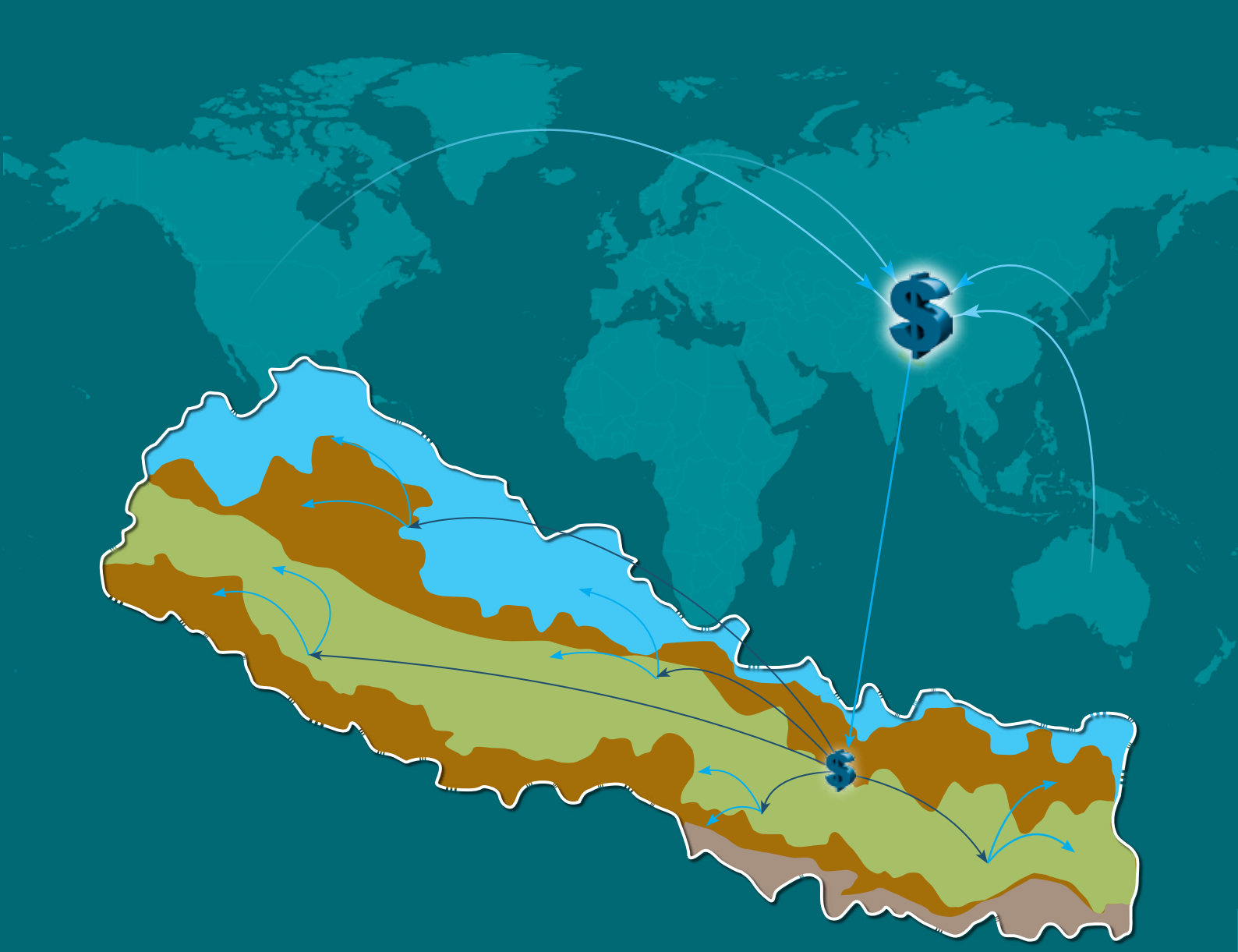

CLIMATE FINANCE

FUND FLOW FROM NATIONAL TO SUB-NATIONAL LEVEL IN NEPAL

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ACRONYMS

ACAP	Annapurna Conservation Area Project
AEPC	Alternative Energy Promotion Centre
AF	Adaptation Fund
AFAI	Adaptation Finance Accountability Initiative
AG	Auditor General
AGO	Auditor General Office
AMP	Aid Management Platform
BMUB	German Federal Ministry for the Environment, Nature Conservation and Building Nuclear Safety
CAPA	Community Adaptation Plan of Action
CARE	Cooperation and Relief Everywhere
CBOs	Community based Organizations
CCBC	Climate Change Budget Code
CDMC	Community Based Disaster Management Committee
CFUG	Community Forest User Group
CEN	Clean Energy Nepal
CFGORRP	Community based Glacial Lake Outburst Risk Reduction Program
CHAL	Chitwan-Annapurna Landscape
CIF	Climate Investment Fund
CO	Controller's Office
CRF	Climate Resilience Framework
DADO	District Agricultural Development Office
DSCO	District Soil Conservation Office
DDC	District Development Committee
DFO	District Forest Office
DDF	District Development Fund
DEECCCC	District Energy and Environment Climate Change Coordination Committee
DFID	Department of International Development
DHM	Department of Hydrology and Meteorology
DLSO	District Livestock Office
DTCO	District Treasury Controller Office
EbA	Ecosystem based Adaptation
FAO	Food and Agricultural Organization
FCGO	Financial Controller General Office
FECOFUN	Federation of Community Forestry Users, Nepal
FGD	Focus Group Discussion
GCCA	Global Climate Change Alliance
GDP	Gross Domestic Product
GEF	Global Environment Facility
GFATM	The Global Fund to Fight AIDS, Tuberculosis and Malaria
GLOF	Glacier Lake Outburst Flooding
GoN	Government of Nepal
ICCA	Initiative for Climate Change Adaptation
INGO	International Non Government Organization
IPCC	Intergovernmental Panel on Climate Change
IPFC	Integrated Plan Formulation Committee
ISET-Nepal	Institute for Social and Environmental Transition-Nepal
IUCN	International Union for Conservation of Nature
KII	Key Informant Interview

LAPA	Local Adaptation Plan of Action
LDCF	Least Developed Countries Fund
LDO	Local Development Officer
LDRMP	Local Disaster Response Management Training
LGIs	Local Government Institutions
LSGA	Local Self Governance Act
M & E	Monitoring and Evaluation
MDO	Machhapuchhre Development Organization
MoF	Ministry of Finance
MoFALD	Ministry of Federal Affairs and Local Development
MoFSC	Ministry of Forest and Soil Conservation
MoSTE	Ministry of Science Technology and Environment
MSFP	Multistakeholder Forestry Program
NAPA	National Adaptation Program of Action
NCCSP	Nepal Climate Change Support Program
NDC	National Development Council
NGO	Non Governmental Organization
NICRA	Negotiated Indirect Cost Rate Agreement
NPC	National Planning Commission
NTNC	National Trust for Nature Conservation
ODA	Official Development Assistance
ODI	Overseas Development Institute
OECD/DAC	Organization for Economic Cooperation and Development/Development Assistance Committee
PAC	Public Accounts Committee
PMER	Panchase Mountain Ecological Region
PMU	Project Management Unit
PPCR	Pilot Program for Climate Resilience
PPFMC	Panchase Protected Forest Main Council
RC	Resource Committee
REDD	Reducing Emissions from Deforestation and Forest Degradation
SCCF	Special Climate Change Fund
SDC	Swiss Agency for Development and Cooperation
SLD	Shared Learning Dialogue
SSU	Service Support Unit
TAL	Tarai Arc Landscape
TU	Tribhuvan University
UNDP	United Nations Development Program
UNDP-TRAC	UNDP Target for Resource Assignments from the Core
UNEP	United Nations Environmental Program
UNFCCC	United Nations Framework Convention on Climate Change
USAID	US Agency for International Development
VDC	Village Development Committee
VDRMC	Village Disaster Risk Management Committee
VEECCCC	Village Energy and Environment Climate Change Coordination Committee
VIA	Vulnerability Impact Assessment
WRFD	Western Regional Forest Directorate
WRI	World Resources Institute
WWF	World Wildlife Fund

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EXECUTIVE SUMMARY

Nepal faces increasingly high risk of different types of disasters. Such disasters lower the country's social and economic development gains as was demonstrated by the devastation from the earthquake of April 25, 2015, and its aftershocks. Though the earthquake was a high-intensity, non-climatic shock, Nepal also faces the risk of recurrent foods, landslides, droughts, and forest fires. Essentially derivatives of climatic process, these disasters are becoming more frequent. Unlike a high intensity earthquake climate-induced disasters do not produce damages of catastrophic magnitude. But they are recurrent and damages produced, when lumped and discounted over time make the losses comparable to those resulting from a major earthquake. These climatic disasters are responsible for stressing the livelihoods of people and exacerbating the vicious cycle of poverty, food insecurity and malnutrition that lower Nepal's human development achievements.

The risks people face depend on their degree of vulnerability. Understanding and objectively assessing vulnerability is therefore the key to building the capacity of individuals, households, and communities to face future shocks. If adaptation efforts, especially to changing climatic conditions, are to be responsive enough to reduce vulnerability, synergies must be established with the processes of national development planning, budgeting, and program implementation.

This study examined the process of funds flow for climate change adaptation from the national to sub-national levels. It looked at five on-going development projects – Ecosystem-based Adaptation (EbA), Nepal Climate Change Support Program (NCCSP), Hariyo Ban, Multi-stakeholder Forestry Program (MSFP) and Community-based Flood and Glacier Lake Outburst Flood Risk Reduction Program (CFGORP) – in which funds supported adaptive activities at the watershed/ecosystem, community, and household levels. The five projects are designed to reduce vulnerability and increase the adaptive capacity of the poor, marginalized groups, women, and the disadvantaged. The projects engage multiple institutions in deciding fund flow and implementation. Each project used a different approach to both assess climate change vulnerability at the local level, and to ensure that its activities would reach the most vulnerable populations. The study systematically reviewed project documents, carried out field observations, and interacted with stakeholders at central, sub-national and local levels to understand the dynamics of fund flow and estimate the share of funds actually being used in adaptation.

The Climate Change Budget Code (CCBC) introduced in the national budget in fiscal year 2012/2013 aims to track climate change finance at the national and sub-national levels. This was a welcome step but assessing budget allocations and expenditures for enhancing climate change adaptation is difficult for two reasons. First, the costs relating to project management, such as communication, publication and monitoring are often reported as expenditure for climate change adaptation. And, second, because climate change adaptation is crosscutting, planned adaptation activities cannot be easily separated from development work, which creates ambiguities in reporting expenditure.

None of the studied projects met the 2011 climate policy's provision to deliver 80% of budget to locals and the most vulnerable groups. In most cases, local communities received less than half of the budget disbursed and the remainder was used to meet management costs. The performance in budget use was also low in all five projects. Poor institutional capacity at the local level – DDC, VDC and municipalities – and lack of human resources emerge are the key constraints impeding effective budget use. Climate change adaptation

activities received little attention from local governments and departmental line agencies because the concerned bodies have multiple responsibilities and sectoral interests. The absence of reflective learning and lack of iterative planning and program implementation characterized all projects that were studied. This deficiency further constrained innovation in targeting investments, thereby limiting the responsiveness of the programs to local context and vulnerabilities.

This report makes recommendations for increasing the efficiency and effectiveness of fund flow and local-level fund use. Initially, a systematic review of existing frameworks, such as the National Adaptation Program of Action and local and community plans of actions, were undertaken to help improve institutional mechanisms and implementation. In most cases, the issue was not the quantum of fund allocated but how it is targeted to context-specific activities. Adaptive strategies must be iterative, hence financing mechanisms must also be given time and space for using prior lessons from implementation for revisiting designs. However, weakness in the government's M&E system and social auditing mechanisms limit opportunities to improve performances. At the same time, what exactly constitutes adaptation to anthropogenic climate change is still unclear, and many conventional development interventions are included in participatory project activities as adaptation measures. The Government of Nepal should work with researchers and practitioners and develop clear criteria to differentiate climate change adaptation activities from regular infrastructure development and natural resources management programs. Such explicit criteria can remove ambiguity in the allocation and use of funds.

Good governance is essential to enhancing the efficiency and effectiveness of climate change adaptation funds. Regular tracking and reporting on fund use against agreed benchmarks can strengthen accountability and governance. Yet, the objective of fund tracking should not simply be monitoring the flow of funds across organizations and expenditure on activities, but also local-level impact resulting from transparency, ownership, responsiveness, and equity in program implementation. Reporting in languages familiar to national and local governments, communities, donors, and local business groups can help ensure the effectiveness of and compliance with climate adaptation programs.

01 BACKGROUND

Two key indicators of climate change in Nepal are increasing temperature and erratic and extreme precipitation pattern across the three physiographic regions – the Tarai, hills and mountains. In Nepal average temperature is rising more rapidly at higher altitudes compared to that in lower altitudes. The current rate of increase in temperature is expected to accelerate the recession of glaciers and snowfields that may affect seasonal and annual water yields and flow in the rivers.[1] Erratic and extreme precipitation events are also likely to accelerate recurrent water-induced disasters— floods, landslides, soil erosion, sedimentation and drought. In fact, the frequency of water-induced disasters has increased and is responsible for significant effects in terms of loss of life, livelihoods, infrastructures and services. The climatic changes also pose a serious threat to the development gains and may, at the very least, stress social and economic development to undermine the well being both in the short- and longer term.

Nepal needs an assured and increasingly larger financial basket in order to address and correct existing vulnerabilities and to reduce, or at least contain, future impacts of climate change. The country requires funding to support adaptation needs as well as regular development. While how much money is needed to meet its adaptation objectives is not clear, most of the funding is expected to be external given that bilateral and multilateral donors fund most regular development work in Nepal. Ensuring that funds are used effectively in the climate change adaption programs, it is important that institutions and instruments are in place to track and monitor the allocation and flow of funds from the national to sub-national and local levels.

Foreign aid continues to play a significant role in Nepal's socio-economic development. Nepal receives Overseas Development Assistance (ODA) from over 40 bilateral and multilateral donors (MoF 2013a). Between 2012 and 2013, the total amount of ODA received was USD 959 million, or 26% of the national budget (MoF 2013a). Of this amount, approximately 49% was received from multilateral sources and 41% from the Organization for Economic Co-operation and Development (OECD)/Development Assistance Committee (DAC) and bilateral donors while the remaining 10% came from India and China. These figures do not include funds received from international non-

[1] Historical records of temperature suggest that the annual rate of increased in maximum temperature in Nepal is 0.06°C.

governmental organizations (INGOs) whose headquarters are outside the country. INGOs also receive money from OECD-DAC donors that is earmarked to support Nepal.

In 2012-13, external funding supported 508 national and sub-national projects in Nepal that received 41% and 59% of the resources, respectively. In 2013, the UN country team supported the largest number of projects, while the World Bank Group had disbursed the largest amount of funds for development (Table 1). The social development sector was the highest recipient of foreign aid, with education receiving the largest share of external support (MoF 2014b). Although the flow of ODA to Nepal has nearly doubled over the past decade (Figure 1), the year-wise disbursement over the last three years—2010-11, 2011-12 and 2012-13—was essentially the same (Table 2).

Of the ODA received in 2012-13, about 64% (USD 614.68 million) was disbursed to budgeted projects. Non-budgeted projects, or those not appearing in the government's financial system (MoF 2014b), received the remaining 36% of ODA (USD 345.26 million). The non-budgeted projects include funding to civil society, the private sector and community-based organizations, as well as allocations for technical assistance and capacity-building support to government agencies and non-governmental organizations.

Nepal also received funding to deal with climate change vulnerability from sources other than ODA (OXFAM 2010). Under the United Nations Framework Convention on Climate Change (UNFCCC), funds received were from following three streams:

- Least Developed Countries Fund (LDCF);
- Special Climate Change Fund (SCCF); and
- Adaptation Fund (AF).

Outside the UNFCCC, the following agencies also provide funds to deal with climate change challenges:

- Multilateral banks;
- Bilateral donors agencies;
- United Nations; and
- INGOs.

Between 2000 and 2010, Nepal received nearly USD 650 million (NPC 2011) to support climate change-related programs. The assistance came from bilateral and multilateral funding agencies, dedicated climate funds under UNFCCC, the LDCF, the Global Climate Change Alliance (GCCA) and the Climate Investment Fund (CIF). The activities supported by these funds are spread across different sectors and are implemented by both government departments and non-government organizations.

This fund for adaptation is generally referred as climate finance, although the definition broadly includes the commitments of the international community, governments and

Table 1 **Funding from multilateral donors and amounts disbursed (USD)**

S. N.	AGENCY	AMOUNT
1	World Bank Group	231,404,440
2	Asian Development Bank	101,204,607
3	UN Country Team	68,661,608
4	GFATM	28,241,077
5	European Union	28,066,696

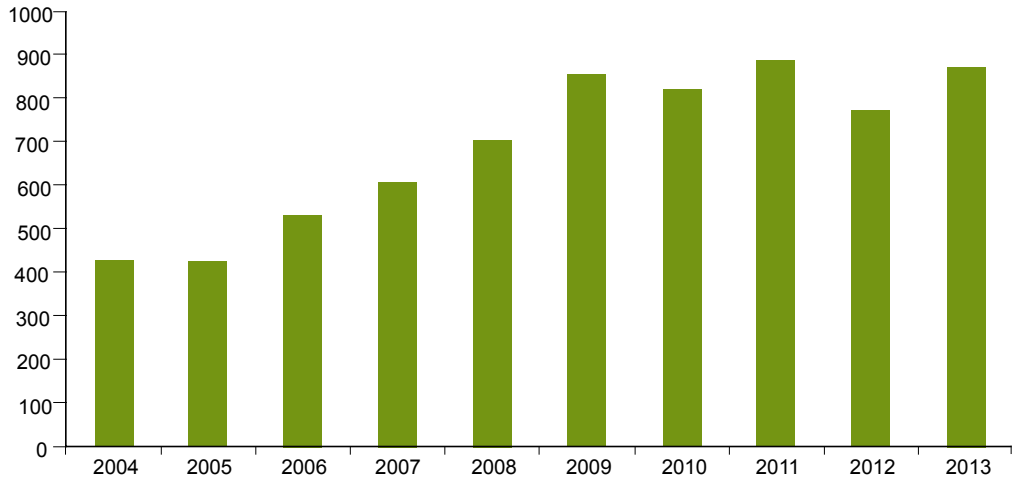
Source: MoF (2013a)

Table 2 **Yearly disbursement (USD)**

S. N.	YEAR	AMOUNT
1	2010-11	1,079,710,554
2	2011-12	1,045,297,273
3	2012-13	959,951,292

Source: MoF (2013a)

FIGURE 1 **Official development aid in Nepal (million dollars)**



Source: OECD data bank

development organizations. This reference to climate finance is much narrower although used widely by development agencies, researchers and professionals. In broader sense, climate finance encompasses climate specific support mechanisms and financial aid for mitigation and adaptation activities seeking to enable the transition towards low carbon and climate resilient development. Thus climate finance means more than transfer of public and private funds from the developed to developing countries and from the national to sub-national and local levels. In this report 'climate finance' is used in a narrower sense. It is meant to indicate funds that flow into the country and used for climate change mitigation, adaptation and capacity building activities to address vulnerabilities at the individual and community levels (Oxfam 2014, cited in Clapp et al. 2012; Caruso and Ellis 2013).

It is important that climate finance is used efficiently and effectively to produce meaningful gains for vulnerable individuals, households and communities. The value of these gains should be measurable – in terms of reduced vulnerability (or increased adaptive capacity). Meeting this objective raises questions about what constitute adaptive capacity and/or resilience to climate change or how resilience enhancement can be quantified. To ensure that these investments translate into greater capacity in responding to consequence of climate change, it is necessary to ensure that adaptation programs are relevant to and complement regular development works. While integrating climate change adaptation into mainstream development makes sense, tracking the effectiveness and efficiency of climate finance in meeting adaptation objectives faces both conceptual and operational challenges. The conceptual challenges come from definition itself. United Nations Framework Convention on Climate Change (UNFCCC), for example, defines adaptation as the extent to which societies could tolerate the changes in climate. In its efforts to link such a concept with a more practical, on-the-ground actions, ISET (2008) argues that in well-adapted systems, people do well despite the changes in conditions that introduce new stresses attributable to climate change or those due to existing

vulnerability. The reason people do well is because either they shift livelihood strategies or that the underlying systems on which their livelihoods are based are sufficiently resilient and flexible to absorb the impact of the changes. Adaptation, therefore, encompasses both the ability to adopt alternative livelihoods as well as the ability to develop resilient and flexible systems. However, both definitions do not provide a practical basis to differentiate climate change adaptation from development. The overlaps between adaptation and regular development remain unclear though we understand that both complement each other.

Achieving clarity would require developing a framework to differentiate development and adaptation to anthropogenic climate change. Developing such a framework is not easy because of number of factors. First, it is hard to attribute specific local weather impact to climate change. Secondly all forms of development are aimed at building social, economic or environmental capital that should enhance resilience to respond to shock. Thus, thirdly where development ends adaptation begins is unclear or fuzzy at best. Thus development should help build adaptive capacity and contribute to overall wellbeing. From such a perspective, any attempt to evaluate the efficiency and/or effectiveness of an investment on adaptation would not be different from one for development. The approach to assessing the effectiveness of investment for climate change adaptation also demands a process analysis to appraise the return from investment and how it is distributed in society. Such analysis would, at the very least, identify effective systems/processes of funding, and also the practices that could be replicated and scaled to address vulnerabilities. Adaptation in this framework is therefore conceptualized as locus of actions within the broader development premise that helps in lowering vulnerability induced by climate change.

02 STUDY CONTEXT

Climate change forces developing countries, such as Nepal, to face the challenge of dealing with vulnerabilities while transiting to low carbon economic development. However, how this can be done and how financing can be secured for the activities needed remains a challenge. Developing countries claim that governments in developed countries should be the main contributors of international climate change finances to compensate for having historically produced more greenhouse gases than their less developed counterparts. The developed countries have committed to provide, according to Article 4 of the United Nation Framework Convention on Climate Change (UNFCCC), new and additional financial and technological support to developing countries to help meet their mitigation and adaptation needs. A debate around this proposal, however, is how exactly the developed countries can help developing countries in achieving the dual objectives of low carbon development and building adaptive capacity for dealing with vulnerabilities brought about by climate change. While "compensatory finance" is important, equally crucial is the use of funds available to developing countries for building climate resilience.

This study seeks to understand the dynamics of flow and use of climate finance in Nepal. It is a part of the Adaptation Finance Accountability Initiative (AFAI), supported by the Rockefeller Foundation, being carried out simultaneously in the Philippines, Uganda, Zambia and Nepal as a collaborative activity of Oxfam, the Overseas Development Institute (ODI), the World Resources Institute (WRI), and local civil society groups and think tanks. In Nepal, Oxfam, ISET-Nepal and Clean Energy Nepal (CEN) collaborated to undertake the study.

The study examined opportunities and challenges inherent in transparency, accountability and effectiveness of the fund disbursement process. Its focus on fund-flow and the decision-making, along with support and outreach to climate change adaptation efforts in socially, economically and institutionally disadvantaged areas has made the results relevant to programs, even beyond those examined. The study focused on examining the following aspects of the fund-flow process:

- The flow of climate change finance, from the national to the community level;
- Compliance with the government policy, which specifies that 80% of climate

funds must reach and be used at the community level to help support climate change adaptation;

- The role of the government, NGOs, private sector, community-based organizations and user groups in climate change adaptation, and their strengths and weaknesses to reach vulnerable groups for supporting climate change adaptation;
- The extent to which gender and social inclusion (GESI) concerns, which are central to successful adaptation, have been addressed;
- Public participation in decisions on fund allocation, and the degree to which factors such as geographic location, target beneficiaries and sectors are considered in the allocation; and
- The governance and management of climate finance.

The findings are relevant for reviewing policies and practices of allocation and the fund flow process, and can help both the government and donor agencies in producing effective adaptation solutions. The study also suggests measures for effective use of climate finances for reaching those most vulnerable to climate change. The study was not designed to evaluate or compare how different programs maintained the effectiveness and/or efficiency of funding. Instead, its aim was to look into and analyze the mechanisms for delivering climate finance at the local level.

03 OBJECTIVES, QUESTIONS AND SCOPE

The availability of fund, disbursement mechanisms, and the effectiveness in reaching the most vulnerable areas and populations are important elements for assessing effectiveness of adaptation programs. A combination of these elements is important to ensure that the poor and the marginalized – often ignored by mainstream development funding and state processes – are included in the adaptation programs. These concerns were central while in conceiving and implementing this study.

3.1 Objectives

The objectives of the study were as follows:

- Track the flow of climate adaptation finance received from international sources at the national, sub-national and local levels to see if it was flowing to intended locations and communities.
- Analyze the strengths and weaknesses in the existing fund flow system, and in the governance and management of funds.
- Make policy recommendations towards:
  - Improving the transparency and accountability of use of climate change finance at all levels;
  - Improving the governance and management of climate change finance;
  - Methods, processes and systems of decision-making in channeling climate finance to reach and support the adaptation needs of vulnerable communities; and
  - Furthering policy discourse to examine linkages among climate change adaptation, mainstream development, the need for climate change finance and its use at the national and sub-national levels.

