Project Preparation Facility (ADAPT) ¹⁸⁶	Increase access to financial resources for climate change adaptation investment projects; strengthen national human and institutional capacity in preparation of financing proposals; and strengthen regional knowledge platform to share information and processes on climate change projects, funds and best practices to promote replication and scaling up.	USAID Budget: US\$18.0 million	WWF, Conservation International, the Nature Conservancy, ARD Inc., NOAA	Capacity building; Knowledge communication	2011 – 2016	Government	Asia Region: Bangladesh, Cambodia, Federated States of Micronesia, Fiji, Indonesia, Lao PDR, Malaysia, Nepal, Palau, Philippines, Solomon Islands, Sri Lanka, Thailand, Viet Nam
<i>In Nepal: Further information required.</i>							

D. Proposed Adaptation Action

Nepal’s proposed adaptation actions, listed in Table 3, focus on the areas of water, agriculture, risk reduction, policy formulation, nature, infrastructure, health and urban areas. Given that the country’s NAPA was released in December 2010, the majority of these projects have not yet received funding. An exception is the Asian Development Bank funded project “Community Based Vulnerability Assessment, Risk Mapping, and Adaptation Planning,” which was designed to address NAPA priorities. However, certain ongoing adaptation projects address key objectives identified through the NAPA, as noted in the table below.

¹⁸⁶ USDS, <http://www.state.gov/documents/organization/151686.pdf>

Table 3: Proposed Adaptation Actions as identified in Nepal’s NAPA (MOE, 2010)

	Name	Objectives	Type of project	Priority Sector(s)	Geographic focus (if any)
1.	Promoting community-based adaptation through integrated management of agriculture, water, forest and biodiversity sector	The goal of this project is to increase communities’ resilience in order to enable them to better adapt to climate change by creating livelihoods opportunities through integrated resource management at the watershed level. This would include providing technology, skills and services for increased production and productivity of natural and human capital, promoting sustainable farming practices, promoting community based risk reduction schemes, etc.	Community based adaptation; Policy formation and integration	Agriculture; Freshwater supply; Forestry; Biodiversity	
			Notes: It appears that objectives of this project are being addressed through the DFID funded “Mainstreaming Livelihood Approaches into Disaster Management” project. ¹⁸⁷		
2.	Building and enhancing adaptive capacity of vulnerable communities through improved system and access to services related to agricultural development	The goal of this project is to develop climate change adaptation capacity of vulnerable farmer communities by developing climate resilient agricultural practices. This would include promoting technologies for crop and livestock that address climate risks and uncertainty, and enhance the adaptive capacity of poor communities.	Community based adaptation; Capacity building	Agriculture	
			Notes: The FAO-funded project “Strengthening Capacities for Disaster Preparedness and Climate Risk Management in the Nepalese Agriculture Sector” may address some of these objectives.		
3.	Community-based disaster management for facilitating climate adaptation	The objective of this project is to manage disasters at the community level in order to facilitate climate adaptation. This would include capacity building for climatic hazards, development of infrastructure to minimize hazards and risks, and development of safety nets.	Capacity building; Community based adaptation	Disaster risk management	
			Notes:		
4.	GLOF monitoring and disaster risk reduction	This project is focused on the monitoring of GLOF events to reduce disaster risk. This includes monitoring glacial lakes to reduce potential hazards, and developing appropriate infrastructure and early-warning systems for downstream communities.	Research; Assessment	Disaster risk management	
			Notes:		
5.	Forest and ecosystem management for supporting climate-led adaptation innovations	The goal of this project is to develop community-based innovations to adapt with changing climate and conserve ecosystem services. The project components are capacity	Community based adaptation; Capacity building	Forestry; Ecosystem conservation	

¹⁸⁷ Information about this project being implemented by Practical Action may be found here: <http://practicalaction.org/mainstreaming-livelihood-centred-approaches-to-disaster-mana>

	Name	Objectives	Type of project	Priority Sector(s)	Geographic focus (if any)
		building of forest dependent communities, farmers, and rural populations; assessment of sites for tree plantations; generation of biomass energy; and research and extension of adaptation priorities.	Notes:		
6.	Adapting to climate challenges in public health	This project would focus on climate change adaptation in the public health sector in Nepal, with major components including mapping major communicable diseases and water and food-borne diseases, exploring indigenous knowledge and community practices for health adaptation, and to reduce the impacts of climate change on human health through research and development programs.	Research; Capacity building	Human health	
			Notes:		
7.	Ecosystem management for climate adaptation	The goal of this project is to conserve the ecosystem and promote the ecosystem-based livelihoods of the people living in Western Nepal. This would include rehabilitating degraded areas through improved pasture and rangeland management, conservation of local ecological resources, and enhancing the capacity of communities for sustainable management of resources. This would include the development and implementation of Local Adaptation Plans.	Community based adaptation; Policy formation and integration	Ecosystem restoration	Western Nepal
			Notes: The Norwegian funded project “Adaptation to climate change in the Hindu Kush Himalayas and Central Asia” may address some of the objectives of this project.		
8.	Empowering vulnerable communities through sustainable management of water resource and clean energy supply	The goal of this project is sustainable management of water resources and supply of clean energy, involving the following tasks: monitoring of water resources using a combination of climate proofing, climate risk management, and water use technologies; ensuring the supply of clean energy through developing related technologies and schemes, and enforcing regulatory mechanisms for the sustainable harvesting of water resources.	Assessment; Field implementation	Freshwater supply; Energy	
			Notes: The DFID-funded project “Mainstreaming livelihood centered approaches to disaster management” appears to address some of the objectives of this project.		
9.	Promoting climate smart urban settlements	The objective of this project is to promote climate smart urbanization processes in Nepal through national and local capacity building. This would include developing mechanisms for incorporating climate change into building codes, managing municipal waste and linking it with the clean development mechanism, and enhancing the capacity of related stakeholders	Capacity building; Policy formation and integration	Urban areas	Urban areas, Nepal
			Notes:		

	Name	Objectives	Type of project	Priority Sector(s)	Geographic focus (if any)
		and institutions.			

E. Assessment

Nepal’s NAPA provides an up-to-date overview of the country’s priority adaptation needs. Encouragingly, many ongoing adaptation activities in Nepal are supporting the NAPA’s priorities, as identified in Table 3, primarily in the areas of water, risk reduction, agriculture, nature, and policy formulation. However, gaps in current adaptation action persist. Ongoing activities do not appear to address the issue of vulnerability to climate change in the energy sector, which in Nepal is inextricably linked to the water sector. Opportunities exist for integration of energy considerations into ongoing and future water initiatives. In addition, current adaptation actions do not appear to address the priority needs of forestry, health, infrastructure, and gender implications.

Of the ongoing adaptation activities in Nepal, the Pilot Program on Climate Resilience (PPCR) is anticipated to significantly contribute towards building national capacity and institution, and help develop and implement a Strategic Program for Climate Resilience (SPCR) for Nepal. It will be interesting to note to what extent the PPCR, which has been criticized by civil society in Nepal as a top-down global initiative, manages to achieve its objective vis-à-vis LAPAs driven by the NAPA process. Regardless, as the PPCR generally focuses on identifying more high-priority interventions than what can be supported through country specific allocations, it is therefore possible to piggyback on the SPCR and co-finance projects which can only be partly supported through the PPCR to have large-scale impact. The primary challenge will be to align the SPCR with the NAPA or to demonstrate PPCR’s value addition to Nepal’s nationally-driven process for adaptation.

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