3.2 The questions

The research team had posed the following questions to meet the objectives:

- What are the types of international sources for financing climate change adaptation in Nepal and fund flows from each of them?
- What institutional arrangements organize, coordinate, implement and evaluate climate change adaptation activities?
- What frameworks and mechanisms exit to allocate funds from the national to the sub-national level?
- How effective are existing mechanisms and institutional arrangements in ensuring

the flow of financial resources to vulnerable communities, and their compliance with the national climate change policy?

- What processes ensure that the principles of good governance (transparency, participation, ownership and accountability, responsiveness and equity) are incorporated in the design and implementation of climate change adaptation projects?
- What are the challenges to effective delivery of climate finance to poor and disadvantaged communities to support their adaptation activities?
- How can existing gaps in the governance and management of climate change financing be addressed to improve objectivity and effectiveness of adaptation at the community level?

3.3 Scope

This study examined the processes and mechanism of climate change financing and fund flows at the national level and in seven Village Development Committees (VDCs) and one municipality in the following four districts—Kaski, Rolpa, Mahottari and Kailali—where climate change adaptation programs are underway with funding from different sources. The programs examined included: the Ecosystem-based Adaptation (EbA) Program, the Nepal Climate Change Support Program (NCCSP), the Multi-Stakeholder Forestry Program (MSFP), and the Hariyo Ban and Community-Based Flood and the Glacial Lake Outburst Risk Reduction Program (CFGORRP). Following guidelines were used in selecting the sample districts and VDCs:

a) District-level vulnerability index established by NAPA – the districts that face higher level of vulnerability are included in the study (Figure 3);
b) The presence of multiple programs and multiple sources of funding at the district and the VDCs;
c) Adaptation activities being implemented at the district and VDC levels; and
d) Suggestions made during initial consultations and review of adaptation programs.

The districts and VDCs studied are listed in Table 3 and shown in Figure 2.

Other climate change adaptation programs were not included in this study.

3.4 Limitations of the study

The study does not comprehensively examine all issues related to climate financing across the programs studied. It only looks at the fund flow process

Table 3 **Programs, Districts and VDCs**

LOCATION	DISTRICT	VULNERABILITY INDEX	ADAPTIVE CAPACITY	PROGRAM	STUDY VDC
Western Region (WR), Hill	Kaski	Moderate	Very high	EbA & Hariyo Ban	Bhadaure Tamagi, Pumdi Bhumdi, Dhikurpokhari
Mid Western Region (MWR), Hill	Rolpa	Moderate	Very low	NCCSP & MSFP	Mijing, Tewang
Far Western Region (FWR), Tarai	Kailali	Low	Moderate	NCCSP & Hariyo Ban	Narayanpur, Bhajani Tikapur Municipality
Eastern Region, Tarai	Mahottari	High	Low	LDCF/CFGORRP	-

Source : NAPA document (MoSTE, 2010)

FIGURE 2 **Study districts**

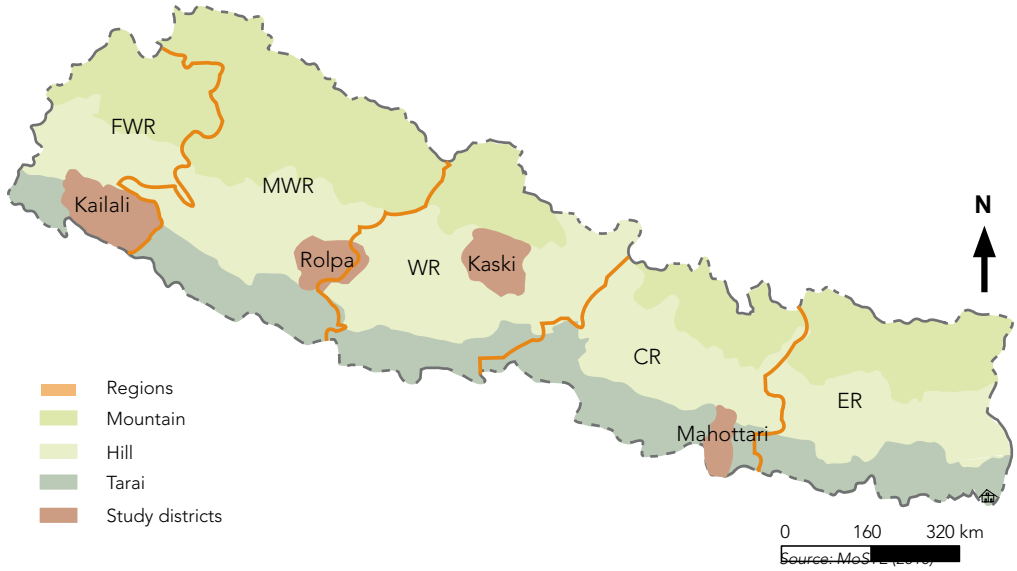
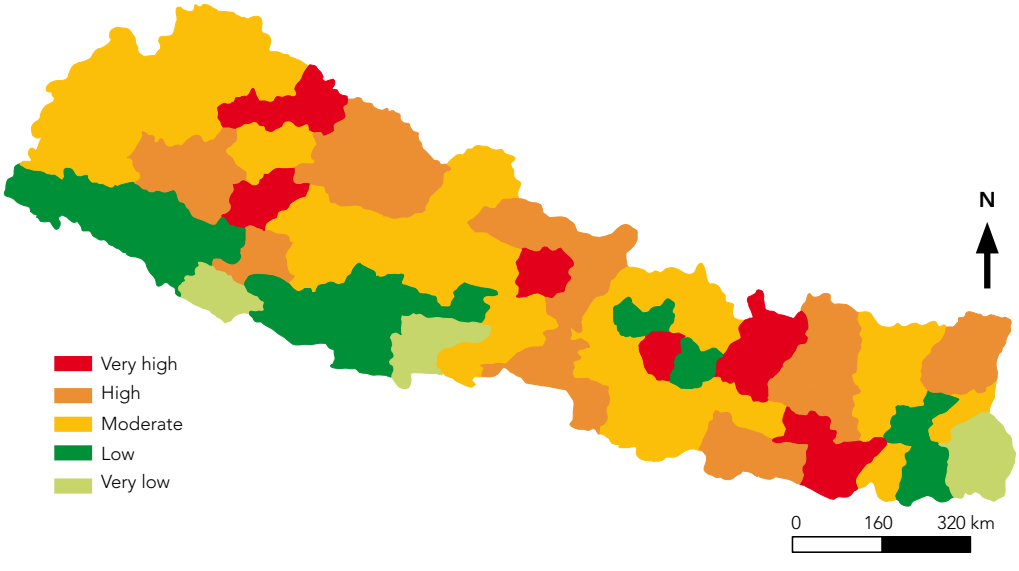


FIGURE 3 **Vulnerability ranking of districts**



Source: MoSTE (2010)

and the funds available for adaptation activities at the national, sub-national and local levels. Although the inquiries involve institutional arrangements, and monitoring and control mechanisms at the national, sub-national and local levels, they are by no means representative of all climate change adaptation programs being implemented. Hence, the findings cannot be generalized for all climate change-related activities in Nepal. The other factors likely to limit general application of the findings are:

- The access to reliable data on funding going into climate change adaptation was difficult, as many organizations do not maintain separate systems to track funding for climate change adaptation,
- Access to information for developing a common baseline was not possible. Information on finances at the community-level was lacking, and was not documented systematically,
- Investment information made available to the study team could not be collated and systematized within the short time frame of the study,
- Adverse weather conditions, festivals, and political disturbances and strikes impeded the fieldwork, and
- The conversion of foreign currency into Nepali rupees may have resulted in discrepancies in accounting, as the exchange rate had fluctuated and a standard baseline could not be used.[2]

[2] The study uses the exchange rates of Nepal Rastra Bank (Central Bank) on 1 January, 2015: 1 USD equivalent to NRs. 100.56, 1 GBP equivalent to NRs. 156.81, and 1 Euro equivalent to NRs. 122.21. Converting the Nepali fiscal year into English and vice versa is another difficulty as the GoN and donors follow different fiscal calendars.

04 RESEARCH METHODOLOGY

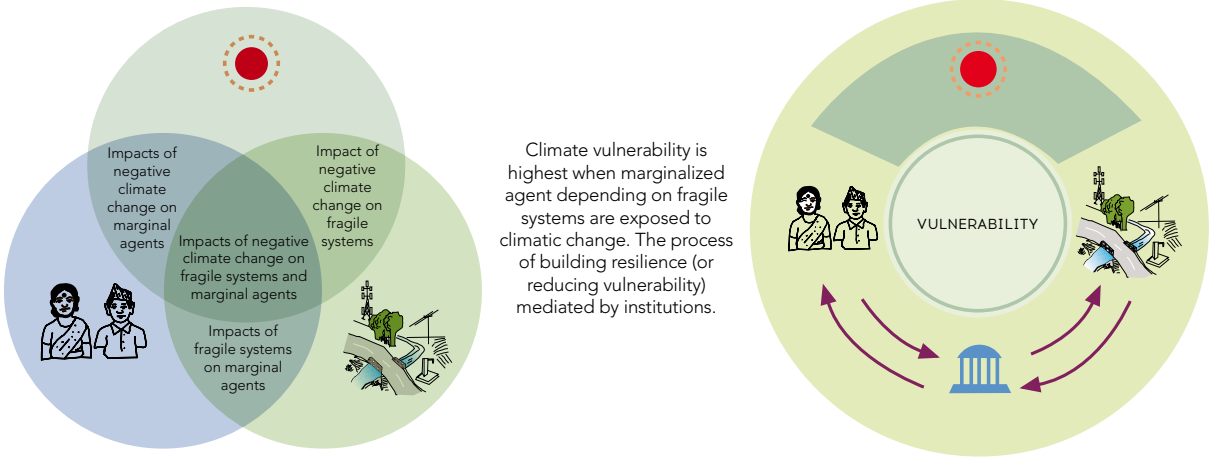
The methodology in this study comprised of (i) developing a conceptual framework, (ii) literature review, (iii) inquiry and information-seeking using appropriate tools, (iv) VIA assessment, and (v) analysis and synthesis. The following sections summarize the methodological steps used in the study.

4.1 Conceptual framework

Two premises guided the framing of this study.

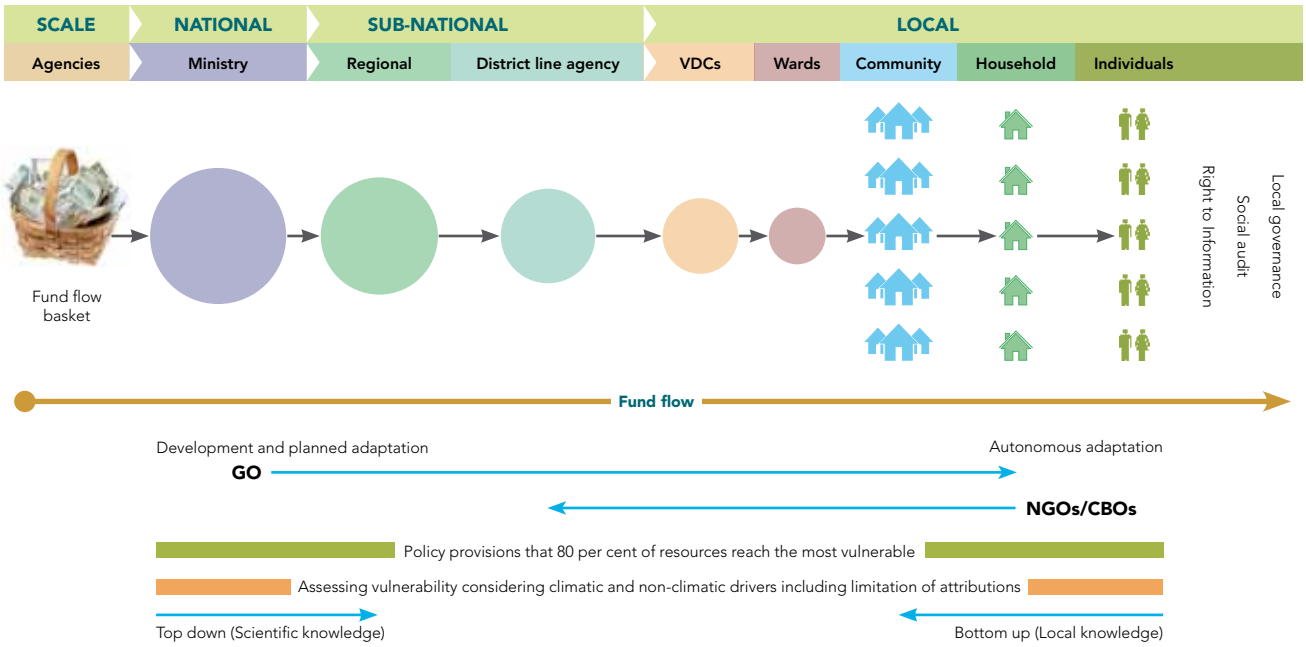
The first is that climate change vulnerability is at its greatest when marginalized individuals, households, communities and groups who depend on fragile natural and human-built systems are exposed to the vagaries of climate change (Figure 4). Any effort to enhance resilience will therefore rest on analyzing the roles that

FIGURE 4 **Climate resilience framework (CRF)**



Adapted from ISET (2012)

FIGURE 5 **Fund flow system and conceptual framework**



Source: ISET-Nepal (2015)

natural and human-built systems play in the life of the marginalized populations and the nature and severity of the hazard events to which they are exposed. Vital systems can then be made to withstand the increasing variability in climate, and to minimize the associated livelihood risks. Minimizing livelihood risks must employ a gender and social inclusion approach to identify the points of entry for overcoming social marginality, while recognizing the role that formal and informal institutions play in supporting this objective. The second premise relates to funds available at the local level to implement adaptation actions through participatory and inclusive processes. This objective can be met by strengthening the governance and management regimes to ensure that the fund flow mechanism – from national to local – is both efficient and effective (Figure 5).

Climate change vulnerability of marginalized communities can only be addressed if following key conditions are given due consideration. First, national government must expand the volume and diversity of funding sources. Second, policies must ensure that a major share of the fund reaches the communities. Third, the fund transfer mechanism must be transparent to ensure accountability of stakeholders at each stage. Fourth, local capacity must be built to take decisions and to effectively spend the allocated resources. Fifth, local stakeholders, especially those who are more vulnerable, must have a stake and participate in the decision-making processes. Such measures will help meet the wider goals of efficiency, equity and social justice in implementing climate adaptation programs.

4.2 Methods and tools

The methodological tools used in the study involved- i) a combination of qualitative and quantitative analysis, ii) participatory approaches to collection

of data/information, iii) purposive sampling of community and respondents, and iv) shared learning dialogue (SLD) for reflecting and learning. The selection of these tools was guided by the desire to triangulate information to ensure reliability. The study locations were purposively selected to represent Nepal's geographical and social diversity. The sequence of activities that steered the study is shown in Figure 6. Information collected at each stage was crosschecked with field observations, and that obtained in interactions with different stakeholders.

Primary data collection involved key informant interviews (KIIs), semi-structured interviews, guided group meetings and focus group discussions (FGDs) with men and women in the study districts (see Annex 1 for the checklist used for KIIs and FGDs). In the design stage the team held a consultation with selected researchers, practitioners and policy makers in Kathmandu (Table 4). Field-level activities were yet to start under the CFGORRP in Mahottari District, so KIIs and FGDs were not organized, instead the inquiry focused on desk study, involving review of project documents and other secondary sources to obtain the insights on the project, which were then shared in the stakeholders' meeting. Prior to commencing field-level inquiries in the other three districts, the study team

FIGURE 6 **Study sequence**

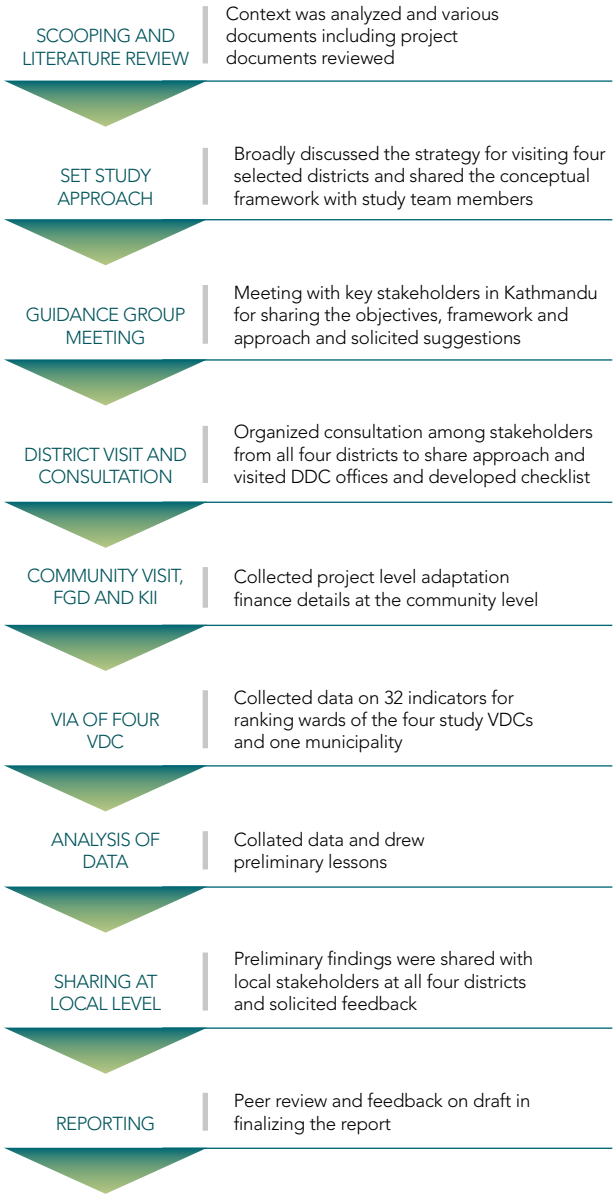


Table 4 **Number of workshops, FGDs and KII**

DISTRICT	FGD	KII	GUIDANCE GROUP MEETING	PROGRAM
Kaski	2	10	2	EbA/Hariyo Ban
Rolpa	3	7	2	NCCSP/MSFP
Kailali	4	6	2	NCCSP/Hariyo Ban
Mahottari	-		7	CFGORRP
Kathmandu	-	7	1	All 5 programs
Total	9	30	7	

reviewed literatures, including national and global works on climate change adaptation, governance and management of climate change projects, and grass-root development processes.

Guided group meetings, KIIs and FGDs were used to collect data on 32 indicators, which were used in ranking the VDCs and their wards for vulnerability. This method was derived from earlier work of ISET-Nepal on ecosystem-based adaptation (EbA) in Panchase Mountain Ecological Region (PMER) where 153 wards in 17 VDCs and three sub-watersheds were ranked for vulnerability (maps in the box). The VDCs were ranked in decreasing order of ward-level vulnerability. The box also includes vulnerability maps of wards in the VDCs of Mijing, Tewang, Narayanpur and Tikapur Municipality. Bhajani VDC could not be ranked, as researchers were unable to collect baseline data within the stipulated time.

05 CLIMATE CHANGE TRENDS, VULNERABILITY, PLANNED ADAPTATION AND CLIMATE FINANCE

Climate change is likely to influence precipitation patterns in Nepal. Rainfall in Nepal and its distribution depends largely on the summer monsoon and winter precipitation (rainfall and snowfall) produced by westerly winds. Rainfall patterns vary at the macro, meso and micro scales (Domoroes 1978), and also across the south-north direction spanning five geo-physical regions—the Tarai plains, the Chure hills, the Mahabharat Mid Hills, the High Mountains and the High Himalayas. With a predominantly agrarian economy and limited livelihoods opportunities, people face increasing risks from climate uncertainty that is accentuated by precipitation and geographic variations. Climate change disturbs the intricate balance between ecosystems, agricultural productivity and livelihoods in various scales across geographies. These disturbances threaten food security, infrastructure and the general economy.

Climate change impacts in Nepal are expected to have four directional paths:

I. Disturbances to the integrity of ecosystems and their services by impeding regeneration, and impairing the quantity and quality of services produced;
II. Uncertainty in production, and productivity gains in the primary (agriculture), secondary (agro-processing) and tertiary (consumer services) sectors of the economy;
III. The increased risk of natural hazards; and
IV. The increased health risks due to land and water pollution, malnutrition and disease dynamics.

Together, these impact pathways weaken local and national level resilience to climate change and other stressors.

5.1 Climate change trends

Researchers have established that temperatures are likely to increase steadily in all ecological zones, but most significantly in the middle and high mountain regions. A 2009 study concluded that the nation's mean annual temperature would increase by 1.4°C, 1.8°C and 4.7°C, from the mean value between 1972 and 1999 in 2030, 2060 and 2090, respectively (NCVST 2009). Kulkarni et al. (2013) estimate that the annual average temperature for the central and eastern Himalaya will rise by 1-2°C between 2011 and 2040, by 1-3°C between 2041 and 2070, and by 3-5°C between 2071 and 2098 (Table 5). A temperature rise of this magnitude would adversely impact on Nepal's snow packs, glaciers, water sources, forests, and agriculture productivity.

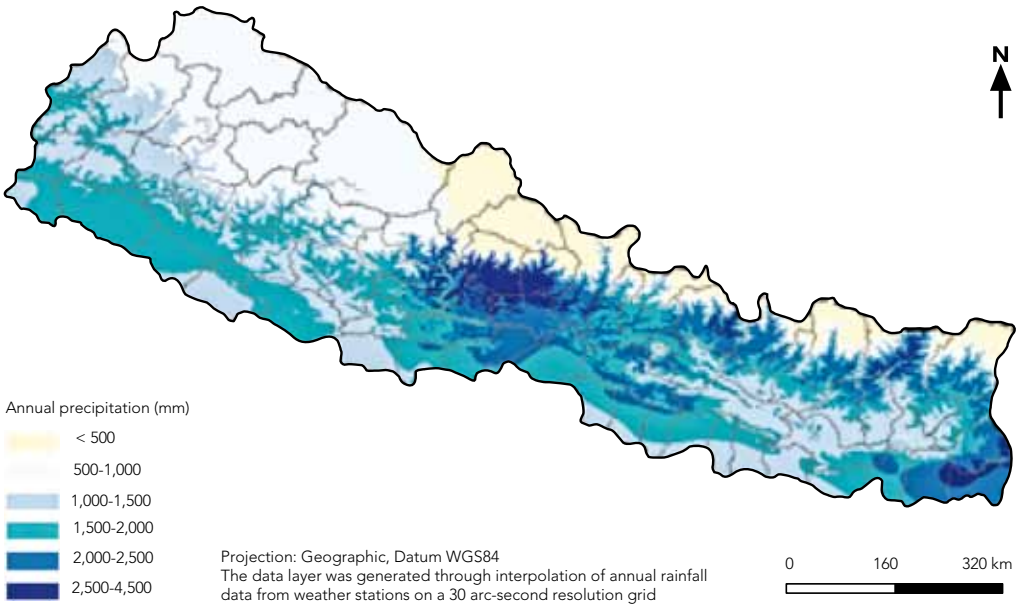
Climate change is also producing changes in the rainfall. Specifically, there is increasing uncertainty with regards to the seasons, as the monsoon becomes shorter and heavy rainfall more frequent while warming increases throughout the year. Although average annual rainfall in Nepal has not changed significantly, there are pockets in which rainfall has increased or decreased markedly (FAO 2014) (Figure 7). Projected climate trends for Nepal (Kulkarni et al. 2013) suggest there will be more days of heavy and irregular rainfall capable of triggering water-induced disasters (Table 6) in the form of cloudbursts, snowstorms and torrential rains. Other disasters, such as frequent floods, landslides, and mass wasting, can severely damage life, property, community assets and infrastructure. It is also likely that Nepal will face more frequent droughts that would damage crops and reduce agricultural production.

Table 5 **Temperature projection**

REGION	MEAN ANNUAL TEMPERATURE (°C)				
	OBSERVED	1961-1990	2011-2040	2041-2070	2071-2098
Western Himalaya	9.9	7.9	9.6	11.2	12.5
Central Himalaya	8.9	9.2	10.8	12.4	13.5
Eastern Himalaya	13.6	15.1	16.5	18.0	19.2

Source: Kulkarni et al., (2013)

FIGURE 7 **Annual precipitation**



Source: FAO (2014)

Table 6 **Precipitation projection**

REGION	SUMMER MONSOON RAINFALL (mm)				
	OBSERVED	1961-1990	2011-2040	2041-2070	2071-2098
Western Himalaya	86	97	114	106	105
Central Himalaya	546	692	717	785	855
Eastern Himalaya	1042	1130	1140	1204	1270

Source: Kulkarni et al., (2013)

5.2 Climate change vulnerability

The changes in the temperature and rainfall patterns will stress the livelihoods of all sections of society, but poor and marginalized communities will be at greatest risk due to their low socio-economic status, and limited livelihood options. Building capacity to adapt to climate change involves assessing and reducing vulnerability. The Intergovernmental Panel on Climate Change (IPCC) has defined vulnerability as "the degree to which a system is susceptible to, and unable to cope with, the adverse effects of climate change, including climate variability and extremes" (IPCC 2007). Vulnerability to climate change is the combination of a complex interaction of a large number of physical, social, institutional and economic factors. One form of analysis of vulnerability to climate change relates to understanding the variability and trends in climatic phenomena at a given location, and then modeling their likely impacts on the location's physical, social, economic and institutional attributes.

Analysis of historical records, predictions of climate change modeling and local experiences suggest that temperatures in Nepal are increasing. Trends in micro, meso and macro precipitation patterns in the country, however, cannot be predicted with any degree of certainty. It can be inferred that the patterns are very likely to differ from that in the past. It is also incorrect to attribute all anomalies in weather events to climate change. Examining the consequences of the changing dynamics in precipitation on floods, landslides, and drought events, and their implications on the life and economy of individuals, households, settlements and communities is significant. Also significant is the fact that different communities will experience exposure to climate change and the consequences differently. For example, households or communities in the plains are often directly exposed to flooding while those in the hills are disproportionately exposed to the risks of landslides and mass wasting. Identifying vulnerable groups will require systematic analysis of the risks that multiple factors pose relative to the strengths and the adaptive capacity at the local level.

In 2011 the Government of Nepal stipulated in its climate change policy that 80% of financial resources for climate change adaptation must reach the most vulnerable communities. The systematic tracking of the flow of finance and the processes involved therein can help in evaluating whether or not the funds reach those who are most at risk vis-à-vis adaptation. As we argued earlier it is not easy to define what constitutes adaption and therefore developing and implementing climate adaptation programs which conform to this financing policy will require answering a number of questions: a) Who are the most vulnerable people? b) Where do they live and how

can they be identified? c) What impacts of climate change do they face and in what ways are they vulnerable? d) What can be done to reduce their vulnerability? e) Who can do this? f) What resources are needed to objectively address vulnerability, and g) How and by whom would these resources be mobilized? The answers to the first three questions shape the answers to the remaining questions.

Over the last two decades many researchers and analysts have devised a number of methods to assess vulnerability. The earlier approaches assume that climate change is the main driver of vulnerability and its assessment should begin with an understanding of climate science, historical climate trends and the scenarios of future climatic hazards (Fussel 2007, Fussel & Klein 2006). However, this type of top-down and linear (Table 7) approach ignores local complexities in assessing vulnerability, and designing actions to minimize it. This approach also does not encourage learning from individual and community experiences and local knowledge and practices. In Nepal, for example, it has been widely recognized that local knowledge and indigenous practices of individuals, households and communities are important in analyzing vulnerability (MoSTE 2015). A systematic approach to assessing and addressing local-level vulnerability, thus, would involve the following broad steps:

- Evaluating the status and quality of systems – physical (infrastructure and technology), social (knowledge and practices), institutional (community-based collective action ethos and norms) and ecosystem (biotic and abiotic components, biodiversity and interdependence) – that the communities and individuals rely upon;
- Identifying and valuing the services produced by the systems that can be used to adapt to climate change impacts; and
- Recording and assessing all adaptive practices and actions of households and communities in response to the stresses caused by climate change.

Table 7 **Framework for conducting climate impact and adaptation assessment**

STEPS	EXPLANATIONS
Definition of the problem	Identifying the specific goals of the assessment: the ecosystem, economic sectors, and geographical area, of interest; the time horizon, of the study; the data needs; the wider context of the study.
Selection of the method	Selecting analytical method depends upon the availability of resources, proposition and knowledge and skills.
Testing the method	Reviewing the methods for suitability
Selection of the scenarios	Developing scenarios requires the projection of conditions expected to exist over the study period in the absence of climate change and, secondly, the projection of conditions associated with possible future changes in climate.
Assessment of biophysical and socio-economic impacts	Using existing data in local context to assess impacts
Assessment of autonomous adjustments	Collecting/identifying strategies that individual households pursue to deal with stress.
Evolution of adaptation strategies.	Examining viability of strategies

Source: Carter et al. (1994)

Both planned and autonomous actions can assist planning to deal with new stress. While autonomous responses to adapt to the stresses induced by climate change are useful starting points for replicating and scaling up adaptation strategies, this study focuses on planned adaptation. It considers planned adaptation as measures taken by the government, donors, development organizations and the development community in anticipation of and in responding to the vulnerability caused by climate change and other stressors (ISET 2008). They include systematic approaches to vulnerability assessment and to the design and implementation of options to address vulnerability. Autonomous adaptation, in contrast, involves all kinds of actions that individuals, households and communities take with or without being conscious of impending vulnerabilities, yet producing value in responding to vulnerability.

5.3 Planned adaptation

Planned adaptation measures may take different forms. They range from developing and/or streamlining policies and development strategies, building the knowledge and capacity of people and local institutions, and designing and developing new infrastructure and services, as a means to intervening in the existing system and practices. The policies define the framework that guides implementation of planned adaptation strategies to reduce climate change vulnerabilities. Two such frameworks are the National Adaptation Program of Action (NAPA) and the Local Adaptation Plan of Action (LAPA). In addition, different types of Community Adaptation Plan of Action (CAPA) are also being implemented by different development organizations. This study however, has not assessed the effectiveness of CAPAs.

National Adaptation Program of Action (NAPA)

The NAPA, prepared in September 2010 by the GoN, focuses on six thematic areas of intervention to address climate change vulnerabilities: agriculture and food security, forests and biodiversity, water resources and energy, climate-induced disasters, public health and urban settlements, and infrastructure. The NAPA aims to broaden adaptation planning to include bottom-up approaches and integrate low carbon development into adaptation efforts to achieve co-benefits and economies of scale (NAPA 2010). Within the thematic areas, the NAPA identifies and prioritizes nine programs of about USD 350 million to be implemented at the VDC-and municipality-levels through designated line ministries. Accordingly, district-level project planning and delivery would be the responsibility of the district coordination committee (DCC), under the district development committee (DDC), and a secretariat within the DDC would select local agents for service delivery. Vertical and horizontal coordination would be key for the effective delivery of services.

The GoN expected that the themes NAPA prioritized would attract financial resources from global, multi-lateral and bilateral agencies to reduce Nepal's climate change vulnerability. NAPA even states that a climate change fund must be developed, but no action has yet been taken in respect to this. The GoN has also stipulated, in NAPA's implementation framework, that at least 80% of climate change budget should be disbursed to the most vulnerable households and communities, and this study has examined how effective implementation of this provision has been. NAPA has identified the Ministry of Federal Affairs and Local Development (MoFALD) as the key player in implementing planned adaptation strategies.

Local Adaptation Plan of Action:
While NAPA covered efforts at the national level, the GoN recognized the need for efforts at the local level that lead to the process of devising LAPA for mainstreaming climate change adaptation in development planning. The LAPA aims to contextualize NAPA in the local context and integrate adaptation actions into development planning at the VDC level. The LAPA framework proposes an inclusive, bottom-up, responsive and flexible approach to foster local adaptation.

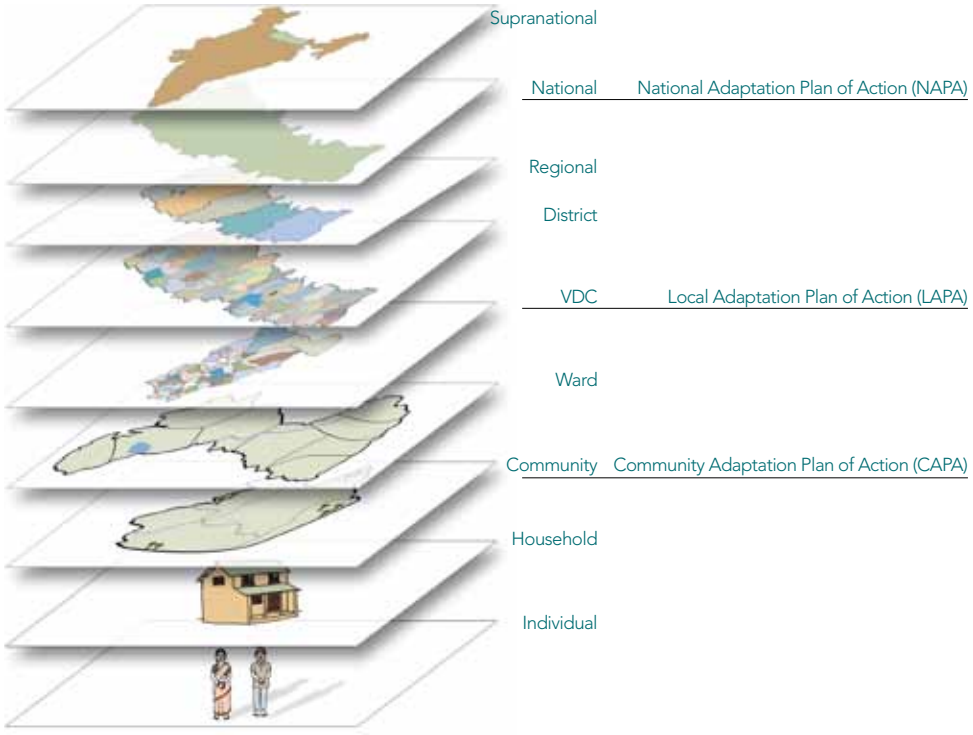
Community Adaptation Plan of Action:
Some donor programs have supported the development of CAPAs, which broadly follow the guidelines set by the NAPA and LAPA.

In theory, the NAPA, LAPAs and CAPAs suit Nepal's physical, social and institutional diversity. These measures can help to streamline fund flow from the national to sub-national and local levels. They also offer opportunities to integrate top-down and bottom-up processes in designing and implementing adaptation activities (Figure 8). Collectively, they can provide a framework to maintain objectivity in climate financing, and consistency with the country's budgetary processes.

5.4 Climate finance

Nepal began receiving climate finance in 1997 through adaptation programs support by Germany, and between 1997 to 2014 the amount committed by various donors for climate finance was USD 652.4 million (Table 8). From 2009 to 2012, USD 538.24 million was committed to meet the cost for adaptation (Oxfam 2014) but the exact amount of climate finance that Nepal has received to date is unclear.

FIGURE 8 **Relationship between the NAPA, LAPAs and CAPAs**



Source: Adapted from Dixit et al. (2015)

In 2012/13 and 2013/2014, the GoN introduced a Climate Change Budget Code (CCBC) for tracking climate finance. The CCBC covers the development/ capital budget only and not the recurrent expenditure on climate change. The code considers 11 thematic areas[3] and is used as is shown in Table 10.

The CCBC showed that about 10.34% of allocations were related to both direct (5.36%) and indirect (4.98%) climate change activities in the budget of 2012/2013. In 2013/2014, about 10.4% of the budget was allocated for climate change, of which 5.8% was directly related to climate change activities while 4.6% was related indirectly (CEN 2014). In 2014/2015, the GoN allocated NRs. 66.35 billion (approximately 10.73% of the budget of that year) to climate change related activities. More than half of the GoN's climate finance (55%) comes from external sources (NPC 2012). This is not surprising given that Nepal has been dependent on donor funding for financing its regular development endeavors.[4]

Table 8 **A first approximation of climate finance in Nepal**

TIMELINE	DONOR	NUMBER OF CLIMATE CHANGE RELATED INITIATIVES	AMOUNT COMMITTED UP TO 2014 IN USD MILLION
1997 onwards	Germany	5	40.2
2002 onwards	Norway	5	33.6
2004 onwards	Japan	7	12.7
2004 onwards	EU	3	23.5
2006 onwards	World Bank	20	379.4
2007 onwards	Denmark	4	30.7
2008 onwards	Switzer-land	4	20.7
2008 onwards	UN	8	2.5
2009 onwards	Finland	3	10.4
2009 onwards	UK	5	42.5
-	ADB	8	56.2
	TOTAL	71	652.4

Source: Bird (2011)

About 60% of climate change funding is channeled through Nepal's sectoral ministries and departments and 40% through local government agencies. The National Planning Commission (NPC) estimates that Nepal's annual climate change adaptation expenditure is about 2-3% of gross domestic product (GDP) (NPC, 2012). This estimate, however, seems to be on the higher side and inconsistent with the country's fiscal expenditure management system and low spending. In 2012 Nepal's Gross Domestic Product (GDP) was USD 20 billion, so 3% of the GDP was USD 600 million – the total amount that Nepal received to meet the cost of climate change activities from 2007 to 2012. The NPC's contention

[3] The following 11 programs are considered climate-related programs: a) sustainable management of natural resource and greenery promotion; b) land-use planning and climate-resilient infrastructures; c) prevention and control of climate change-induced health hazards; d) prevention and control of climate change-induced hazards to endangered species and biodiversity; e) management of landfill sites and sewerage treatment for reduction of emission of greenhouse gas; f) sustainable use of water resources for energy, fishery, irrigation and safe drinking water; g) plans and programs supporting food safety and security; h) promotion of renewable and alternative energy, technology development for emission reduction and low-carbon energy use; i) preparedness for climate-induced disaster risk reduction; j) information generation, education, communication, research and development and k) the creation of a database and preparation of policy, legislation and a plan of action related to climate change (NPC, 2012).

[4] From 1950/51 to 2001/02 the share of foreign aid in Nepal's budget was 29% (Economic Surveys/GoN cited in Shrestha, et al, 2004). The share of foreign aid in the country's development expenditure is much higher: 1980/81, it was 57.2%. In 2011 the share of external funding in the budget was about 25%.

Table 9 **Relevant categories in CCBC**

HIGHLY RELEVANT (1)	RELEVANT (2)	NEUTRAL (3)
> 60 per cent of total budget	20-60 per cent of total budget	< 20 per cent total of budget

Source: NPC (2012)

that Nepal spends USD 600 million on climate change activities seems on the higher side when viewed in the context of low spending by GoN ministries. In the first eight months of the fiscal year, 2014/15, the four key ministries (Physical Infrastructure and Transport, Urban Development, MoFALD and Irrigation) were able to spend only 22.4% (NRs. 20.51 billion out of NRs. 91.43 billion) and the MoSTE spent only 2.2%. Explaining the reasons for low spending in the Parliament's Public Affairs Committee, the GoN's Chief Secretary said that low capital spending was the result of procedural and coordination flaws.[5]

It is estimated that in 2011 around 80% (GoN 2011) of expenses on climate finance was related to adaptation activities and that, of this amount, 90% was used as capital expenditure. If the period from 2009 to 2014 is considered, only 45.8% of the amount that Nepal received as climate finance, roughly USD 538.24 million, was used in supporting adaptation activities. The recipients of the adaptation-related fund were the government (69.2%), INGOs (12.5%), the private sector (8.7%), multilateral agencies (7.7%), NGOs (0.9%) and others (1.0%). As for sectors, 44.4% was allocated to forest and biodiversity, 16.41% to disaster risk reduction, 3.2% to capacity-building activities, 9.1% to agriculture and food and 0.01% to urban settlements. The remaining 26.94% was allocated to other sectors.

[4] Nepal's lawmakers gave the following reasons for low expenditure: corruption in government offices, political interventions, lack of efficiency, flaws in policies and poor policy implementation (The Kathmandu Post 20, March 2015). Spending on climate financing needs to be viewed within this context

06 BUDGETARY PROCESS

Efforts to track climate finance must focus on the allocation and fund-flow along with its use in order to objectively analyze the efficiency and effectiveness. It is therefore important to review the roles of different government agencies in this process. The NPC, the National Development Council (NDC), the Ministry of Finance (MoF) and sectoral ministries all play a role in the planning and decision-making associated with the budgetary process. Government departments base the size of their financial budget on programs proposed for the new fiscal year, and ensure that the allocated budget is used effectively (Table 9 and Figure 9).
06 BUDGETARY PROCESS

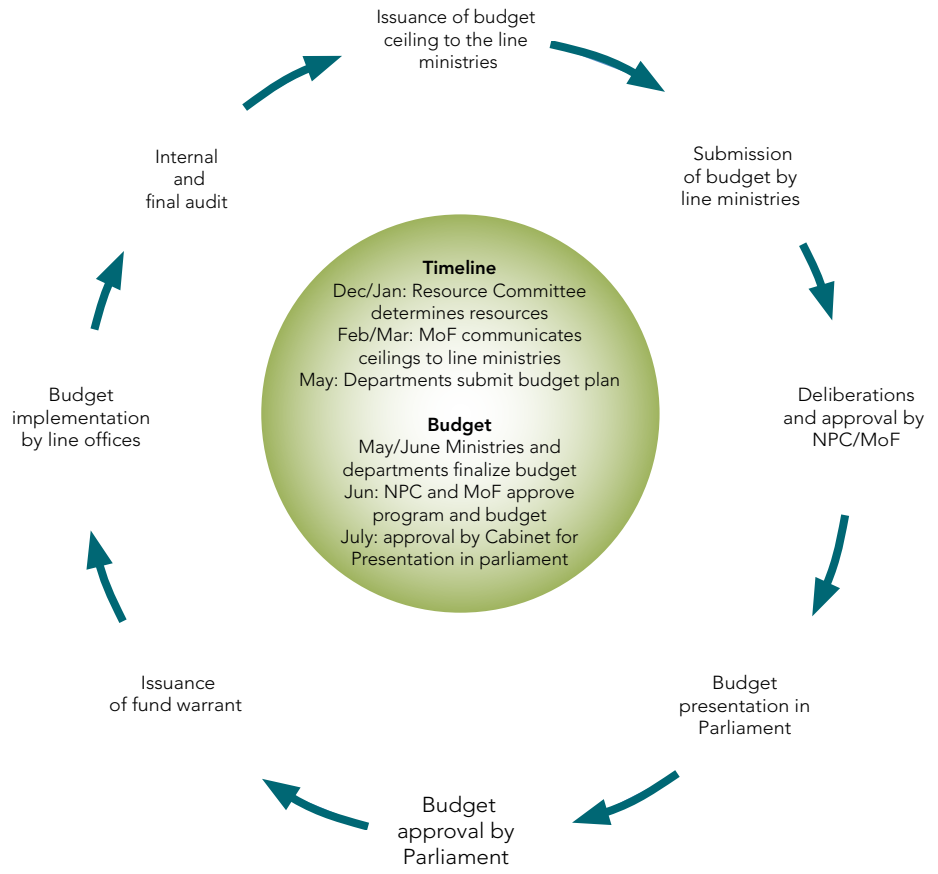
The budgetary processes begin when the NPC's Resources Committee (RC) releases a budget estimate for the new fiscal year. The RC assesses the resources available based on estimates of revenue, forecasts of foreign loans and grants, the potential for internal borrowings, and servicing of outstanding debt. The NPC then sends budget preparation guidelines to individual ministries along with the budget ceiling provided by the MoF. By March, each ministry is expected to have prepared and submitted its proposal of capital and recurring spending to the NPC and the MoF. After reviewing the proposed

Table 10 **The development planning and budgeting processes**

AGENCY	RESPONSIBILITY
National Planning Commission (NPC)	Formulating, implementing, monitoring and evaluating development policies, and preparing periodic and annual plans. Exploring internal-external resources and approaches to development. Assistance and advice to other government bodies. Consists of Resource Committee which allocates resources to achieve the targets set by periodic plans. Resource Committee provides budgeting guidelines and direction to other government bodies.
National Development Council (NDC)	Evaluate development plans. Provide planning directives to NPC. Identify national priority projects and programs and review them periodically
Ministry of Finance (MoF)	Oversee revenues and expenditures and maintaining a stable economy. Mobilizing and allocating resources. Managing public investments and expenditures. Strengthening productive capacity of public enterprises. Formulate annual estimates of income and expenditures.

Source: The Asia Foundation and ESP (2012)

FIGURE 9 **Budget cycle**



Source: The Asia Foundation and ESP (2012)

programs and budget, the MoF sends the proposal for cabinet approval. Thereafter, the MoF submits the annual estimate of revenue and spending for the new fiscal year to parliament in accordance with Article 93 (1) of the Interim Constitution. On the first day of the new fiscal year (the first day of the Nepali month of Shrawan, which generally falls on July 16), the parliament passes an advance bill to meet on-going expenditures.

6.1 Budget implementation

The MoF issues a document called the Red Book once the parliament approves the budget. The Red Book details the budget allocation for each ministry and department as well as the source of funding (donor-funding, donor-matching fund contribution or cash or in-kind grant). The GoN's total budget for both recurring and capital spending for any given program is documented in the Red Book. The MoF retains unallocated funds until the government decides on allocations to specific programs. The MOF issues authorization letters to the districts to use the funds upon approval of the budget.

6.2 Monitoring and control mechanisms

The Financial Procedure Act (1998) details the procedures for the use of funds. It makes secretaries, department heads and other heads of agencies responsible for

financial administration. It also specifies the functions of the Financial Controller General Office (FCGO) and district treasury controller offices (DTCOs) (specified in Table 11).

The audit system

The President appoints an Auditor General (AG) recommended by the constitutional council. The Auditor General Office (AGO) is responsible to promote financial governance and transparency in the public sector, and it does so through independent financial and performance audits of public resources. The AGO has unrestrained access to the accounts of all public agencies. All district-level DTCOs periodically report to the FCGO and AGO detailing the budget amount released and spent within the stipulated period. The FCGO is expected to carry out frequent internal audits of all government offices. The AG submits audit reports to the President, which are then sent to the parliament via the Prime Minister. The Public Account Committee (PAC) in the parliament scrutinizes and debates the reports.

The responsibility of ensuring that allocation, disbursement and use of funds are done in an accountable and transparent manner rests solely with the GoN. Allocation for climate change follows the same budgetary process. The GoN has also other initiatives such as the Climate Change Budget Code and the Aid Management Platform (AMP) to track allocations in the budget for climate change activities.

Table 11 Functions of FCGO and DTCO

FCGO	DTCOs
• Submits an annual consolidated financial statement of the government to the Auditor General's Office, along with a description of total expenditure. • Grants permission to open government accounts • Authorizes DTCOs to disburse budgets. • Oversees all government expenditure and consolidates annual financial statements. • Tracks revenue collection, other receivables and releases budgeted funds to government agencies on a quarterly basis. • Carries out internal audits through DTCOs.	• Monitor the expenditures of line agencies. • Make all payments to line agencies within two hours of receiving payment orders and the documents needed for fund release. This is a new function/ responsibility and is currently being piloted in selected districts.

Source: The Asia Foundation and ESP (2012)

Aid Management Platform

The AMP at the MoF is a platform for tracking the aid Nepal receives annually. The AMP provides details of all funding received and also helps to track climate finance.[6]

6.3 Finances and sub-national level governance

The structure of the local government, local government institutions (LGIs) and their accountability measures are important in tracking allocated finance. Under the Local Self-Governance Act (LSGA), each LGI is accountable to the community it represents.[7] The LSGA also specifies the responsibilities of DDCs, municipalities and VDCs that are expected to perform functions similar to that of the central government but with

[6] AMP is an online web-based information system accessible at http://amis.mof.gov.np/portal/. It includes details on the volume and disbursement of aid.

[7] Nepal last elected local bodies in 1998. The terms of the local representatives have expired five years later in 2001 and their terms were extended by a year till 2002. The local governments were dissolved and no new elections have been held. Successive governments have appointed officials to local bodies to work under the guidance of the MoFALD.

a focus on the districts, municipalities and villages, respectively. In addition to undertaking local socio-economic development, local bodies are also expected to perform quasi-judicial and mediation functions. They have a role in local planning and decision-making, resource mobilization, and in facilitating services.

Financial resources and resource-flow processes

The LSGA identifies three categories of local financial resources: (i) local revenues, (ii) grants, and (iii) allocations from sectoral ministries. Resources from sectoral ministries, particularly for agriculture, livestock, health and education, are part of the devolved activities. Once the MoFALD receives spending authority from the MoF, the ministry authorizes DDCs and municipalities to proceed with spending. The DDCs, through the Local Development Offices (LDOs), requests the DTCO to release budgets for the VDCs. Grants from the MoFALD and the DDC form a significant part of a VDC's budget. This budget has to be used within the fiscal year.

Each DDC has established a district development fund (DDF), which receives the budget for devolved sectors directly from the MoF. Financial authorization letters for devolved sector funds are sent to the LDO from the overseeing ministries. The LDO then authorizes the district level sectoral offices to distribute the funds in accordance with the guidelines of the respective ministries and departments. Sectoral district offices then request the LDOs to release funds. The DDC is responsible for maintaining accounts and carrying out internal audits of spending.

There are serious limitations that need to be addressed in order to effectively channel finance for local-level adaptation actions. Local development planning does not take into account the need to assessing local vulnerability for use to conceive plans and decide the size of the budget. It does not also take into account the need to increase transparency and accountability and overcome low institutional capacity and implementation level barriers.

Local planning and implementation

All local bodies are required to prepare annual and five-year plans following a 14-step planning process (Figure 10). Local plans of DDCs, VDCs and municipalities provide room for undertaking activities funded by both local resources and external donors. On paper, the local planning process foresees securing funding from internal sources, grants, sectoral development budgets and NGOs. The planning process of local bodies encompasses analysis of the comparative advantages of development alternatives through various approaches:

- Focus on disadvantaged and marginalized groups;
- Adherence to national targets and objectives;
- Commitment to the directives of the MoFALD, the NPC and sectoral departments; and
- The priorities of village and municipal councils.

The DDCs are responsible for formulating and implementing programs in four key sectors: agriculture, livestock, health and education. In recent years, many DDCs have established separate environment and energy divisions that focus on climate change activities. The VDCs do not have similar units.

Although the planning regulation requires that all stakeholders are involved, in practice, representatives of marginalized groups rarely attend the meetings at

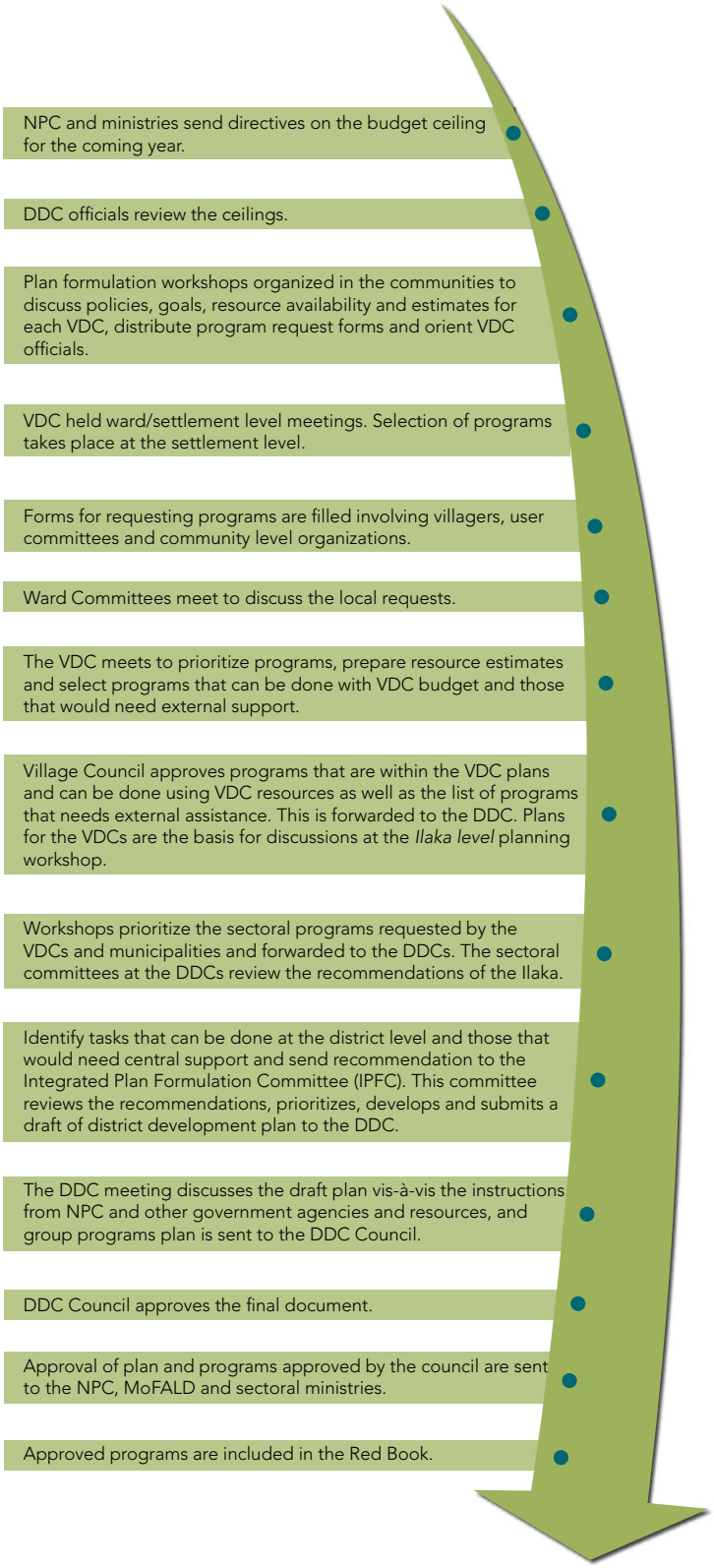
the DDCs and VDCs. Since 2006, the planning and decision-making processes of local bodies have emphasized the need of participation of all stakeholders, but the absence of locally elected officials remains a key constraint to ensuring the effectiveness of participatory processes.

Service delivery and structure

The GoN delivers public goods and services through local bodies and through the field units of sectoral ministries. In turn, local bodies provide certain designated services locally, and also facilitate service delivery from the centre (Table 12). Local bodies provide certifications, renewal of registrations and recommendations for different public services. They also provide services related to information and verification, financial assistance, resource mobilization, and social security. Like other government agencies the VDCs are required to display their citizen's charter to assist service seekers, but the study team found that many did not have displays, or had or poorly displayed the charters.

The LSGA specifies legal provisions and processes for implementing projects at locally through users committees. The LSGA law also specifies duties and responsibilities of those involved in implementing projects. It requires that NGOs be involved in implementing local development programs. It also allows activities requiring large technical and managerial abilities, such as building large infrastructures, to be outsourced. Other provisions require that all local programs implemented by NGOs be handed over to local bodies and be operated and maintained in accordance with agreements made between the local bodies and the NGOs. In practice, however, NGOs are not always involved and even if they are, the selection process is not transparent.

FIGURE 10 **The 14-step planning process**



Source: The Asia Foundation and ESP (2012)

Table 12 **Service delivery elements**

GOVERNMENT BODY	MAIN FUNCTIONS
Village Development Committee (VDC)	Agriculture; Rural drinking water; Construction and transport; Education and sports; Irrigation; Soil erosion; River control; Physical development; Health; Forest and environment; Language and culture; Tourism and cottage industry and Miscellaneous
Municipality	Finance; Physical development; Water resources; Environment and sanitation; Education; Sports and culture; Works and transport; Health; Social welfare; Industry and tourism and Miscellaneous
District Development committee (DDC)	Agriculture; Rural drinking water and settlement development; Energy; Works and transport; Land reforms; Land management; Women and disadvantaged people; Forest and environment; Education and sports; Wage labour; Irrigation; Soil erosion control and river training; Information and communication; Language and culture; Health and Tourism and cottage industry

Source: The Asia Foundation and ESP (2012)

07 PROGRAMS, DISTRICTS AND VDCs

The districts and VDCs included in the study, selected on the basis of climate change programs being implemented there, are shown in Figure 11.

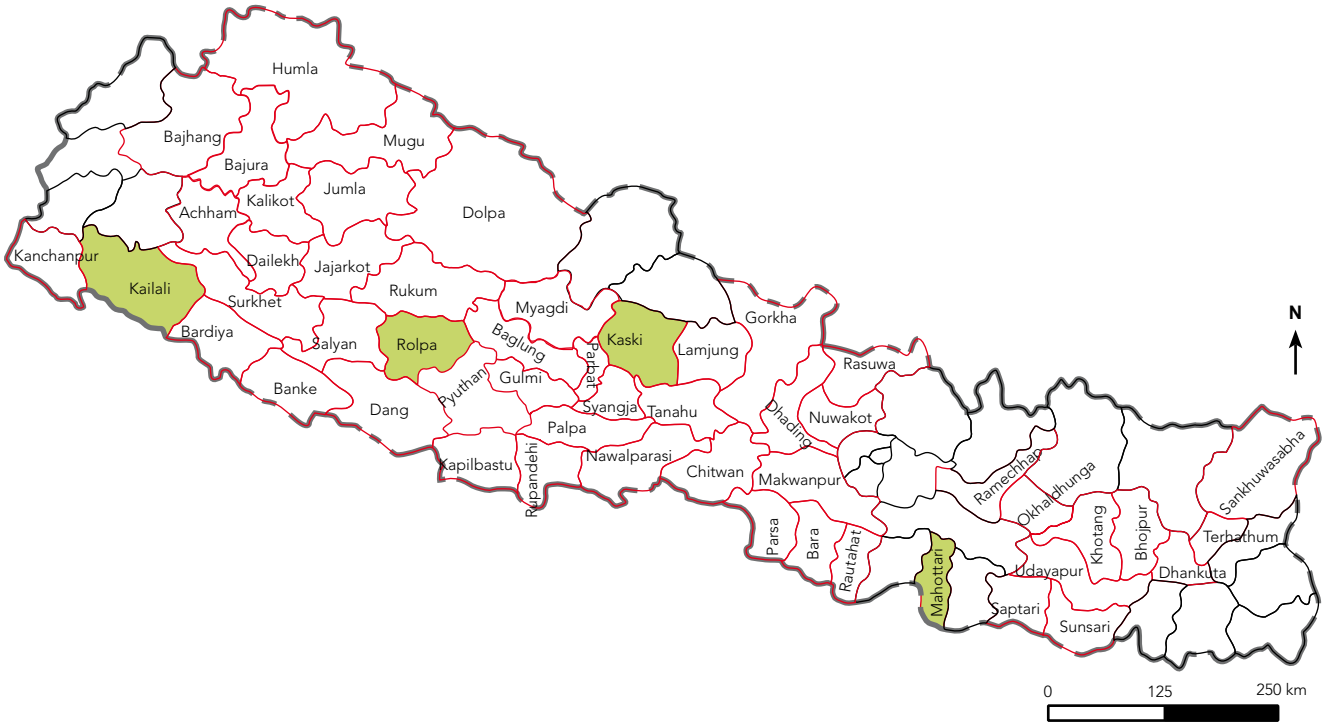
7.1 Programs

The five programs studied seek to promote climate change adaptation by focusing on natural resource management involving agriculture, food security and rural livelihoods, The CFGORRP also aims to look at flooding and GLOF. The geographic focus of the five programs also differs. While EbA is being implemented in one region (17 VDCs of the PMER) other programs cover a number of districts in different ecological zones. Hariyo Ban currently works in 29 districts in the Chitwan-Annapurna Landscape (CHAL) and Tarai Arc Landscape (TAL) regions areas, the NCCSP in 14 districts of the Mid- and Far-West regions, the MSFP in 61 districts and the CFGORRP in five districts. The immediate beneficiaries of these programs are people residing in the program VDCs. These programs are being implemented by different agencies (Table 12).

7.1.1 Ecosystem based Adaptation (EbA)

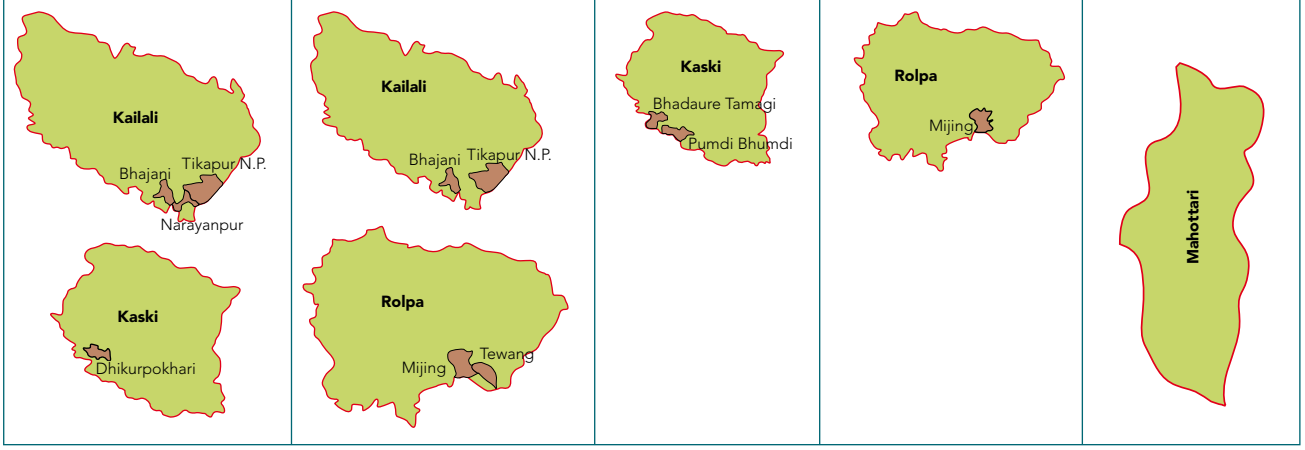
EbA aims to help communities to adapt and build resilient ecosystems capable of sustainably providing services to facilitate people's livelihoods. The program is funded by the German Federal Ministry for the Environment, and Nature Conservation and Building Nuclear Safety (BMUB) through its International Climate Initiative, and is jointly implemented by the International Union for Conservation of Nature (IUCN), the United Nation Environmental Program (UNEP), the United Nations Development Program (UNDP) and the GoN. The program began in August 2012 and is expected to end in December 2015 (It obtained a no-cost extension in December 2014). The pilot phase of the project was launched in Nepal, Peru and Uganda. In Nepal, the EbA aims to enhance the capacity of local communities, demonstrate the value of EbA measures for the continued provisioning of ecosystem services, and to help strengthen the institutional capacity of key national actors. It also aims to build integrated ecosystem resilience options within national, sub-national and local level plans. The program is currently underway in the PMER, which covers 17 VDCs in Kaski, Parbat and Syangja districts. The budget for the EbA program is USD 3.3 million.

FIGURE 11 **Districts and VDCs of the selected programs**



Program Districts

Hariyo Ban	NCCSP	EbA	MSFP	CFGORRP
Kanchanpur, Kailali, Surkhet, Bardiya, Salyan, Banke, Dang, Myagdi, Gulmi, Parbat, Kaski, Lamjung, Gorkha, Syangja, Palpa, Nawalparasi, Tanahu, Chitwan, Dhading, Rasuwa, Nuwakot, Makawanpur, Parsa, Bara, Rautahat	Humla, Mugu, Dolpa, Bajura, Jumla, Achham, Kalikot, Kailali, Bardiya, Dailekh, Jajarkot, Rukum, Rolpa	Kaski, Parbat and Syangja	Bajhang, Kalikot, Achham, Dailekh, Jajarkot, Salyan, Rukum, Rolpa, Dang, Pyuthan, Baglung, Myagdi, Parbat, Kapilbastu, Rupandehi, Nawalparasi Ramechhap, Okhaldhunga, Khotang, Bhojpur, Sankhuwasabha, Terhathum, Dhankuta	Mahottari, Sankhuwasabha, Udayapur, Saptari, Sunsari
Study districts and VDCs				



District selected for study VDCs selected for study

7.1.2 Nepal Climate Change Support Program (NCCSP)

NCCSP is funded by the Department for International Development (DFID) and the European Union (EU) and is implemented by the GoN with technical assistance from the UNDP. The program began in August 2013 in 13 districts of Mid-West Nepal and will conclude in December 2015. The goal of NCCSP is to reduce the negative impacts of climate change and to improve livelihoods through climate change impact mitigation and adaptation measures. The key objective is to enhance the capacity of the government, particularly the MoSTE and MoFALD, as well as NGOs, CBOs, the private sector, communities and institutions to implement Nepal's Climate Change Policy (2011); assess the adaptation needs and promote adaptive practices in order to increase the resilience of climate-vulnerable and marginalized communities in the region. The budget for the NCCSP is USD 14.6 million.

7.1.3 Multi Stakeholder Forestry Program (MSFP)

The MSFP is an initiative of the GoN funded by the Government of Finland (GoF), the Swiss Agency for Development and Cooperation (SDC) and the DFID. The overall objective of the project is to improve livelihoods and the resilience of poor and disadvantaged groups dependent on forest resources and to tackle the risks associated with climate change. The program began in July 2011 and has an initial transition phase (2012–15), followed by a full implementation phase (2016–21). It aims to help the GoN develop a forestry sector strategy and establish a multi-stakeholder national body to manage the implementation of all activities outlined in the program. The MSFP covers 61 districts, including the 23 implementation districts being supported in the transition phase—Terhathum, Dhankuta, Sankhuwasabha, Bhojpur, Khotang, Okhaldhunga, Ramechhap, Baglung, Parbat, Myagdi, Nawalparasi, Kapilvastu, Rupandehi, Rukum, Rolpa, Salyan, Pyuthan, Dang, Kalikot, Jajarkot, Dailekh, Achham and Bajhang. The budget for the MSFP is USD 228 million.

7.1.4 Hariyo Ban

The five-year long USAID-funded Hariyo Ban program that started in August 2011 and has three core themes. These are biodiversity conservation, sustainable landscape and climate adaptation. The overall objective of the program is to reduce the adverse impacts of climate change, and the potential threat that climate change poses to Nepal's biodiversity. Livelihoods, gender and social inclusion are crosscutting themes. The program is being implemented in 29 districts. Of the total, 19 are n the Chitwan-Annapurna Landscape (CHAL) and 14 in the Tarai Arc Landscape (TAL) regions while four districts overlap. A consortium of four organizations–World Wildlife Fund (WWF), Cooperative for Assistance and Relief Everywhere (CARE), Federation of Community Forestry Users Nepal (FECOFUN) and National Trust for Nature Conservation (NTNC) implement the program. The WWF serves as the managing partner of the program. The objectives of the program are i) to reduce threats to biodiversity-integrated landscapes; ii) to build the structures, capacity and operations necessary for effective and sustainable landscape management, especially by reducing emissions from deforestation and forest degradation (REDD+); and iii) to increase the ability of the targeted human and ecological communities to adapt to the adverse impacts of climate change. The program has a budget of USD 29.9 million.

Table 13 **Sectors, geography, actors and beneficiaries**

PROGRAM	SECTOR	GEOGRAPHICAL AREA	IMPLEMENTATION ACTORS	IMMEDIATE BENEFICIARY
EbA	Ecosystem level (land, forest and water and other services)	17 VDCs of Panchase (9 core and 7 buffer) of Kaski, Syangja and Parbat	National level: UNDP, IUCN and UNEP and MoFSC and MoSTE Local level: Government line agencies, NGOs	Local people who depend on Panchase area for their livelihood, Businessmen and hoteliers of lake side area (Phewa Lake)
Hariyo Ban	Biodiversity, Landscape sustainability, Climate change adaptation	16 districts of TAL and CHAL area (both mountainous and Tarai)	National level: WWF, CARE, NTSC, FECOFUN Local level: NGOs, government line agencies, forest and other user groups, ACAP	Local people of project implemented communities/ VDCs
NCCSP	Agriculture and food security, climate induced disaster, Forest and biodiversity, water resource and energy	70 VDCs of 14 districts of Mid and Far western Region (both Mountainous and Tarai)	National level: UNDP, MoSTE, MoFALD Local level: DDCs/VDCs	Local people of project implemented communities/ VDCs
MSFP	Policy, private sector promotion, rural livelihood, forestry and climate change, and program management	61 districts (first four years 23 districts covered)	National level: DFID, SDC, GoF, and MFSC Local level: Government line agencies, NGOs, private sector	Local people of project implemented communities/ VDCs
CFGORRP	Sedimentation control, flood proofing, institutionalization of flood risk management, flood preparedness; GLOF risk management (Imja lake), GLOF early warning,	Districts: Mahottari, Siraha, Saptari and Udayapur; GLOF risk district of Solukhumbu	National level UNDP, GEF, DHM (MoSTE), DSCWM, DWIDP Local level: Farmers and user groups DDC, VDC	Local people of project implemented communities/ VDCs

Source: MoFSC (2011, 2012), UNDP (2013b), WWF Nepal (2012) and MoSTE (2012)

7.1.5 Community-Based Flood and Glacial Lake Outburst Risk Reduction Program (CFGORRP)

The CFGORRP is the first program supported by the Least Developed Countries Fund (LDCF) and is administered by the Global Environment Facility (GEF). The program focuses on climate change adaptation and climate-induced disaster risk management to reduce human and material losses from a glacier lake outburst flood (GLOF) in Imja Lake in Solukhumbu District. It also aims to reduce catastrophic and recurrent flooding events in four flood-prone districts of Mahottari, Siraha, Saptari and Udaypur. UNDP is coordinating the program with the Department of Hydrology and Meteorology (DHM) as the lead implementing agency. The budget for the CFGORRP is USD 7.25 million.

The sectors, geography, actors and beneficiaries of the five programs studied are summarised in Table 13. The expected outputs of the programs are summarized in Table 14.

7.2 Introduction to the study districts

Table 15 presents background, socio-economic and climatic information of the districts included in the study. Two of the sample districts are in the hills and mountains – Rolpa and Kaski – while the other two are in the Tarai – Mahottari and Kailali. Area-wise, Mahottari District is the smallest (1,002 km2) and Kailali the largest (3,235 km2) district. Kailali also has the largest population and household size, while Rolpa has the smallest population and household size. Mahottari has the highest population density (626 per km2). Rolpa has no municipality. The other

Table 14 **Summary of expected outcome and outputs**

PROGRAM	OUTCOME	OUTPUT
EbA	Environment and, energy and climate change mainstreamed into national and local development planning with a focus on gender, social inclusion, and post conflict environmental rehabilitation.	Priority adaptation actions implemented in selected districts to build communities' resilience to climate change.
NCCSP	People living in areas vulnerable to climate change and disasters benefit from improved risk management and are more resilient to hazard-related shocks	Vulnerable populations have increased knowledge about disaster risk management and capacity for climate change adaptation and mitigation of risks
MSFP	Government and non-state actors will be jointly and effectively implementing inclusive forest sector strategies, policies and plans Private sector (farmers, entrepreneurs, and financial institutions) increase job creating investment in the forestry sector Rural communities – especially poor, disadvantaged and climate vulnerable people and households - benefit from local forest management and other investments Forest and trees sustainably managed by government, communities and private sector and climate resilient	Not mentioned
Hariyo Ban	Not mentioned	To reduce threats to biodiversity in target landscapes; To build the structures, capacity, and operations necessary for effective sustainable landscape management, especially reducing emissions from deforestation and forest degradation and To increase the ability of target human and ecological communities to adapt to the adverse impacts of climate change.
CFGORRP	People living in areas vulnerable to climate change and disasters benefit from improved risk management and are more resilient to hazard related shocks.	Water level in Imja glacier lake reduced by three meters and flood risk mitigation measures adopted in four most vulnerable Tarai districts Vulnerable populations have increased knowledge about disaster risk management and capacity for climate change adaptation and mitigation of risks

Source: MoFSC (2011, 2012), UNDP (2013a), WWF Nepal (2012) and MoSTE (2012)

three districts have either one or two municipalities in their boundaries. Kaski has the highest literacy rate (82.4%) of the four while Mahottari has the lowest (46.4%).

The climatic features of the four districts vary. Mahottari and Kailali have tropical climate whereas Kaski and Rolpa have subtropical to alpine climates. The maximum annual temperature in Mahottari is 32.3°C while it is 25.8°C in Rolpa. The highest minimum average temperature is in Kailali, at 17.5°C, while the lowest is in Rolpa at 12.5°C. Rainfall patterns also differ. Lumle of Kaski District gets the highest annual average precipitation (5,412 mm) whereas Jaleswar in Mahottari has the lowest annual average precipitation (937 mm).

7.3 Introduction to the VDCs

Seven VDCs and one municipality were selected for more detailed investigations. Only a macro-level examination was undertaken in Mahottari District as no community-level activity was being implemented at the time of the study. Details of the studied VDCs are in Table 16.

Table 15 **Socio-economic and climatic features of the study districts**

FEATURES	DISTRICTS			
	KASKI	ROLPA	KAILALI	MAHOTTARI
SOCIO-ECONOMIC				
Geographic region	Western region (Mid-hill to mountain)	Mid-western region (Mid-hill to mountain)	Far-western region (Tarai)	Central region (Tarai)
Headquarter	Pokhara	Liwang	Dhangadhi	Jaleswar
Meter above sea level (masl)	450 to 8,091	701 to 3,639	109 to 1,950	61 to 808
Area sq. km.	2,017	1,879	3,235	1,002
Total HHs	125,673	43,757	142,480	111,316
Total population	492,098	224,506	775,709	627,580
Average HH size	3.92	5.13	5.44	5.64
Population density per sq. km.	244	119	240	626
Total VDC/Municipality	43/2	51/0	42/2	76/1
Literacy rate %	82.4	60	66.3	46.4
CLIMATIC				
Annual average temperature (max) Degree Celsius	26.6	25.8	32.1	32.3
Annual average temperature (min) Degree Celsius	15.0	12.1	17.5	21.7
Highest annual average precipitation (mm)	5,412.0 (Lumle)	1,651.0 (Liwang) (annual average)	2,044.0 (Godawari)	1,068.0 (Gausala)
Lowest annual average precipitation (mm)	3,390.0 (Ghandruk)		1,387.0 (Sitapur)	937.0 (Jaleswar)

Source: For Socio-economic information - CBS (2011)
For climatic information - DHM data of about last 30 years, calculated by ISET-Nepal

Table 16 **Details of the VDCs studied**

DISTRICT	VDC NAME	AREA (km²)	ALTITUDE (masl)	POPULATION			MAJOR ETHNIC GROUPS
				MALE	FEMALE	TOTAL	
Kaski	Pumdi Bhumdi	35.01	700 - 1,200	3,358	4,033	7,391	Brahmin, Chhetri, Dalit
	Bhadaure Tamagi	15.07	841 - 2,517	2,361	2,237	4,598	Brahmin, Chhetri, Gurung, Kami, Sarki and Pariyar
	Dhikurpokhari	27.23	841 - 2,074	3,288	4,030	7,318	Brahmin, Chhetri, Gurung, Kami, Sarki and Pariyar
Kailali	Tikapur (Municipality)	71.04	145 - 161	26,893	29,234	56,127	Tharu, Brahmin /Chhetri, Hill Janajatis, and Dalits
	Narayanpur	26.36	179	5,210	5,997	11,207	Tharu, Brahmin /Chhetri, Hill Janajatis, and Dalits
	Bhajani	28.98	179	7,507	7,410	14,917	Tharu, Brahmin /Chhetri, Hill Janajatis, and Dalits
Rolpa	Tewang	23.00	1,210 - 2,017	1,597	1,806	3,404	Magar, Brahmin /Chhetri, Newar and Dalits
	Mijing	30.00	710 - 1719	3,516	3,992	7,508	Magar, Brahmin /Chhetri, Newar and Dalits

Source: VDC profiles (2013)

08 FINDINGS OF THE STUDY

The findings of the study are as follows

8.1 Composition of participants

This study included diverse stakeholders (Table 17). Both men and women were included for each caste and ethnic group.

8.2 Vulnerability assessment

The approaches used across the five programs in assessing climate change vulnerability and selecting VDCs, wards and/or communities for program implementation are summarized below. Comparing these approaches helps in developing conceptual clarity on how target area beneficiaries are selected, and how effective the mechanisms are in reaching the target groups in terms of focus and budget allocation.

EbA

EbA used the Climate Resilience Framework (CRF) to assess ward-level vulnerability in PMER. It used 32 indicators across three variables – exposure, sensitivity and adaptive capacity – to rank 153 wards in 17 VDCs for current vulnerability. Vulnerability assessment was also carried out at the sub-watershed level. The vulnerability impact assessment at sub-watershed scale was then integrated with future climate change scenarios to assess future vulnerability. This scenario was then used to identify options to build resilience at the ecosystem level. To develop intervention strategies, the approach considered physical, social and institutional attributes.

Hariyo Ban

The program followed these steps: i) identification of vulnerable wards, vulnerable communities and degraded areas; ii) building awareness of communities to climate change impacts; iii) assessment of climate change vulnerability; iv) formulation of participatory

Table 17 Composition of participants

TOTAL NUMBER	GENDER		CASTE/ETHNICITY				
	MALE	FEMALE	BRAHMIN/CHHETRI/THAKURI	JANAJATI	DALIT	MADHESHI	OTHERS
141	118	23	74	21	7	25	10
%	84	16	53	15	5	18	9

adaptation plans; and v) preparation of a framework for participatory M&E and reflective learning. The steps, purposes and tools used in the vulnerability assessment, according to the program implementation manual, are shown in Table 18.

NCCSP

NCCSP used the LAPA framework to integrate climate change adaptation and resilience into local level planning through bottom-up, inclusive, responsive and flexible approaches. The framework has proposed four guiding principles (Table 19). The steps are as follows:

Table 18 VIA purpose and tools

STEP	PURPOSE	TOOLS
Climate Vulnerability assessment	To identify climate vulnerable communities, households and individuals in wards and villages, and ecosystem vulnerability.	Hazard mapping; vulnerability mapping; resource mapping; hazard and risk impact analyzes; differential vulnerability matrix; participatory well-being ranking; ecosystem vulnerability analysis; climate information analysis and scenario planning; community visioning exercise; service provider analysis.

Source: WWF Nepal (2014b)

Table 19 Four guiding principles of LAPA framework

PRINCIPLE	EXPLANATION
Bottom up planning	Consideration of the needs and resources of the climate vulnerable people including knowledge, skill and practices of the local communities and stakeholders
Inclusive planning	Identification and integration of the needs of households and communities at most risk to climate change, economically poor, deprived of public services and socially disadvantaged households and communities
Responsive	Immediate, efficient and effective delivery of adaptation services to climate vulnerable communities and households.
Flexible	Immediate delivery of administrative, financial and institutional services to implement adaptation actions effectively.

Source: MoSTE (2011)

Step 1: Identification of vulnerable VDCs and municipalities

The NAPA vulnerability ranking was used as the starting point for assessment.

- Climate-vulnerable districts were identified on the basis of exposure to climate hazards, sensitivity and adaptive capacity,
- Within the most vulnerable districts, information on the resilience of the enabling systems and resources that people depend upon to adapt in each VDC and municipality was collated, and
- The VDCs and municipalities with the least resilient systems and resources were ranked as those most vulnerable to the impacts of climate change.

Step 2: Identification of vulnerable wards

- Information on the resilience of enabling systems and resources to current and future climate change in each ward was collated, and
- Wards with the least resilient enabling systems and resources were ranked as most vulnerable.

Step 3: Identification of vulnerable households/communities

- Communities with the least access to the services provided by systems and resources were identified,
- The capacity of communities to cope with the impacts of climate change on enabling systems and resources was also identified, and
- Communities with the least access to services and capacity to deal with climate change impacts were ranked as the most vulnerable.

MSFP and CFGORRP

MSFP followed the LAPA framework to assess vulnerability, while the CFGORRP used the Vulnerability Impact Assessment (VIA) approach developed under the

Local Disaster Response Management Planning (LDRMP) initiative. Attempts to obtain details about the assessment during the study were unsuccessful.

8.3 Fund disbursement

Actual spending in 2012-13 was used to compare the sizes of the district budgets, which include allocations for climate change activities. Kailali had the most projects and the largest budget, while Mahottari had the least number of projects and smallest budget. This district also had the lowest per capita disbursement of aid (Table 20).

Budgets allocated for climate change adaptation across the five studied programs are compared in Table 21. The actual disbursement in 2012-13 was highest in the MSFP program, followed by the NCCSP, EbA and the GFGORRP. The NCCSP had the highest budget size probably because it covered the largest area.

8.4 Fund-flow mechanisms and institutional arrangements

EbA

Fund flow under EbA involved multiple national and international agencies, and decision-making had several stages (Figure 12). The Federal Ministry of Germany makes funds available to the Department of Environment, Nature Conservation and Building Nuclear Safety after which funds are transferred to the UNEP HQ Trust Fund. Once received, the money is allocated to the UNDP Country Office in Nepal; UNEP Regional Office, Bangkok; and the Nepal office of IUCN.

Nepal's Ministry of Forest and Soil Conservation (MoFSC) leads the implementation through the Department of Forests (DoF) with the MoSTE playing a coordinating role. The UNDP's share of the funding is made available to the dedicated account of the Project Management Unit (PMU). From there, the amount is channeled directly to district line agencies, which make funds available to CFUGs and other user groups to implement planned local activities. District Forest Offices implement community activities through CFUGs, and also provide funds to the Panchase Protected Forest Main Council (PPFMC). The PPFMC implements activities through its local chapters.

The regional office of UNEP in Bangkok channels funds through government agencies, institutions and research organizations. The EbA budget is not reflected in the MoF's Red Book, and

Table 20 Number of programs, population and per capita disbursement (USD)

DISTRICT	POPULATION	NO OF PROJECT (ON AND OFF BUDGET)	ACTUAL DISBURSEMENT FY 2012-13	PER CAPITA DISBURSEMENT
Kaski	492,098	43	12,030,907	24
Rolpa	224,506	41	7,007,479	31
Kailali	775,709	72	15,977,605	21
Mahottari	627,580	46	5,317,584	8

Source: MoF (2011)a, and MoF (2012)

Table 21 Studied projects and the actual disbursement in 2012-13 (USD)

PROGRAM	DONOR	ACTUAL DISBURSEMENT
Ecosystem Based Adaptation in Mountain Ecosystems (EbA)	UNEP/UNDP	590,000
Nepal Climate Change Support Program: Building Climate Resilience in Nepal (NCCSP) (for MoSTE and AEPC)	DFID, EU	4,345,595
Multi Stakeholder Forestry Program (MSFP) (supported by DFID, Finland, SDC)	DFID, Finland, SDC	67,26,570
Hariyo Ban	USAID	
Community Based Flood & Glacial Lake Outburst Risk Reduction (CFGORR)	GEF/UN	15,322

Source: MoF (2011)a and MoF (2012)

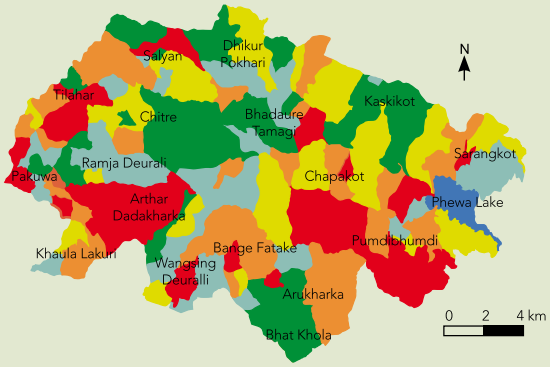
Vulnerability indexes of the studied VDCs

An attempt was made to rank vulnerability at the wards of three VDCs and one municipality. In Kaski, the method proposed by Dixit et al. (2015) was used to rank the wards for vulnerability. For each VDC, wards were ranked and color-coded areas into very high, high, moderate, low and very low vulnerability. The purpose of this exercise was to check if adaptation activities planned and implemented were indeed targeted at the most vulnerable ward and people. The approach used could systematically rank the wards for vulnerability and planning of adaptation activities. It could help establish compatibility between policy of the GoN and the program. All programs had ranked vulnerability differently and lacked a coherent approach. For instance, both the MSFP and the NCCSP used an approach similar to that which ISET-Nepal developed for EbA while the CFGORRP followed the LDRMP procedure and Hariyo Ban used landscape and river basin vulnerability assessment tool. Each program had developed separate vulnerability maps and prioritized investments accordingly. As a result correlation between vulnerability and the adaptation activities was difficult to establish across the programs.

Vulnerability ranking at the ward and watershed levels of the studied VDCs

MAP A

PMER, Kaski (ward level)



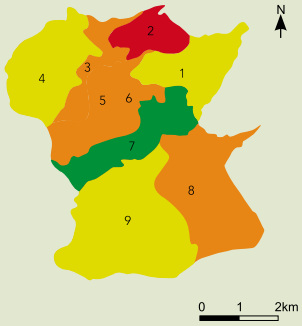
MAP B

PMER, Kaski (watershed level)

Source: Dixit et al., (2014)

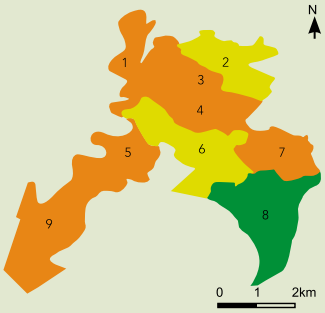
MAP C

Mijing VDC, Rolpa (ward level)



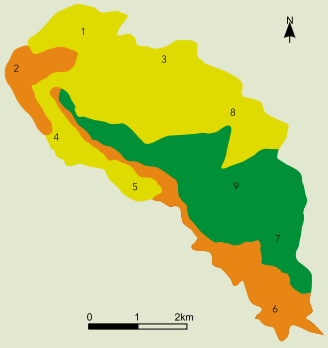
MAP D

Tewang VDC, Rolpa (ward level)



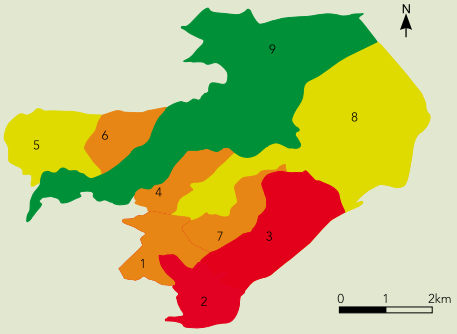
MAP E

Narayanpur VDC, Kailali (ward level)



MAP F

Tikapur Municipality, Kailali (ward level)



Very high | High | Moderate | Low | Very low | Sand

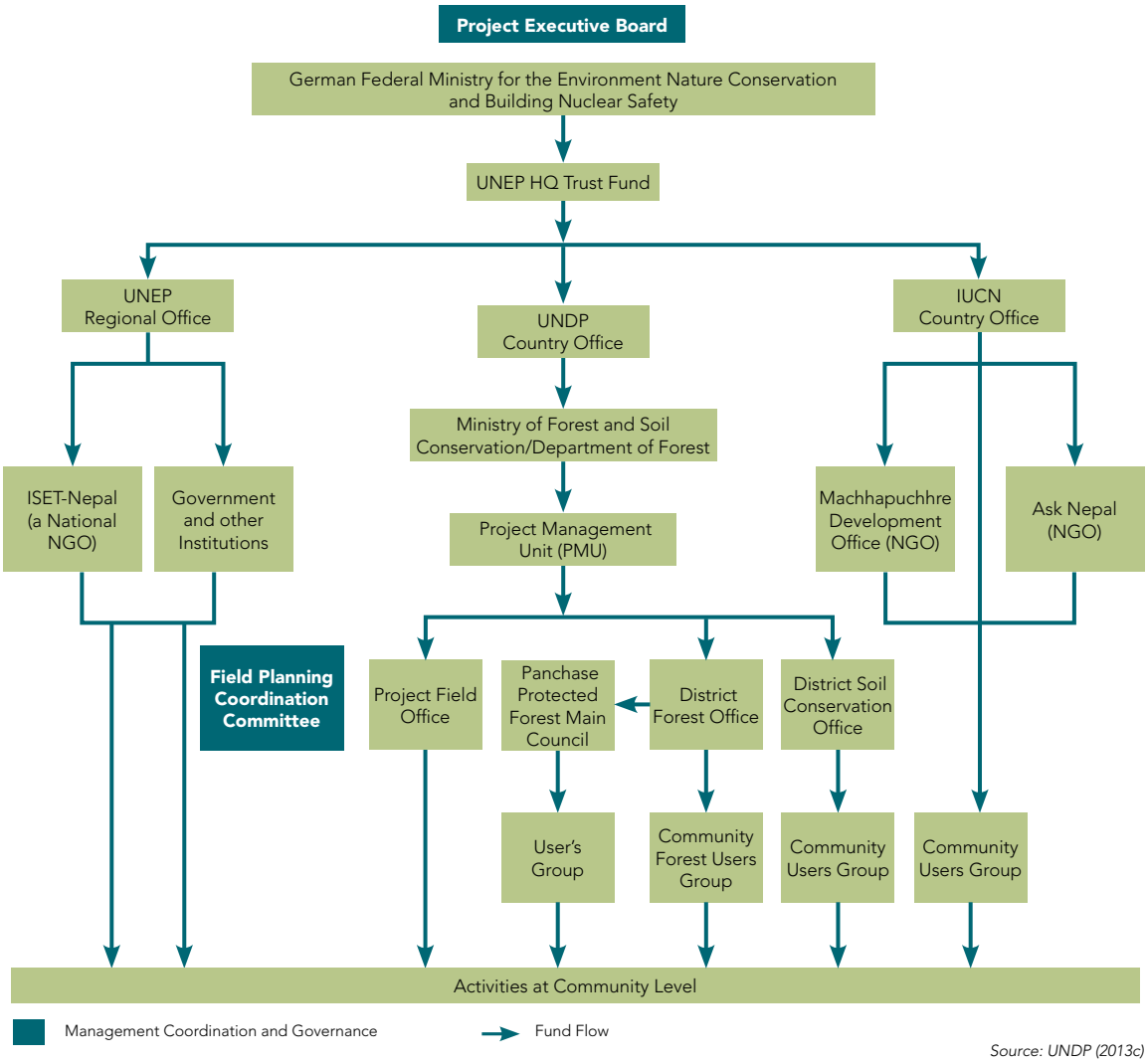
not all agencies involved in the program receive financial resources even though they are part of the project governing system. For example, neither the project executive board nor the Field Planning Coordination Committee receives any funds. In fact, they are not involved in any type of transaction. Their role is limited to the planning, coordination and approval of program activities, and advisory support.

IUCN channels the money through NGO service providers, such as Machhapuchhre Development Organization (MDO) an NGO working in Kaski District and Ask Nepal, another NGO working in Syangja. IUCN also implements activities at the local level.

NCCSP

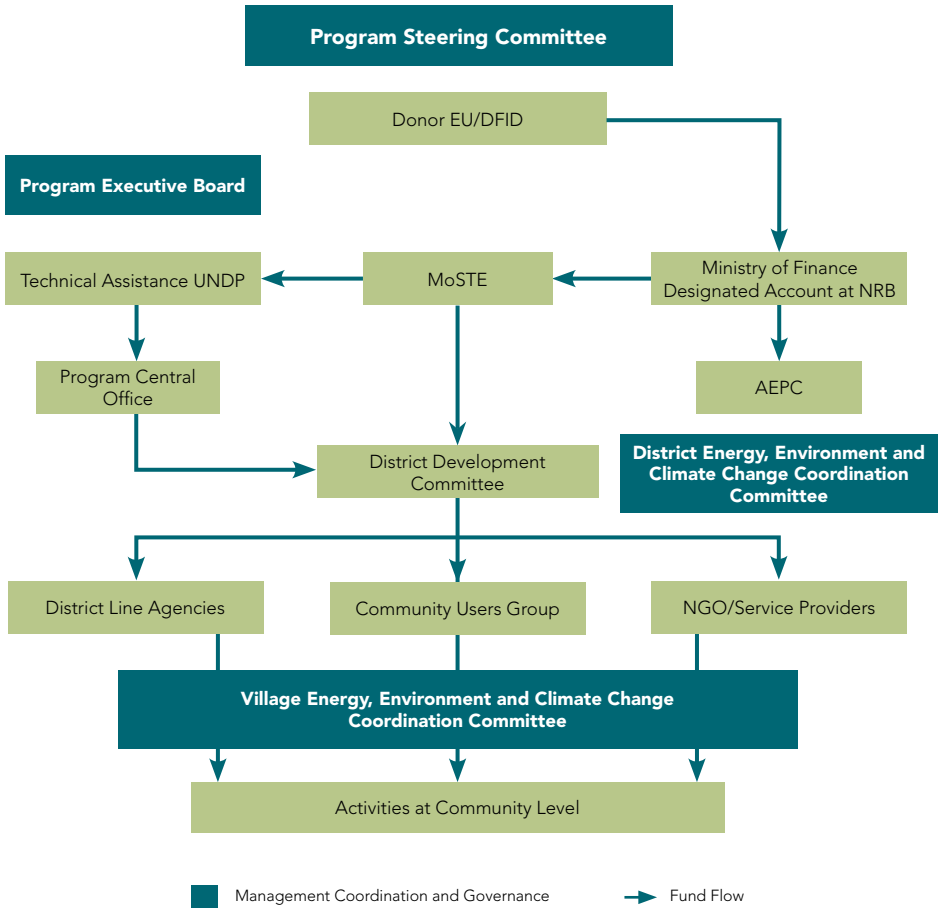
The project executive board under the program steering committee is the formal decision-making body for the overall management and implementation of the program. At the local level, Village Energy and Environment Climate Change Coordination Committees (VEECCCC)

FIGURE 12 **Fund flow and institutional mechanism**



Source: UNDP (2013c)

FIGURE 13 **Fund flow and institutional mechanism**



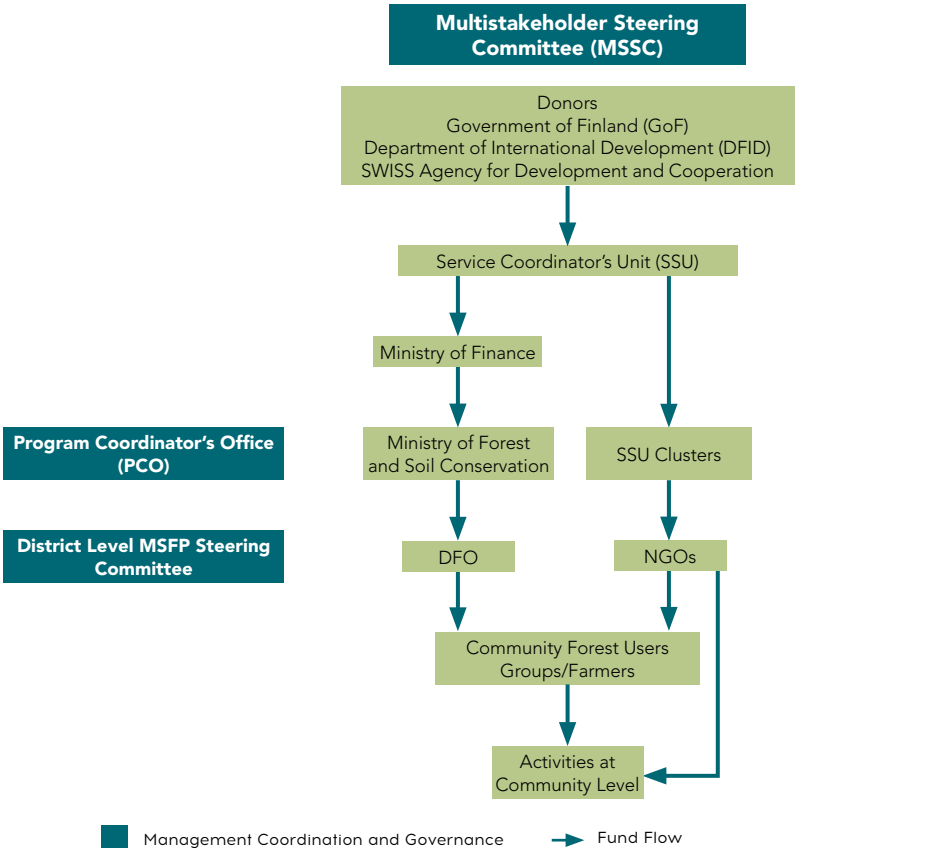
coordinate to provide technical inputs to community plans. These plans are then submitted to the District Development Committee for revision and approval. The MoSTE receives funds received from the MoF. The MoF also transfers a percentage of the funds to the Alternative Energy Promotion Centre (AEPC) for supporting activities relating to alternative energy promotion.[8] Part of the fund at the MoSTE goes to UNDP, which then provides money to DDCs through the program's central office. The MoSTE also gives a share of the fund directly to DDCs and, through this body, to the district level line agencies, community user groups and service providers. The money received by the district line agencies is used to support community activities through user groups, while line agencies provide technical inputs and community level service providers (NGOs) directly implement activities (Figure 13). The District Energy and Environment Climate Change Coordination Committee (DEECCCC) transfers the money to the bank accounts of the user groups.

MSFP

The SDC-Nepal Office provides funds (on behalf of the other donors) to a Service Support Unit (SSU) created for the

[8] This study did not examine the fund utilization by AEPC

FIGURE 14 **Fund flow and institutional mechanism**



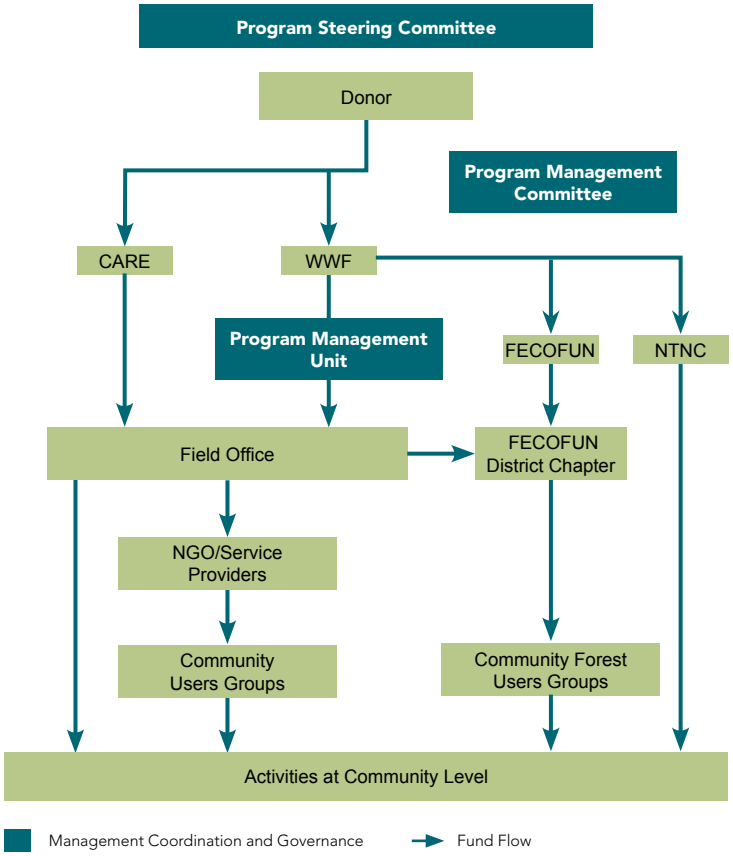
Source: MoFSC (2011)

program, which then channels approved funds in two different ways. First, the SSU channels money to the MoF and then, through it, to the MoFSC. About 36% of the total funds channeled through SSU is reflected in the MoF's Red Book. From the MoFSC, the funds go to the DFO that leads the implementation in the program districts. This agency then provides funds to CFUGs and farmers to implement planned activities. Secondly, the SSU also channels money to SSU clusters and other service providers (including NGOs) responsible for implementing activities at their level. SSU clusters also receive money for M&E, guidance and supervision, as well as for the provision of technical support to NGOs. SSU clusters do not provide any fund to user groups or communities. In other words, about 64% of the funds channeled through the SSU to other service providers are not reflected in the Red Book (Figure 14).

Hariyo Ban

Approved USAID funds are channeled through the WWF to FECOFUN and NTNC, and USAID provides direct funding to CARE Nepal. Money from CARE Nepal and the WWF goes to their respective district-level field offices that implement the activities at the community level. They also provide money to NGOs and community service providers. Field offices provide funds to the FECOFUN's district chapters. The chapters also receive

FIGURE 15 **Fund flow and institutional mechanism**

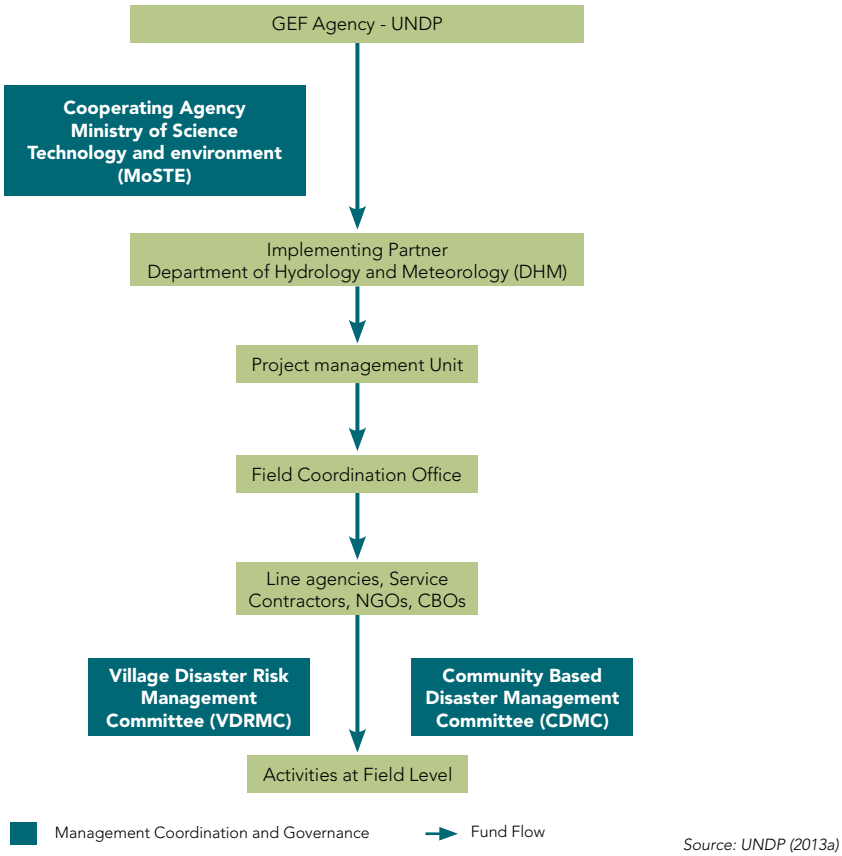


funds from the head office of Hariyo Ban. The FECOFUN's district chapters provide money to communities through CFUG. The money received by the NTNC goes towards community programs in CHAL districts through Annapurna Conservation Area Project (ACAP) (Figure 15).

CFGORRP

Funds from the LDCF directly go to the Department of Hydrology and Meteorology, which is the implementing partner under the MoSTE and is in-charge of coordinating the program. The department then provides money to line agencies, service contractors, NGOs and CBOs working in the district to implement activities at the district and community levels. Since the program aims to reduce the risks of floods and GLOFs, other government departments working in the sector are also involved in implementing its activities at the district and community levels. The other organizations play coordinating and supporting roles (Figure 16). The amount of funds channeled to different activities in consecutive years, especially the recent ones, is not known. Although there are guiding principles for the channeling funds, the details available were limited.

FIGURE 16 **Fund flow and institutional mechanism**



Source: UNDP (2013a)

8.5 Share of budget

EbA

Out of the total budget (USD 3,372,637), the UNDP receives the largest share (51%) followed by IUCN (28%) and UNEP (21%). Of the total budget, 63% was allocated to core climate change activities and 37% to administration and logistics. UNDP's administrative costs (46%) were the highest, followed by that of IUCN and UNEP (Table 22).

Table 22 **Total budget allocation (Organization-wise) for the EbA**

TOTAL BUDGET USD 3,372,637	ORGANIZATIONAL SHARE PER CENT	PER CENT SHARE		
		ACTIVITIES	ADMINISTRATION/ LOGISTICS	TOTAL
IUCN	28	65	35	100
UNEP	21	80	20	100
UNDP	51	54	46	100
Total	100	63	37	100

Source: MoFSC (2012)

FIGURE 17 **IUCN budget allocation**

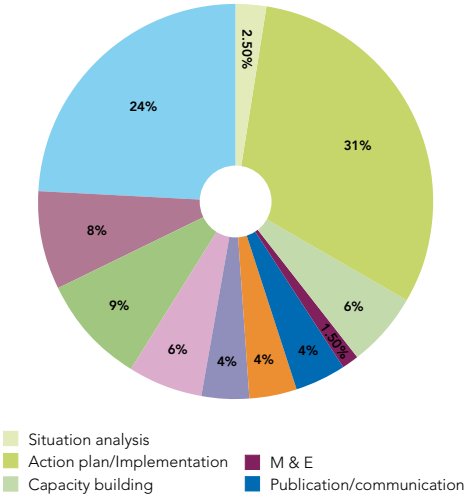
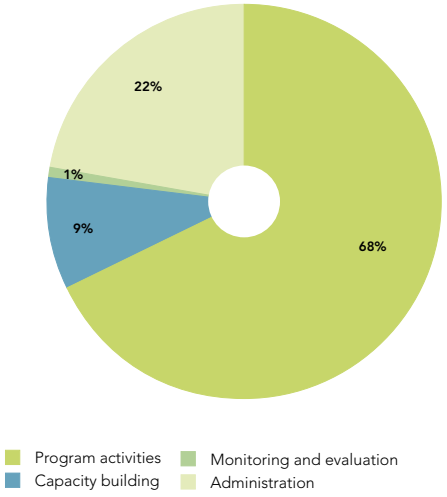


FIGURE 18 **MDO total budget allocation 2012-2014**



IUCN

IUCN's component-wise budget allocation shows that only 35% of the total budget was for implementing activities, with administrative costs accounting for 31%. The allocation for situation analysis was 16%, eight percent for communication/publication, and five percent each for capacity building and M&E (Figure 17).

IUCN's expenditure over four years (actual from 2011-13 and planned for 2014) was USD 703,678, or 75.8% of the budget. IUCN had transferred nine percent (USD 84,099) of this resources to MDO, and 8.23% (USD 57,912) to ASK- Nepal to undertake planned promotional and development works in Panchase region. But in fact, MDO's actual expenditure over the last three years (2012-14) was NRs 6,926,305 (83% of the budget transferred by IUCN), inclusive of administrative and overhead costs.[9]

The MDO's administrative and management costs for 2012, 2013 and 2014 were 19.10%, 26.19% and 16%, respectively. The rest was spent on climate change adaptation activities, which included capacity building, strategy implementation planning, ecosystem restoration, conservation farming and livestock management, sustainable water use and management, and M&E (Figure 18).[10]

UNDP

The UNDP allocates budget for various EbA activities in the PMER. In 2012/13, it budgeted USD 1,597,846 for climate

[9] At district levels details of expenditure are available in Nepali currency and is based on the exchange rate of 2015. This expenditure is only indicative and may not match the actual allocation due to exchange rate fluctuation.

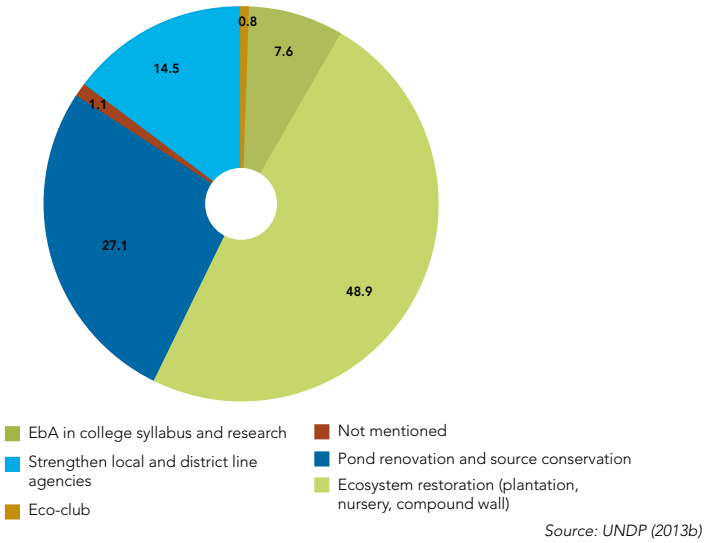
[10] The ecosystem restoration and conservation activities promoted by the MDO involved the cultivation of ***amriso*** (broom grass), ***chiraito*** (swertia), ***nagbeli*** (lycopodium) and ***kurilo*** (asparagus) on roadsides, open public and private lands; pond conservation; water source protection; biodiversity conservation; establishing orchid nurseries, gardens and organic farms, and distributing seed kits; improving organic manure; establishing biogas plants; and registering tourists coming for home-stays.

change adaptation but only USD 558,680.64, or 35% of the budget, was spent. But under the budget heading 'micro grant,' the actual expenditure was 282% higher than the planned USD 90,000 (Table 23). The spending on micro grant was 5.63 per cent of the planned budget but 45.44 per cent of the actual expenditure.

Breakdown of micro grant activities

Of the money spent under micro grant activities, 48.9% was spent on ecosystem restoration (plantations, nurseries and compound walls), 27.1% on pond renovation, 14.5% on strengthening local and district line agencies, 7.6% on college syllabus and research, and the remaining 2% on eco-clubs and other unspecified activities (Figure 19).

FIGURE 19 **Grant investment (%)**



Source: UNDP (2013b)

UNDP budget and government line agencies

The UNDP does not spend its budget at the community level. It allocates resources to government line agencies, including district soil conservation offices (DSCOs), district forest offices (DFOs) and the Western Region Forest Directorate (WRFD). These are agencies under the MoFSC. All UNDP-funded programs are implemented through CFUGs and other CSOs. The District Soil Conservation Offices (DSCOs) and DFOs are directly

Table 23 **UNDP's planned versus actual budget (USD) (2012/13)**

ACTIVITIES	PLANNED	ACTUAL (2012/13)
Travel	193,150.00	30,721.56
Contractual service-company/individual	501,094.00	81,432.50
Consultant	184,070.00	29,364.17
Training, meeting, conference	197,284.00	27,844.74
Miscellaneous	69,548.00	5,783.51
Communication, publication	117,000.00	35,305.75
Micro grant per cent (budget for EbA activities)	90,000.00 (100 per cent)	253,871.98 (282 per cent)
Equipment and Rental	132,410.00	57,807.43
Facilities and administration	113,290.00	36,549.00
Total	1,597,846.00	558,680.64
Per cent	100	35
Micro grant per cent against total budget	56.32	45.44

Source: UNDP (2013b)

Table 24 NCCSP budget sources

SOURCE	BUDGET		PER CENT
	GBP	NRs.	
DFID	7,000,000	1,097,670,000	47.94
EU	7,600,000	1,191,756,000	52.05
Total	146,00,000		100.00

Source: MoSTE (2012)

Table 25 Sectoral allocation of the NCCSP budget

SECTORAL ALLOCATION	BUDGET		PER CENT
	GBP	NRs.	
LAPA implementation (MoSTE)	8,900,000	1,395,609,000	61
Technical Assistance (UNDP)	2,800,000	439,068,000	19
Renewable Energy Promotion (AEPC)	2,000,000	313,620,000	14
Monitoring and Evaluation	300,000	47,043,000	2
Contingencies	600,000	94,086,000	4
Grand Total	14,600,000	2,289,426,000	100

Source: NCCSP financial document *Exchange Rate 1 GBP = 156.81*

involved in implementation, and the WRFD is responsible for monitoring and evaluation. In 2012/13, 2013/14 and 2014/15 the line agencies received NRs. 31,314,200, or 18% of the total amount that UNDP received for the stated period.

UNEP

The UNEP's share of the committed budget for EbA is USD 713,296 for four years. It has four program components: a) development of methodologies and tools, b) application of above tools and methodologies, c) implementation of EbA pilots, and d) formulation of national policies and building economic case. The funds distributed to the four components are: 17.78%, 48.50%, 3.74% and 10.18%, respectively. The combined budget of these four components comprises 80.2% of the committed amount. Information on how the remaining 19.8% was spent could not be obtained. Independent of the four program components, the UNEP also provides direct support for developing methodologies to assess vulnerability and for resilience planning. ISET-Nepal, a think tank in Kathmandu, received USD 102,140 from UNEP's Bangkok Regional Office to develop VIA methodology and tools for EbA, and to develop a Climate Change Adaptation Atlas of the PMER. Of that grant, 82% was spent on methodological research and the publication of research reports. The remaining 18% was spent on gathering field data for vulnerability analysis.

NCCSP

The total budget committed for NCCSP was GBP 14.6 million (NRs. 289.43 million at exchange rate of 1 GBP = NRs. 156.81), of which the EU provided 52% and the DFID 48%. The UNDP-Target for Resource Assignments from the Core (UNDP-TRAC) committed another USD 300,000, but this amount was not included in the total budget. About 61% of the budget was allocated to MoSTE for program implementation and 19% to the UNDP to provide technical assistance to strengthen the capacity of government agencies and personnel. Around 2% of the budget was allocated to monitoring and evaluation (M&E) and contingencies. Because the overall budget (Table 24 and 25) is currently under used, approximately GBP 2 million (14% of budget) was reallocated to the renewable energy sector.

Table 26 presents the MoSTE's planned budget for and actual allocation and use in 2013/14, and its budget for 2014/15. In 2013/14 the total budget use with respect to implementation of LAPAs was low, just 55.77% of allocation. The budget utilization of the 14 study districts was slightly higher (70%) but varied considerably. While Rolpa District used the most, about 94% of allocation, Kailali

Table 26 Budget details of LAPA implementation, MoSTE, (NRs.)

HEADING	CHANNEL	2013/14			2014/15
		PLANNED BUDGET	ACTUAL EXPENDITURE	PRE CENT UTILIZATION	PLANNED BUDGET
Central Level		**237,300,000**	**63,947,283.98**	**26.95**	**60,263,000**
14 Districts		493,500,000	343,641,082.80	70.00	570,000,000
Rolpa	Red Book	29,684,000	27,832,933.00	93.76	44,585,000
Kailali	Red Book	34,073,000	12,661,610.00	37.16	49,546,000
GRAND TOTAL		730,800,000	407,588,366.80	55.77	630,263,000

Source: NCCSP financial document

District used the least, just 37%. Budget use at national level was also low, only about 27%. Details of expenditure in 2014/15 were not available. In 2013/14, approximately 16% (NRs. 407,588,366) of the budget allocated for LAPA implementation was spent at the ministry level, or about 84% was spent on activities at the district level. In 2014/15, the share of the total allocation for local-level programs was increased to 90% while just 10% was allocated for central level activities. The share of budget allocated to each program district in 2013/14 is shown in Figure 20.

FIGURE 20

Actual expenditure at the central and district levels

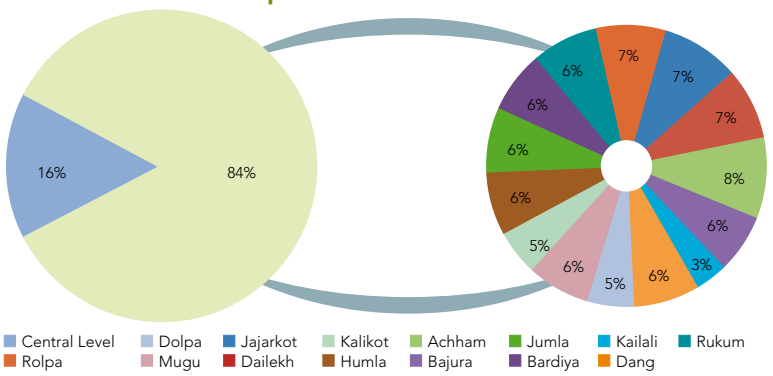


Table 27 compares the budget for activities undertaken in Kailali District in 2013/14 with actual expenditure. Of the total NRs. 34 million allocated to the district in 2013/14 only 37% was used. The money was to be spent on seven program activities: district planning, M&E and management, VDC planning, agriculture and food security, climate induced disaster, forest and bio diversity, public health, and renewable energy. The fund was spent only in four sectors

Table 27 Sectoral budget (planned and actual expenditure in Kailali district for 2013/14) (NRs.)

SECTOR	PLANNED BUDGET	ACTUAL EXPENDITURE	PER CENT UTILIZATION
District Planning, M & E and Management	9,771,000	1,491,312	15
VDC Planning, M & E and Management	700,000	0	0
Agriculture & Food Security	10,047,000	6,074,409	60
Climate Induced Disaster	10,110,000	4,855,889	48
Forest & Biodiversity	440,000	240,000	55
Public Health	860,000	0	0
Renewable Energy	2,145,000	0	0
Total	34,073,000	12,661,610	37

Source: NCCSP financial document

FIGURE 21 **Kailali district actual expenditure 2013/14**

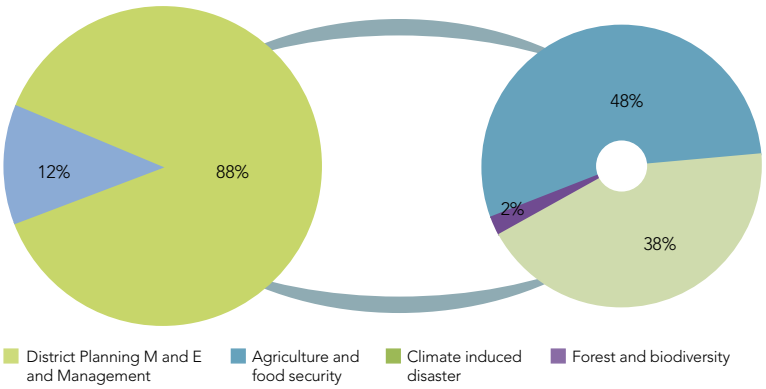


Table 28 **Sector-wise distribution of the budget for Kailali district in 2014/15 (NRs.)**

SECTOR	PLANNED BUDGET	PER CENT
VDC Planning, M & E and Management	3,611,000	8
Agriculture & Food Security	1,511,0000	33
Climate Induced Disaster	19,810,000	43
Forest & Biodiversity	1,725,000	4
Public Health	1,960,000	4
Water Resource & Energy	2,725,000	6
Capacity Building	1,490,000	3
TOTAL	46,431,000	100

Source: NCCSP financial document

Table 29 **Actual expenditure of the budget in Kailali district (2013/14)(2013/14) (NRs.)**

RECIPIENTS IN KAILALI	ACTUAL EXPENDITURE	PER CENT
DADO	1,640,000	12.95
DDC	1,496,412	11.82
DLSO	160,000	1.26
Forest users group	9,365,198	73.97
TOTAL	12,661,610	100.00
Capacity Building	1,490,000	3.00
TOTAL	46,431,000	100.00

Source: NCCSP financial document

while no spending could be done in the remaining three sectors. Those sectors where there was spending are: district planning, M&E and management (15%), agriculture and food security (60%), climate-induced disaster (48%), and forest and bio diversity (55%). Together, the components accounted for 88% of funds used; the remaining 12% remained unspent (Figure 21)

In 2014/15, 8% of the amount allocated to Kailali District was retained for VDC level planning and management of activities, and 76% was allocated for specific tasks (Table 28) in two priority areas: agriculture and food security-related activities, and the prevention of climate-induced disasters. Other activities – those related to forest and biodiversity conservation, public health, water resources and capacity building – received low priority.

Spending varied at the district level across program implementing organizations. The DDC spent the most of the allocated funds (74%). The District Agriculture Development Office (DADO) and District Livestock Office (DLSO) in Kailali spent 12.9% and 1.26%, respectively, on climate change adaptation activities (Table 29). The planned budgets for Bhajani and Narayanpur VDCs and Tikapur Municipality were NRs. 8,182,000, NRs. 5,322,000 and NRs. 6,282,000, respectively. In 2014/15, NRs. 3,115,000 (6% of budget) was allocated to district-level activities and NRs. 46,431,000 (94% of budget) was allocated to local bodies. Only about 1% of forest user groups' expenditure was on management needs.

Rolpa

Budget use under the NCCSP was significantly higher in Rolpa District (94%) compared to Kailali District (37%) in 2013/14. The budget was allocated to

Table 30 **Sectoral budget (planned and actual expenditure of Rolpa district for 2013/14) (NRs.)**

SECTOR	BUDGET			PER CENT UTILIZATION
	PLANNED	EXPENDITURE	PER CENT	
District Planning Monitoring & Evaluation	4,742,599	3,360,134	16.0	71
VDC Planning, Monitoring & Evaluation	300,000	300,000	1.0	100
Climate Induced Disaster	13,212,401	12,981,680	45 .0	98
Forest and Biodiversity	1,496,000	1,495,935	5.0	100
Agriculture and Food Security	2,612,000	2,611,712	8.8	100
Public Health and Livelihood	1,431,000	1,194,089	4.9	83
Water Resource and Energy	5,890,000	5,889,390	19.8	100
Total	29,684,000	27,832,940	100	94

Source: NCCSP financial document

three sectors: VDC planning and M&E; forest and biodiversity; and agriculture and food security. The largest proportion of Rolpa's budget went to climate-induced disasters (46.6%) whereas in Kailali it was agriculture and food security (48%). In Rolpa 19.8% of the planned allocation went to water resources and the energy sector (Table 30). Nearly 98% of the Rolpa's expenditure was on preventing climate-induced disasters. Budget use rates for district planning and M&E was 71%, and 83% for the public health and livelihood sectors.

In 2014/15, NRs. 42,419,000 was allocated to Rolpa District. This amount was deemed sufficient for the eight VDCs where the NCCSP is being implemented. In this year, climate-induced disaster prevention and agriculture, livestock and food security were prioritized with 37% and 27% of the total budget allocation, respectively. The allocation for VDC-level planning, M&E and program implementation in 2014/2015 was 11% of the planned budget (Table 31). Tewang and Mijing, the two studied VDCs, respectively received 10.1% and 14.48% of the district's total allocation.

Table 31 **Sector-wise budget distribution of Rolpa district (2014/15) (NRs.)**

SECTOR	AMOUNT	PER CENT
VDC Planning, M & E and Management	4,856,000	11
Agriculture,livestock & Food Security	11,325,000	27
Climate Induced Disaster	15,498,000	37
Forest & Biodiversity	1,500,000	4
Public Health	925,000	2
Water Resource & Energy	5,585,000	13
Capacity Building	2,730,000	6
Total	42,419,000	100

Source: NCCSP financial document

MSFP

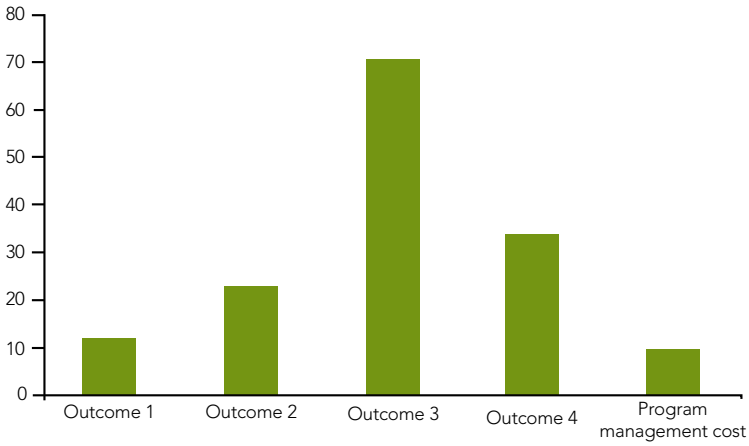
The MSFP is the largest forestry program being implemented in Nepal. The 10-year program has two phases, from 2012 to 2016 and from 2016 to 2021. The total budget of the MSFP is USD 228 million, of which 61.3% is for the first phase, and 38.7% for the second phase. Three donors (DFID, SDC and GoF) provide 67.8% of the total budget to which the GoN contributes 34.2%. DFID is responsible for 40.27%, SDC for 29.65% and the GoF for 30% of donor contributions (Table 32). Donor funds are provided in their own currencies (Pound Sterling, Swiss Franc

Table 32 **Budget contributions by different donors**

CONTRIBUTOR	AMOUNT (USDx10⁶)		TOTAL
	FIRST PHASE (2012-2016)	SECOND PHASE (2016-2021)	
Donor (Government of Finland, SDC, DFID)	61.8	88.2	150 (67.8%)
GoN	78	-	78 (34.2%)
Grand Total	139.8	88.2	228
Per cent	61.31	38.68	100

Source: MoFSC (2011)

FIGURE 22 **The MSFP's total budget allocation (USD)**



and the Euro) and converted into Nepali Rupee at prevailing exchange rate.[11] At the district level, MSFP implementation involves DFOs, NGOs and the private sector. In Rolpa District, a national NGO Rupantaran Nepal is implementing the program alongside the DFO.

The MSFP aims to produce four outputs: i) contribute to forestry policy, ii) target private sector involvement in forest management, iii) support rural communities, and iv) enhance sustainability of forest resource-related activities (Figure 22). The amount earmarked for the first output is retained at the central level, while funds for the other three outputs are allocated directly to the program districts.

Of the total budget allocated to Rupantaran Nepal for 2013-15, approximately 70% has been earmarked for use in 2013/14 and 30% in 2014/15. More than half of the fund was allocated for output-3, which focuses on livelihood improvement and building adaptive capacity of rural communities, especially poor, disadvantaged and climate-vulnerable households. Approximately 38% of the allocation is for output-4 and 9% for output-2. Output-2 allocation aims to increase private sector investment in forestry (Table 33).

Actual expenditure by Rupantaran in 2013/14 was 161.31% of the budget (Table 34). This was because NRs. 3,400,000 spent on supporting livelihood improvement activities was not included in the original budget. Almost all the allocated budget was utilized in other sectors.

VDC-level budget expenditure

In Mijing VDC, more than 80% of the budget was used for community-level activities, while the remaining 20% was allocated to meet the cost of workshops, training, planning and M&E (Table 35). According to VDC officials, actual expenditure was slightly higher than the planned, which is an indicator of improved performance.

Hariyo Ban

Hariyo Ban has separate national and district-level budgets. The program's total planned budget for the five years from 2011 to 2016 is USD 29.9 million. Component-

[11] Exchange rates of Nepal Rastra Bank (Central Bank) on 1 January, 2015: 1 USD equivalent to NRs. 100.56, 1 GBP equivalent to NRs. 156.81, and 1 Euro equivalent to NRs. 122.21.

Table 33 Output wise budget allocation, Rolpa district (NRs.)

OUTPUT	PLANNED BUDGET		TOTAL	PER CENT
	2013/14	2014/15		
Output 2: private sector (farmers, entrepreneurs and financial institute) increase investment and jobs in the forestry sector	2,564,619	2,325,485	4,890,104	9.38
Output 3: Rural communities especially poor, disadvantaged and climate vulnerable people and households- benefit from local forest management and other investments	15,256,558	11,893,474	27,150,032	52.10
Output 4: Forest and trees sustainably managed by government, communities and private sector and climate resilient	18,856,531	1,206,245	20,062,776	38.50
Total Per cent	36,677,708 70.4	15,425,204 29.6	52,102,912	100.00

Source: Rupantaran Nepal financial document

wise allocations of the budget are 21.2% for biodiversity conservation; 24.7% for sustainable landscape development; 29.5% for climate change adaptation; 3.7% for M&E activities; 11.7% for 'windows-of-opportunity'; and 9.2% for Negotiated Indirect Cost Rate Agreement (NICRA). The window of opportunity fund was provisioned for contracting NGOs, paying for consultancy services, and for research. The budget shares of the consortium partners are 23.1% (CARE-Nepal), 8.8% (FECOFUN), 6.7% (NTNC) and 61.3% (WWF) (Table 36). The project makes no direct funding to VDCs or DDCs, although these bodies have a key facilitation role in planning and implementation. Hariyo Ban supports development of CAPAs. Originally, it was envisaged that NRs. 400,000 to NRs. 500,000 would be allocated for preparing each CAPA, but the budget was later reduced to NRs. 100,000 to NRs. 150,000. Thus, total of 107 CAPAs have been prepared.

The CAPAs are the entry points for implementing programs at the community level. The budget allocated for CAPA implementation in the Hariyo Ban program is NRs. 10,846,360, of which approximately 63% comes from the program and 26.65% from government line agencies. Nearly 12% of the budget comes as community contributions, in the form of both labor and cash (Table 37). This study, however, did not look at CAPA implementation.

Table 34 Sector-wise budget allocation in 2013/14 in Rolpa district (NRs.)

SECTORS	APPROVED BUDGET	ACTUAL EXPENDITURE	PER CENT UTILIZATION
Enterprise support	1,500,000	1,598,925	106.59
New adaptation activities	2,318,000	2,274,900	98.14
Existing adaptation activities	450,000	450,500	100.11
Quick impact activities	1,365,000	1,362,600	99.80
Livelihood improvement activities		3,400,000	-100
Total	5,633,000	9,086,925	161.31

Source: Rupantaran Nepal financial document

Table 35 Mijing VDC budget for 2013/14 (NRs.)

ACTIVITIES	ACTUAL EXPENDITURE	PER CENT
Workshop/Training	37,552	9
Activities at community level	360610	82
Evaluation/planning	10000	2
M&E	31150	7
Total	439,312	100

Source: Rupantaran Nepal (2014)

Table 36 Component-wise and consortium partner-wise national-level budget (USDx10⁶)

CONSORTIUM PARTNER	BUDGET	PER CENT
CARE	6,931,291	23.1
FECOFUN	2,650,000	8.8
NTNC	2,000,000	6.7
WWF	18,365,805	61.3
Total	29,947,096	100.0
COMPONENT	**BUDGET**	**PER CENT**
Biodiversity	6,356,528	21.2
Sustainable landscape	7,382,191	24.7
Climate change adaptation	8,845,992	29.5
M&E	1,098,181	3.7
Windows of opportunity	3,515,556	11.7
NICRA	2,748,649	9.2
Total	29,947,097	100.0

Source: Hariyo Ban Program Document

Table 37 Budget allocated for CAPA implementation (NRs.)

CONTRIBUTION	ALLOCATED AMOUNT	PER CENT
Hariyo Ban contribution	6,709,748	63.02
Government line agencies contribution	2,890,775	26.65
Community contribution	1,245,837	11.48
Total	10,846,360	100.00

Source: WWF Nepal (2014a)

Table 38 CARE Nepal budget for three thematic areas for 2012-2015 (NRs.)

TOTAL BUDGET	6, 601,385.00
Biodiversity conservation	17 per cent
Sustainable landscape management	22 per cent
Climate change adaptation	61 per cent
Total	100 per cent

Source: CARE Nepal financial document

CARE Nepal

CARE Nepal works in three thematic areas within the program. These are climate adaptation training and capacity building; adaptation planning and implementation support; livelihood improvement and forest management. Of its budget share, 61% is allocated to activities related to climate change adaptation, 22% towards sustainable landscape management, and 17% for biodiversity conservation (Table 38).

District budgets

In Kaski District, a total of NRs. 21,968,300 was allocated for the program in 2013-14. Of this amount, nearly 40% of this amount was allocated for climate change adaptation activities, 36.8% for biodiversity conservation and the remaining 23.4% for sustainable landscape management. It is not known if administrative costs were provisioned under a separate heading (Table 39).

According to the district profile, in 2014/15 FECOFUN and CARE Nepal received NRs 1,500,000 and NRs 2,236,480, respectively under the Hariyo Ban program (Table 40). The details of the allocations are not known. The biannual performance report states that the municipality and VDCs of Dhangadhi (Kailali District) had promised to allocate some budget for CAPA implementation with Narayanpur VDC committing NRs. 100,000 for this task, however actual expenditure made to this end is not known.

CFGORRP

The total budget of the CFGORRP for 2014-16 is USD 7,249,430. Of this amount, the contribution of LDCF was 86.9% and the remainder 13.1% came from the UNDP. On the expenditure side, nearly 42% of the budgeted amount was allocated for GLOF risk reduction activities in the Solukhumbu District and nearly 31% for flood risk management in the districts of Mahottari, Siraha, Saptari and Udaypur. The remaining 27% was allocated to meet administrative and management costs (Table 41).

Under the budget headings of the CFGORRP for 2014-16, 36.7% and 13.17% have been allocated to meet the contractual needs of service providers to support local adaptation activities, while the other half has been allocated for activities that only

indirectly support adaptation efforts (Table 42).

8.6 Similarities and differences across the programs

There are similarities as well as differences in the five programs with regard to funding provisions, fund-flow processes and implementation modalities. The similarities and differences are elaborated below.

Similarities

All five programs engaged multiple institutions in the fund-flow process at the level of decision-making, program implementation, and in coordination. The similarities noted across the programs are as follows:

i. Getting funds transferred required multiple steps: decisions had to be made by the donor, by the ministry, by local agencies designing the program and those implementing activities. The process for releasing funds was time-consuming because government agencies are required to follow the Public Procurement Act.
ii. GoN agencies at the national, regional and local levels were found directly or indirectly involved in all the programs, either as program facilitator or as implementer.
iii. Some activities identified and grouped under adaptation activities in the programs were not exclusively related to climate change adaptation.
iv. There were ambiguities in budget allocation, and bureaucratic procedures in budget releases were lengthy and affected overall budget use.
v. Because the programs had multiple implementing partners, there were issues related to effective coordination and communication across them. There were also coordination difficulties in field and cluster level offices with local communities and also with the agencies at the higher levels.
vi. DFOs were involved in most programs, and
vii. All programs were received as grants and there was no loan component.

Differences

The noted differences across the programs are as follows:

i. The programs involved different institutional mechanisms in implementation. For example, the NCCSP implemented programs through user groups while EbA

Table 39 Kaski district budget WWF, CARE Nepal, FECOFUN, NTNC for 2013-2014 (NRs.)

SECTOR	AMOUNT	PER CENT
Biodiversity conservation	8,094,990	36.8
Sustainable landscape management	5,136,310	23.4
Climate change adaptation	8,737,000	39.8
Total allocated program budget	21,968,300	100 .00
Administrative cost	-	-

Source: DDC, Kaski (2014a)

Table 40 District Budget of Kailali district (NRs.)

ORGANIZATION	AMOUNT
FECOFUN	1,500,000
CARE Nepal	2,236,480
('Program" includes all 3 thematic areas biodiversity conservation, sustainable landscape management and climate change adaptation)	

Source: DDC, Kailali (2014b)

Table 41 Donor commitments (USD)

AMOUNT	COMPONENT	PER CENT	DONOR	PER CENT
7,249,430	GLOF risk reduction (out put 1)	42	LDCF	86.9
	Flood risk management (output 2)	31	UNDP	13.1
	Project management	27		

Source: UNDP (2013a)

Table 42 **Program budget breakdown (USD)**

HEADING (PLANNED)	OUTPUT 1 (GLOF)	OUTPUT 2 (FLOOD)	PROJECT MANAGEMENT	TOTAL	PER CENT
Year 1 budget (2013)	31,666	15,923	314,106	361,695	5.01
Year 2, 3 and 4 budget breakdown (2014-16)					
Grants	45,640	205,041		250,681	3.47
Travel	104,402	229,613	4,202	338,217	4.69
Equipment & furniture	121,800	14,034	52,299	188,133	2.61
Audio Visual & Print Prod Costs	11,005	2,400	98,961	112,366	1.56
Training Workshops & Conference	156,235	106,732	41,020	303,987	4.21
Local Consultants	112,108	164,352		276,460	3.83
Contractual Services - Companies	1,833,009	777,245	37,701	2,647,955	36.70
Professional Services		6,000	9,000	15,000	0.21
Supplies	605,178	702,101	58,551	1,365,830	18.93
Rental & maintenance of other equipment	2,500		120,002	122,502	1.70
Contractual Services – Individual			950,210	950,210	13.17
Hospitality/Catering			15,000	15,000	0.21
Miscellaneous Expenses			267,418	267,418	3.71
Total	3,023,543	2,223,441	1,968,470	7,215,454	
Per cent	42	31	27	100	100.00

Source: DHM (2014)

used local NGOs. The coordinating body at the community level also differed: for example the NCCSP work with village and district energy and environment and climate change coordination committees whereas the CFGORRP works with CDMCs and VDMCs. In contrast, Hariyo Ban had set up field level offices and EbA had set up field level coordination committees for program implementation.

ii. EbA, included administrative and overhead costs in their expenditure, whereas the NCCSP, did not specify this expenditure separately.

iii. Hariyo Ban focused on landscape level activities while others, including, the NCCSP and the MSFP, covered more diverse themes and sectors, and

iv. EbA and Hariyo Ban had a single donor while the MSFP, the NCCS and the CFGORRP had multiple donors.

v) Though funded under grants, Hariyo Ban provided loan to establish revolving fund at the community level to help support local adaptation activities.

09 CONCLUSION

The following conclusions are drawn from the study:

Shortcomings in program implementation

i. The low institutional capacity of the DDCs and VDCs, the budget holders and the coordinators and facilitators involved in the implementation were reasons for low budget use across the programs. Inadequate human resources, low skill and poor physical and logistic support, especially in government line agencies, created additional challenges in implementation. Many user groups had not received basic training in the administration and operation of the project. The lack of communication among user groups, VDC secretaries and line agency personnel further complicated implementation.

ii. There was no mechanism for robust financial management and fund tracking across the programs and therefore it was difficult to take stock of progress in implementation verses expenditure, and

iii. The formal functions that the local government bodies – DDCs, VDCs and municipalities – are required to perform are many given their low institutional capacity and resources. At the same time officials in the GoN's district-level line agencies and local bodies are overburdened by their involvement in numerous development projects and in regular administrative responsibilities. This left them with little time to give to climate change adaptation projects. Often, infrastructure development projects were prioritized over those involving environmental management, biodiversity conservation and climate change adaptation. This was due to small size of budget allocated and compulsion of meeting immediate needs of the community than implementation of programs related to climate change and environmental management.

iv. The frequent transfer of the LDOs, responsible for financial decision-making in the DDCs, and heads of government line agencies was one reason for delays in both fund release and use.

v. Poor vertical and horizontal coordination within agencies also hampered the timely release of funds, their use and regular reporting.

vi. There is often no follow-up support beyond the project period, so projects often end up as one-time initiative. This limits the opportunity for institutionalizing learning from one project and using it in developing and implementing subsequent programs.

vii. Community members believed that local procurement and procedures are neither transparent nor fair.

viiii. Tools – such as public audit, display boards, community hearing – were used to ensure social accountability in implementation. But they were used as tokens to reach the next step for funds disbursement without genuine follow-up or due diligence in addressing the concerns that are raised.

ix. Planning processes of most projects were incompatible with actual fund-flow mechanisms. Delays due to inadequate project planning, budget allocation, approval, implementation, and delayed budget releases leave little time for completing activities.

x. The tenure of the last elected local representatives ended in 2002 after which the LSGA 1999 became ineffective. The absence of elected representatives undermined the objectives of the LSGA and has continued to hinder implementation of local policy issues, including those relating to climate change adaptation.

Compliance with Climate Change Policy

The five climate change adaptation projects examined have not complied with the requirement of the National Climate Change Policy, which states that 80% of resources should go directly to program implementation at the community level. In fact, only less than half of the allocated funds in these projects went into local level adaptation programs. Even so, local people seemed satisfied that at least some activities were being undertaken in the community. The allocated funds were used to undertake a variety of livelihood promotion and resource conservation activities, ranging from developing local-level infrastructure and services to enhancing and diversifying crop and livestock production to create income opportunities (Table 43). But it was not possible to evaluate the relevance or value of these activities in reducing climate change vulnerability and/or building adaptive capacity because no ward-level data or information on activities or climate change vulnerability existed. Nevertheless, the on-going activities provided a picture of the current efforts being undertaken at the local level. The study made attempts to rank wards of three VDCs and one municipality for climate change vulnerabilities (see: Box-1), but it was not possible to relate if the activities were targeted to the ward with high vulnerability ranking. The five projects used different methods for vulnerability assessment and in the limited time frame of the study in was not possible to establish as to how the implementation of activities were prioritized in relation to vulnerability.

Climate Change Finance

Nepal has been receiving climate change funds from a number of sources, including bilateral and multilateral agencies, dedicated climate change funds under UNFCCC, the LDCF, the GCCA and the CIF. Much of this money started flowing into the country after 2010, though some funding for climate change mitigation and awareness building began in late 1990s. Between 2000 and 2010, Nepal received nearly USD 650 million to support climate change mitigation, adaptation, awareness and capacity-building activities at the national and local levels, as donor support. Allocations for climate change mitigation and adaptation in the national budget have been limited, for the most part, to matching funds, required for acquiring donor support.

The size of climate finance has increased over time. It is likely that both internal and external support for adaptation activities will further increase as the country's adaptation challenges become more complex. Additional finance will

Table 43 **Activities carried out at the local level**

PROGRAMS	DISTRICTS	VDCs/ MUNICIPALITY	ACTIVITIES
EbA	Kaski	Bhadaure Tamagi	Pond construction, broom grass farming, forest ecosystem management
		Pumdi Bhumdi	Water resources conservation, training on vegetable farming and home-stay, organic farming, Bee keeping, *Bhakaro Sudhar**, and broom grass farming, landslide/gully control
		Dhikur Pokhari	Mushroom cultivation, invasive plant species control, promotion of NTFPs
Hariyo Ban	Kaski	Pumdi Bhumdi	Improved cooking stove, capacity building workshops, water tank renovation, workshop on off season vegetable farming, gabion wall construction, tap construction
		Bhadaure	Broom grass plantation, tea plantation
		Dhikur Pokhari	Goat and buffalo distribution, improved cooking stove
	Kailali	Narayanpur	Goats and pig rearing, banana plantation, promotion of improved cooking stove, vegetable farming, drought tolerant plants, seedling distribution and training, river bank farming
		Tikapur	Drought resistant plant, seedling distribution and training, river bank farming, goat distribution, livestock health management training.
NCCSP	Rolpa	Tewang	Gabion wall construction, construction of drinking water scheme , construction of Irrigation pond, tree plantation, promotion of drip irrigation, Improved cooking stove, veterinary training , agricultural training, cold store for oranges , field visit for the local people where they visited Pokhara and observed vegetable production, orange production and livestock farming.
		Mijing	Water system renovation, awareness program on climate change focusing marginalized household in every ward, Awareness programs to school children, Livestock health training, Primary health program in every ward, Information centre that focuses on climate change established, Training on new variety of maize and vegetables, Distribution of improved seed variety, Mushroom farming, Forest management training, Distribution of tools for fighting forest fire, Distribution of improved cooking stove
	Kailali	Narayanpur	Flood plain farming, seeds distribution, bio embankments
		Bhajani	Banana plantation, flood plain farming, tube wells and toilets with raised platforms
		Tikapur Municipality	Canal construction, banana plantation, flood plain farming, tree plantation, grass plantation
MSFP	Rolpa	Mijing	Construction of irrigation canal, scholarship to the students, gabion wall construction, Irrigation pond construction, *Chiuri*** marketing

* Cowshed improvement
** Nepali butter tree *(Diploknema butyracea)*

Source: ISET-Nepal field survey (2014)

be required to deal with emerging risks of climate change and its negative impact on key development sectors, especially agriculture, water supply and sanitation and hydropower development. Despite increased funding, the institutional capacity of the country at the national, sub-national and local levels will be key determinant for effective use of available funds.

The introduction of the CCBC in the budget recognizes the share of funds dedicated to climate change adaptation. This effort is a significant development. The national budgeting system now includes allocations for climate change mitigation, adaptation and capacity building in key development sectors. It is interesting to note that 33 of the 83 budget lines in the Red Book are related to climate change adaptation (NPC, 2011). Nonetheless, pinpointing specific activities as climate change adaptation is difficult and this makes tracking climate change finance more challenging.

A large portion of GoN climate budget comes from external funding, which highlights Nepal's dependence on donor funding for climate change adaptation programs. Yet in the past five years there has also been an increase in internal fund allocations for climate change mitigation and adaptation. In FY 2014-15, the GoN allocated 10.73% of the budget to this sector compared to 10.43% in FY 2013/14 and only 6.74% in FY 2012/13. But bulk of this funding is used by central level agencies. Between 2009 and 2012, for example, 60% of government funding was used directly by central-level ministries and departments and only 40% was spent by local government agencies.

The GoN funding committed to climate change adaptation follows the budgetary system and fund-release process. Budget allocated to different activities is in accordance with Red Book of the MoF. The funds specified in the Red Book are subjected to GoN's financial regulations and auditing. Only a part of the budget channeled through the government system to donor-funded projects are mentioned in the Red Book. Some donors allocate part of their funding as non-project budget (that does not appear in the Red Book) to procure consulting services and provide support to civil society organizations and NGOs. They justify this allocation on the ground of inevitable delays in channeling funds through GoN's system.

Donor funds for climate change adaptation and related capacity-building activities are also channeled through INGOs whose headquarters are outside Nepal. These INGOs develop their own institutional mechanisms for implementation and work with sectoral line agencies, local government and user groups.

Difficulties often arise in adding up budgetary allocations and expenditure going directly to climate change adaptation. In many programs, activities relating to administration, communication, publication and M&E are also counted as climate change adaptation expenditure. Separating climate change adaptation from regular development work is equally difficult. In some programs climate adaptation funding is used to address vulnerability related only indirectly to climate change. For example, in Kailali District the NCCSP funded the construction of toilets suitable for flood-prone areas. By addressing embedded sources of vulnerability, e.g. lack of sanitation resulting in unhygienic living, the program has helped households adapt to flooding. But it is not possible to relate with any degree of certainty that climate change was the cause of the

recurrent floods in the district. Therefore, framing the construction of the toilets as a climate change adaptation activity invites ambiguity.

Fund-Flow Processes

Funding for climate change adaptation involves donors, budget-holders, program-holders, implementers and service providers and all have a role to play in different stages of implementation. Donors decide funding size and fix budgets and/or program holders. Once donors release funds, they are made available to the budget holders, who are either central government ministries or departments or INGOs. The role of program holders is program planning and coordination or facilitating implementation. They do not directly implement programs. The program implementers, in the five projects studied, were the district-level offices of sectoral agencies, local governments, user groups and local NGOs. Service providers are individuals and/or organized groups that provide intellectual, material, technological or construction services and facilitate implementation. They are generally consultants, suppliers or contractors, depending on the type of services they provide.

Because many actors are involved in the program implementation chain, both the fund flow process and decision-making at each stage are tedious and time consuming. A flaw in the budget release or flow at any stage can jeopardize subsequent stages, creating delays in implementation.

It was difficult to relate allocated climate change adaptation funds across the five programs with the local needs and priorities of the people. Though the programs also aimed to extend management and budgetary support to vulnerable and disadvantaged groups, it was not possible to assess explicitly if they did focus as stated, and on associated vulnerabilities. From an ecosystem perspective, working on vulnerability assessment and local adaptation would be ideally done at sub-watershed scale. This approach presents major practical challenges: most data is available at administrative level of the ward and not sub-watershed, the budgets are similarly allocated and so are programs implemented. Thus ward-level vulnerability assessment may be a more practical and useful approach than sub-watershed-level analysis. The ward level assessment can be scaled up to sub-watershed scale though it may require additional efforts in transposing data from wards to VDCs and then to sub-watershed.

The budget, mechanisms governing fund flows, and methods for implementation are often determined at the central level. As a result, they might not correspond to local situations. Experts on climate change, development professionals, donor representatives and government officials usually plan and design programs and activities relating to adaptation, ignoring or, at best, only partially including, local institutions and communities. This approach gives central-level agencies (program holders and budget holders) a more control in decision-making and a greater share of the budget than those involved in program implementation and affected by the outcome.

The five programs reveal that the structure of program planning and implementation and the budget-flow process do not create opportunities for reflective learning and iterative planning, nor do they provide opportunities for locals to innovate. The absence of reflective learning and iteration in program planning and

implementation limits value addition in climate change adaptation efforts. Also, none of the five programs complied with the GoN's climate change policy that 80% of program finance should reach the local level and be used to address the climate change adaptation needs of vulnerable groups. The failure to comply with this policy was partly due to structural limitations, low management capacity, political factors, the programs' lack of sensitivity to cater to local adaptation needs and priorities, and conceptual limitations that did not allow climate adaptation tasks to identified.

The Value of Tracking Funds

There is an immediate need to track the climate finance in order to ensure the funds are spent effectively in addressing the adaptation needs of individuals, groups and communities vulnerable to climate change impacts. This study sought to do so, but its purview was limited to fund-flow processes and therefore no attempt was made to evaluate the efficiency and effectiveness of the processes. For this reason, this study has limited value in analyzing fund use by the programs studied. Nevertheless, it has demonstrated that tracking climate change adaptation funds should be integrated with the M&E system. Generally, M&Es though seen as integral to program implementation tend to be little more than summations as they look into the program components and their output and/or impacts, but not into budget flow or its efficacy. Such an examination is often left to financial auditing, which has a limited remit because it focuses on income and expenditure accounts, and doesn't assess how well investments perform in terms of reaching people and addressing their needs.

Lack of proper documentation at all levels was noted as a key problem in fund tracking. Program and project personnel at all levels (budget holders, program holders and implementers) need to understand and be made aware of the importance of documenting decision-making and lessons learnt as a part of their regular duties. Documentation is instrumental in producing information to keep track of program trajectories, including those relating to funding processes.

Administration and Management Systems

Both donors and the GoN have their own fund-flow processes and financial management systems. Each of these processes and systems has its own strength and weakness. But, instead of recognizing the limitations in their systems, the two actors try positioning their own system as superior. Donors and development agencies claim their financial management systems have fewer bureaucratic hitches and are, therefore, more responsive to development needs. The GoN claims its way of doing things is more robust in ensuring fiscal discipline. Some donors and INGOs put aside some of their finance as non-budgeted fund because of this conflicting position. There is a strong need to reconcile the financial management systems so that it can be easier for both the government and donors to manage the finances effectively.

Problems with regard to implementation at local level existed across the five programs, limiting opportunities of reaching out to vulnerable groups and using the available funds. Implementation is affected because personnel at the sectoral line agencies and local governments are often over-burdened with overseeing development programs

in addition to their regular administrative responsibilities. For example, LDOs have many responsibilities related to district-level service delivery and infrastructure development and they hardly have time for climate change adaptation programs. Furthermore, local government agencies do not have sufficient institutional capacity to respond effectively to program implementation. As a result, allocated funds are under-utilized, plans remain incomplete, and objectives are unmet. In Kailali District, for example, 30-40% of resources in the program were allocated to M&E but the indicators collected under M&E were not used systematically to evaluate the program.

Although most programs aim for local communities to participate actively in planning and designing, participation is often a passing reference rather than fully practiced, and this too gradually diminishes over the program period. Too often community members only become aware of a program when it arrives at their doorstep, as they have been excluded from an active role in program planning. In Tewang VDC in Rolpa, for example, locals complained that they had not been informed when the VIA was being conducted and when adaptation plans were formulated. In Pumdi Bhumdi, the VDC secretary was invited to attend the EbA planning meeting instead of the representatives from users' group. There are more examples that show how locals are excluded from the planning process. Regular consultation with local communities happens so rarely that there is little incentive for them to become engaged in program implementation.

The DDCs and VDCs are autonomous when it comes to administration and management, but major technical and budgetary decisions rest with the GoN's central ministries. Though the personnel at the district-level line agencies function under local bodies, they do not focus on local needs, because they are expected to follow the designated procedures of, and report progress in implementation to, ministries and departments.

Local government bodies are allowed to design their own administrative and organizational structures to suit their needs and workloads, but most DDCs and municipalities work with the uniform structure prescribed by the MoFALD. VDCs operate with only a few staffs, and they generally have low-level technical qualifications. There are few trained engineers and graduates on natural resources management or climate change at the local level, and those who are there lack adequate resources, understanding and logistical support. DDC and VDC staffs are also not particularly motivated in pursuing the social and environmental management tasks with vigor, because these engagements do not collate in any way to their career growth. Combined, these factors create significant barriers at the local level, seriously limiting the performance of local bodies in implementing programs. These limitations can be especially debilitating for climate change adaptation programs, which demand relatively high levels of innovation and ingenuity in design and implementation.

10 RECOMMENDATIONS

The study makes the following recommendations

Indicators for tracking finance

Fund tracking is not simply about tracking the size of a fund and the flow across an institutional hierarchy, it must also evaluate equity, effectiveness and the responsiveness to local needs and priorities. The study has suggested use of the indicators listed in Table 44 in order to add value to future fund tracking.

Building on the Existing System of Financial Management

Climate change adaptation is a crosscutting process that spans almost all aspects of development. Keeping track of climate financing for adaptation is key to effective program management. To facilitate effective flow of finances, the GoN must reform the existing system and mechanisms rather than create a new system. It must critically review the prevailing funding modalities as documented in this study and try to reconcile processes, first among different donors, and then between donors and the GoN.

Clear distinction between administrative budget and program budget

To simplify the tracking of funds allocated for climate change adaptation, it is desirable to have separate budget heading specifying administrative and program costs. Since it is easier to access information on planned budget than on actual expenditure, the GoN should formulate policies that require all donors, budget and program holders, and implementers to make public their finance and expenditures each fiscal year.

Capacity-building on budget use

The actual expenditure on all five programs was lower than the allocation. The MoSTE and the MoFALD must examine the underlying managerial problems and identify barriers and gaps. This examination will help in improving institutional performance of local bodies and line agencies and ensure that the allocated budgets are used as planned. It will also help if efforts are made to build local capacity in diagnosing problems, identifying solutions and preparing appropriate strategies to overcome barriers to the budgetary processes.

Table 44 **Suggested approach for dealing with climate change knowledge**

PROCESS-BASED	INSTITUTIONAL
Increasing dialogue between climate scientists and the adaptation community. Greater focus on shared learning in ongoing programs. The inclusion of climate scientists as stakeholders that are engaged early in programs, leading to greater capacity building of stakeholders. Groups investigating better ways of communicating climate information.	Growing recognition for the need for individuals and organizations that can serve as information brokers – individuals who understand the science behind climate information production and are engaged in adaptation research – that can bridge disciplines, promote dialogue and serve as an information translator. Review academic training and courses that offer multidisciplinary degree programs that require training in physical and social science research in the context of climate adaptation. Groups emerging among the climate science community calling for better communication efforts, while simultaneously attempting to educate themselves and engage in social science research methods, adaptation and disaster risk reduction.
SCIENCE BASED INITIATIVES	**TECHNOLOGICAL INITIATIVES**
Make climate projection data more user friendly and respond to near-term policy perspectives, while continuing to investigate the potential longer-term climate change patterns and impacts. Dialogue on threshold analysis conducted by climate scientists to support the examination of critical thresholds pertinent to health care, agriculture extensions and energy use. Climate modeling initiatives to make relevant models available to scientists along with assistance to run the models to produce higher resolution projections for all of Nepal.	Repository of historical and climate projection data that are available online for free or minimal charge. Increase in the number of climate science articles as open source, allowing for free access. Joint initiatives among scientists, artists and adaptation experts to depict regional and local-scale climate projections or scenarios in multiple formats –GIS layers, maps, audio documentaries and videos. Such initiatives include the new Google Earth climate layers to better present uncertainty and projection ranges.

Source: Adapted from ISET (2010)

Social Auditing Mechanisms

The stakeholders of the programs at all locations in the study were aware of different types of social auditing processes, including citizen charters, hoarding boards and public hearings. The MoSTE and the MoFALD must make these processes, especially public hearings, compulsory at all locations. They should also investigate why social auditing processes are regular in some programs and locations and not in others.

VIA process

The diversity of programs studied enabled a broad examination of different elements involved in climate change vulnerability assessment and resilience planning at the national, sub-national and local levels. The GoN and other agencies supporting climate change programs must conduct in-depth analyses of the approaches used in assessing vulnerability and risks, as well as the strategies designed for building resilience. The approach that this study took—categorizing wards of VDC and municipality based on their vulnerability ranking—can be replicated in other programs for allocating funds to the most vulnerable wards and groups for meeting the adaptation needs.

Table 45 **Suggested indicators for tracking climate finance**

PRINCIPLES	EXPLANATION	PROPOSED INDICATORS
Transparency	Stakeholders are able to gather information about the use of funding and the activities being carried out.	Budget documents are available at national, district and community level Available information is complete Information is stable and interpreted Information availability is timely Performance assessed and regular audit done Fiscal decentralization practiced Project information including financial details are well maintained Project authorities are willing to disseminate the information to the public Project authorities disseminate CCA budget
Ownership	Stakeholders at the national and sub national levels decide what actions need to be taken.	Local stakeholders are informed and participate while preparing climate change adaptation budget in their community Women, poor and marginalized people are included and get priority in the program Fiscal decentralization of CCA are practiced (Poverty alleviation through livelihood improvement, food security, drought proofing, flood control, irrigation, agriculture and allied services, DRR, water resources, forest /biodiversity)
Responsiveness	Resources are directed in response to the needs and interests of the most vulnerable people and communities.	Gradual reduction of administrative cost of climate change project and increment of climate change adaptation People are called/informed in the project process, and are engaged in share learning dialogue (SLD) Response to the weaknesses of the programs and seek for solution People take initiative to improve the system(program) rather than waiting the management Deliver the most needed program first Inform the progress status to the local even delayed
Equity	Actions must consider social inequalities (gender, ethnicity, caste, etc) and promote equality.	The extent of intervention that target to the most vulnerable population The intervention that do not result further marginalization of other certain groups Incorporation of safeguards and screening process into evaluation Consideration of responsibility for anthropogenic climate change

Adaptation options stemming from local knowledge and scientific evidence

Both the knowledge of indigenous peoples and those based on scientific evidences have distinct value. They must complement each other in identifying climate change adaptation solutions that are responsive to local needs. Many of the adaptation options promoted across the five programs were planned based solely on scientific evidence though there was some local participation. Many autonomous adaptation efforts by local people, founded on indigenous knowledge and practices, are often ignored while identifying the interventions, let alone integration in planed programs. The synthesis of the two knowledge systems requires locating the use of knowledge at various stages of local adaptation and the reason why they are adopted (Table 45).

Specific Recommendations to the GoN

a. The GoN and the MoSTE must support a systematic review of national, local and community adaptation plans of action so that climate change adaptation programs accommodate the variations that occur at the local level. The NAPA's map, which ranks the vulnerability of districts, is a useful tool for supporting decisions, but it needs to be updated. The GoN must also ensure that the MoSTE and the MoFALD coordinate efforts to develop and distribute the updated maps at the VDC level. Having vulnerability maps will help local governments make decisions with regards to adaptation and design of their LAPAs.

b. Using appropriate indices, the GoN must review its monitoring mechanism and assess the performance of its agencies. These indices should monitor the trends in budget disbursement and use and thereby track the progress. The outputs can help in designing better programs, and in delivering better outputs.

c. The GoN must reform its administrative units within each ministry by creating teams with the needed expertise to oversee and coordinate climate change-related activities.

d. The GoN should review its climate policy requiring 80% of climate funding to reach local communities in light of the fact that none of the programs studied complied with this provision. Given low institutional capacity at the local level, it would be realistic to lower the compliance threshold. The threshold percentage can be increased again once the local institutional capacity and budget use by local communities improves.

e. The GoN should develop explicit criteria to differentiate climate change adaptation interventions from environment and natural resources conservation, and mainstream them in programs. Considering the difficulty in differentiating climate change adaptation from regular development programs, such criteria could serve as starting points for dialogue. Regular development programs should be designed in a manner that they meet both the adaptation and development goals.

f. The financial resources used by INGOs are not reflected in the government's budgetary system, either fully or partially. Bringing them within the government's tracking system will increase transparency and enable others to access information relating to their budgets and expenditures.

g. Nepal depends heavily on donor support to meet its climate change adaptation needs, thus there is a risk of funding being discontinued if donors decide to withdraw support. The GoN should increase its share of funding in order to ensure the continuity and sustainability of climate change adaptation programs.

h. A robust methodology for tracking climate finance needs to be developed even if it might not be applicable to all programs. A blanket approach will clearly not work, and the GoN should pilot several approaches before deciding on one. The tracking mechanism should be sector- and location-specific and should include the following: a list of indicators, details on funding channels, flow diagrams, auditing mechanisms, a time frame, a list of responsible agencies, and

compliance requirements to the Right to Information Act. The GoN should form a national-level advisory group to examine how to track funds and develop institutional arrangements for the purpose.

i. Climate change adaptation activities need to be creatively integrated within the development process determined by the GoN's economic strategy. Policy and decision makers will need to work closely with researchers and local communities to establish approaches for identifying and reducing new and existing sources of vulnerability.

Specific Recommendations to Donors

a. Donors and implementers need to introduce appropriate methods for sharing information on programs and finances with community members in order to increase local understanding of focus, activities and institutional arrangements in the program and its implementation. Access to this information will enable local communities to participate in and contribute to the implementation.

b. Stakeholders and donors need to pay attention to the quality of work undertaken at the local level. Poor-quality work not only lowers the value of investment but also raises concerns of their sustainability.

c. In order to ensure that funding flows smoothly from the national to local level, the mechanisms developed by donors should be compatible with the GoN's budget process and reporting system. For fund flow tracking systems to be effective, it is important that systems followed by donors be aligned with that of the government.

Specific recommendations to local governments

VDCs can play a key role in ensuring that the allocated funds reach the most vulnerable sections of a community. Their institutional capacity to do so needs to be developed by employing more qualified personnel, and streamlining the organizational structure and functions to enable them to undertake more innovative programs that climate change adaptation requires. The systems of record keeping and database management at the VDC level also need to be systematized.

Specific recommendations to academics and researchers

Developing mechanisms to track climate change finance needs to be an important focus area for both government and donor agencies. Developing an appropriate methodology to track funds to produce value in the planning, design and implementation of climate change adaptation programs is a pressing need. Academic institutions, research groups and think tanks can contribute in developing and refining the methodological approaches to track fund allocation and use.

11 FINAL OBSERVATIONS

The climate change adaptation programs currently being implemented in Nepal have created new dynamics at both the national and local levels. Some of these dynamics have forced innovation in government procedures, such as introduction of CCBC but similar positive local responses, such as micro policy, program planning and implementation, are yet to emerge. This is partly because local government and local communities have been negatively impacted by the on-going political transition in the country, which has rendered governance mechanisms unstable thereby limiting effective use of available resources for climate change adaptation. Some methods and tools have been developed and are being tested, but it is too early to say if they will meet their stated goals of reducing vulnerability and building resilience to climate change impacts. We must continue to examine these initiatives for the lessons they provide.

As part of the ongoing work, financial details, generally, and the details of climate change programs, must be made available to all parties systematically. The level of governance in which learning should take place is something to think about. Will it occur among donors, within the government, among think tanks, private sector entities or local communities? The answer is not clear. Yet it should come from dialogues across sectors, disciplines and perspectives.

Funds allocated to combat the effects of climate change must not distract from existing development work. Development and adaptation process can and must happen alongside. To this end, effective use of funds irrespective of source – donors or government budget – should be the primary focus of the GoN. Tracking of flow of fund and its use are integral to any M&E system. They are foundational in ensuring that fund use is total, effective and, as envisaged, supports the vulnerable. Given the uncertainty associated with climate change, space must be created for reflexive learning and iteration in program design particularly for assessing vulnerability, selecting options and revisiting because conditions change due to warming climate and other stressors.

Mainstreaming the idea of reflexive learning and iteration faces major reconciliation challenges between the principles of governance emerging from the resilience theory and realities of bureaucratic rationality and notions of legal certainty (Ebbesson, 2010) within which a government department functions. How resilience-enhancing approaches match the principles that underpin public administration and concepts of good governance?

Resilience framing and dealing with complex theories suggests plural solutions, flexible governance, learning oriented and adaptive institutions (Humle, 2008; Verweij et al., 2006) as key elements necessary to address climate change problem. This framing stands in direct contrast to the core foundations of public administration theory and practice incorporating efficiency, transparency and accountability as key elements of good governance. How do climate change governance, adaptation planning become internalized within the regular framing of good governance, and the ways in which state bureaucracies operate? This study has cursorily sketched the adaptation action terrain in Nepal useful for beginning to examine these tensions.

Irrespective of how the climate change discourse progress, it is fair to assume that the overall responsibility for tracking climate finance would rest with the GoN and its agencies. Therefore the financial management procedures of donors must match those outlined by the government. This, however, is the biggest challenge. The GoN must reform and improve its financial management mechanism to ensure that it has a clear structure designed to help meet adaptation goals. Reducing the risks posed by climate change will require creative thinking and innovative approaches in conceptualizing programs and their execution that in turn requires robust monitoring and evaluation processes. Without that, climate change-induced vulnerabilities will continue to undermine Nepal's development gains.

BIBLIOGRAPHY

Bird, N. (2011).*The future of climate finance in Nepal*. Kathmandu: ODI.

Carter, T. R., Parry, M. L., Harasawa, H., and Nishioka, S. (1994). *IPCC technical guidelines for assessing climate change impacts and adaptations.* London and Japan: University College and Centre for Global Environmental Research.

CEN (2014). *AFAI News Letter,* 2071 Magh, Clean Energy Nepal, Kathmandu.

DDC (2013). *District development plan*.Kailali, Kaski, Rolpa: District Development Committee Office.

DDC (2014a). *District development plan*.Kailali, Kaski, Rolpa: District Development Committee Office.

DDC (2014b). *District profile*. Kailali: District Development Committee Office.

Devkota, R. P. (2014). Climate change: Trends and people's perception in Nepal. *Journal of Environmental Protection,* 5, 255-265.

DHM (2014).*Finance documents*. Kathmandu: Department of Hydrology and Meteorology, Government of Nepal.

Dixit, A., Karki, M. and Shukla, A. (2015).*Vulnerability impact assessment and adaptation planning in Panchase mountain ecological region Nepal.* Kathmandu: Institute for Social and Environmental Transition-Nepal (ISET-Nepal).

Domroes, M. (1978). *A Rainfall atlas of the Indo-Pakistan subcontinent based on rainy days*. Wiesbaden, Germany, Wiesbaden: SchweinfurthGlohnDomroes, Studies in Climatology of South Asia.

Ebbesson, J. (2010). The Rule of Law in Governance of Complex Socio-ecological Changes. Global Environmental Change, 20 (3), 414-42

FAO (2014). *Managing climate risk and adapting to climate change in the agriculture sector in Nepal.* Rome, Italy: Food and Agriculture Organization of the United Nations.

Freedom Forum, IIDS, MuAN, NEFEJ and Samudayik Sarathi (2015). *Challenges and opportunities in municipal governance. Voice of Cities: LGAR Special Edition,*15 (1). Kathmandu: The Asia Foundation, Australian Government and Municipal Association of Nepal.

Fussel, H-M. (2007). Vulnerability: A generally applicable conceptual framework for climate change research. *Global Environmental Change*, (17) 155–167.

Fussel, H.-M., Klein, R. J. T. (2006). Climate change vulnerability assessments: An evolution of conceptual thinking. *Climatic change,* 75 (3), 301–329.

IPCC (2007). *Climate change 2007: Impacts, adaptation and vulnerability, Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, 976, Parry, M.L., Canziani, O.F., Palutikof, J.P., Linden, P. J. and van der and Hanson, C.E. (Eds.). Cambridge, UK: Cambridge University Press.

ISET (2010). *Climate change in Asia,*Seraydarian, L., Opitz-Stapleton, S., Moench, M., Dixit, A. and Gyawali, D.(Eds.). Kathmandu and Boulder: Institute for Social and Environmental Transition-Nepal (ISET-Nepal) and Institute for Social and Environmental Transition (ISET-International).

ISET (2012). *Changing cities and changing climate: Insights from shared learning dialogues in Thailand and Vietnam.* Bangkok, Thailand: Institute for Social and Environmental Transition.

K. C. , B. K., Bhujel, I. B., Pokharel, M. and Devkota, S. (Eds.) (2015, March).*Comprehensive evaluation of user committee policies and practices, Research report.* Kathmandu: National Federation of Youth NGO Nepal and Federation for Good Governance

Kulkarni, A., Patwardhan, S., Kumar, K., Ashok, K. and Krishna, R. (2013). Projected climate change in the Hindu Kush–Himalayan region by using the high-resolution regional climate model PRECIS. *Mountain Research and Development*, 33(2), 142-151. Pune, India: International Mountain Society.

LSGA (1999). Local Self Governance Act, Kathmandu, Ministry of Federal Affairs and Local Development

MoF (2011a). *Development cooperation report fiscal year 2010-11*. Kathmandu: Ministry of Finance, Government of Nepal.

MoF (2012). *Development cooperation report fiscal year 2011-12.* Kathmandu: Ministry of Finance, Government of Nepal.

MoF (2013a). *Development cooperation report fiscal year 2012-13*. Kathmandu: Ministry of Finance, Government of Nepal.

MoF (2013b). *Economic survey for fiscal year 2012/13*. Kathmandu: Government of Nepal, Ministry of Finance.

MoF (2013c). *Statement of technical and other assistance for fiscal year 2012/13.* Kathmandu: Government of Nepal, Ministry of Finance.

MoF (2013d). *Estimates of expenditure for fiscal year 2012-13*. Kathmandu: Ministry of Finance Government of Nepal.

MoF (2013e). *Foreign aid in Nepal fiscal year 2011-12, Aid brochure.* Kathmandu: Government of Nepal, Ministry of Finance.

MoF (2014a). *Aid management platform.* Kathmandu: Ministry of Finance, Government of Nepal. http://aims.mof.gov.np/portal

MoF (2014b). *Estimates of expenditure for fiscal year 2013/14*. Kathmandu: Ministry of Finance, Government of Nepal.

MoF (2014c). *Economic survey for fiscal year 2013/14.* Kathmandu: Ministry of Finance, Government of Nepal.

MoF (2014d). *Profiles of development partners*. Kathmandu: International Economic Cooperation Coordination Division, Ministry of Finance, Government of Nepal.

MoF (2014e). *Statement of technical and other assistance for fiscal year 2013-14.* Kathmandu: Ministry of Finance, Government of Nepal.

MoFSC (2011). *Multi stakeholder forestry program: Common program document.* Kathmandu: Ministry of Forest and Soil Conservation, Government of Nepal.

MoFSC (2012). *Ecosystem based adaptation in Nepal in mountain ecosystem in Nepal.* Kathmandu: Ministry of Forest and Soil Conservation, Government of Nepal.

MoSTE (2010).*National Adaptation Program of Action (NAPA) to Climate Change.* Kathmandu: Ministry of Science Technology and Environment, Government of Nepal.

MoSTE (2011).*National framework on local adaptation plans for action.* Kathmandu: Ministry of Science Technology and Environment, Government of Nepal.

MoSTE (2012). National climate change support program. *Program Bulletin.* Kathmandu: Ministry of Science Technology and Environment, Government of Nepal.

MoSTE (2015).*Indigenous and Local Knowledge and Practices for Climate Resilience in Nepal,* Mainstreaming Climate Change Risk Management in Development, Ministry of Science, Technology and Environment (MoSTE), Kathmandu, Nepal.

Nakhooda, S., and Jha, V. (2014). *Getting it together: Institutional arrangements for coordination and stakeholder engagement in climate finance.* London: ODI publication

NAPA (2010). *National Adaptation Plan of Action,* Ministry of Science, Technology and Environment, Kathmandu.

NCVST (2009).*Vulnerability through the eyes of vulnerable: Climate change induced uncertainties and Nepal's development predicaments.* Kathmandu and Boulder, Colorado: Institute for Social and Environmental Transition-Nepal (ISET-Nepal) and Institute for Social and Environmental Transition (ISET) for Nepal Climate Vulnerability Study Team (NCVST).

Nepal Climate Change Policy (2011). Ministry of Science, Technology and Environment, Kathmandu.

NPC (2012).*Climate change budget code.* Kathmandu: National Planning Commission, Government of Nepal.

NPC (2011).*Nepal climate public expenditure and institutional review (CPEIR).* Kathmandu: Government of Nepal, National Planning Commission, Government of Nepal, UNDP, UNEP, CDD, EFAP.

NPC (2012).*Documenting the national process of arriving at multi-sectoral consensus criteria and method.* Kathmandu: National planning Commission, Government of Nepal.

OECD data bank: http://stats.oecd.org

Oxfam (2010) *21st Century aid: Recognizing success and tracking failure*. Briefing paper 137.

Oxfam (2014).*Finding the money: A stock taking of climate change adaptation finance and governance in Nepal.* Lalitpur: Oxfam, Country Office, Nepal.

Rupantaran Nepal (2014). *Finance documents.* Rolpa: Rupantaran Nepal Office.

Shrestha, B., Shrestha, H.S., and Bhatt, S., (2 004), *Foreign Aid Utilization at the Grassroots Level: A Case study of Local Development Fund*, Institute for Integrated Development Studies (IIDS), Kathmandu, Nepal.

The Asia Foundation, and ESP (2012). *A guide to government in Nepal, structures, functions and practices.* Kathmandu: The Asia Foundation and Enabling State Program Publication.

The Asia Foundation (2012).*Public accountability in peril:* A compendium of investigative journalism reports on municipal budget performance. Kathmandu: The Asia Foundation.

UNDP (2013a).*Community based flood and glacial lake outburst risk reduction program.* Project Document.

UNDP (2013b).*Ecosystem based adaptation in Nepal in mountain ecosystem in Nepal,* Annual Report.

UNDP (2013c).*Ecosystem based adaptation in Nepal in mountain ecosystem in Nepal,* Project Document.

UNDP (2014).*Ecosystem Based Adaptation in Nepal in Mountain Ecosystem in Nepal.*

VDC profile (2013).*Village development committee and demographic profile of Nepal: A socio-economic development database of Nepal.* Kathmandu: Mega Publication and Research Centre.

WWF Nepal (2012). Program Brochure. *Hariyo Ban Program.* Kathmandu.

WWF Nepal (2014a).*Semi annual progress report.* Kathmandu: Hariyo Ban Program.

WWF Nepal (2014b).*Promoting climate change adaptation in Nepal.* Kathmandu: Hariyo Ban Program.