Climate Change Governance and Funding Dilemma in Nepal

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Abstract

Climate change is now becoming a serious social and environmental problem of the world and development issue in developing countries. The decade long negotiation on climate change has progressed in policy debate but contributed less in terms of real action on ground. This study tried to explore and analyse governance and financing on climate change adaptation with particular reference to Nepal using political economy and institutional analysis framework. The findings suggest that Nepal has attempted, but not been able, to capitalize on international and national funding and implementation of its adaptation priorities. The national outlook and public support is positive in Nepal. There are, however, some issues around institutional and financial mechanisms. Lack of policy coherence, donor aid fatiques and sectoral fragmentation of programmes are together preventing the conducive environment for adaptation to climate change in Nepal. This is impaired by the lack of sufficient information on country's exposure to climate change which constrains decision making at different levels. One of the plausible strategies to overcome the governance challenges can be decentralized mainstreaming actions that promote collaboration and engagement among various actors.

Key words: Adaptation, climate change, collaboration and engagement, governance, mainstreaming

INTRODUCTION

Timid progress on mitigation has increased the need of urgent actions on adaptation for individuals, communities and nations for securing livelihoods and sustaining development achievements (Huq et al., 2003). This fact was agreed by international community as reflected in the Bali Action Plan (decision 1 c and d) (United Nations Framework Convention on Climate Change (UNCCC), 2008). The Cancun Agreements reaffirm putting adaptation of the same importance to mitigation recognizing unequivocal warming of the climate system mostly due to anthropogenic greenhouse concentrations (UNFCCC, 2011). These international agreements on adaptation warrant appropriate actions globally to support the vulnerable communities residing in poor and vulnerable countries.

¹ Actions on mitigation and adaptation through financial and technological interventions by all possible means

Poor communities in least developed countries have other urgent priorities like poverty alleviation and fulfilment of basic needs. The social and economic problems are massive and urgent in these countries. In this context, poor countries like Nepal are at the cross road stretched by development priority, bearing the burden of adverse impacts of climate change and environmental responsibility. This reality emphasizes the need for main-streaming climate change adaptation into development.

On the other hand, mainstreaming progress has been limited by the international discussion and negotiation around adaptation financing (Klein et al., 2007). While there is no universally accepted definition of mainstreaming, it has been variously defined and described. According to Agrawal (2005), mainstreaming is defined as "the integration of climate change vulnerabilities or adaptation into some aspect of related government policy such as water management, disaster preparedness and emergency planning or land-use" (p.15). It is clear that for any cost associated with adaptation to climate change impacts, the historical responsibility of compensation and support of industrialized and developed countries is important. It is principally agreed among the international communities through UNFCCC processes and associated agreements (Kyoto Protocol, 1997; Bali Action Plan, 2007; Copenhagen Accords, 2009; Cancun Agreements, 2010). However, the support (both on finance and technology) till the end of its date is voluntary, limited to pledges and commitments.

Discussions and decisions on adaptation financing should build on the agreed principles and expand further to adopt legally binding agreement which rests on new, additional and sufficient resources to help the vulnerable population in poor countries to adapt (Bouwer, 2006). However, this is yet to come into reality to relieve these communities and their natural resources.

There are also issues related to governance of climate financing and promoting adaptation in Nepal. Although there are issues at global level, fixing operational modality at national and local level is relatively urgent and important. The policy makers and development agencies are desperately looking for information and evidences that demonstrate practical effectiveness of approach and mechanisms of facilitating climate change governance. Therefore, this research paper is relevant to support government of Nepal and Nepali stakeholders to identify an operational modality for fixing governance challenges and finding effective ways of implementing adaptation responses at the local level.

METHODOLOGICAL FRAMEWORK

This study tried to explore and analyse governance and financing dilemmas on climate change adaptation with particular reference to Nepal. Specifically it aims to explore the dynamics of policy development, fund flow and resource management in climate change adaptation in Nepal. Nepal was selected because it is one of the most vulnerable Least Development Country and is identified as the pilot country for multilateral and bilateral funding on adaptation. There were a total of 173 respondents who were directly consulted for the study purpose². The respondents included 126 from households, 40 from practitioners (community, government and NGOs involved in projects and programs), and 17 representing policy makers (government officials and policy makers)

² The perception of respondents used in this research was adapted from the main author's preliminary outcome of the PhD thesis (unpublished) so this article will be adapted in the thesis.

and donor communities. The research involved both structured and semi structured interview with the participants in order to draw their perception about climate change governance in Nepal. For community level interaction and interview, two village development committees Bangesaal and Dhungegadi were selected purposively. Similarly, the respondents for practitioner and policy makers were selected purposively based on their experiences and work in implementing climate change project/program and engagement in policy making process.

The analysis was based on the available information published and interaction among individuals on vulnerability to climate change and adaptation financing. Information derived from various sources (community, practitioner and policy makers) was triangulated to analyse issues and where possible case examples have been presented to simplify discussions. Cluster analysis³ was used to map the difference in perception of stakeholders.

Theoretical Framework

This research used the political economy analysis framework in analyzing the governance of climate change adaptation in Nepal. The political analysis framework has been used by the development agencies since past few years. The development partners, particularly World Bank and Department for International Development (DFID) used this framework to analyse the overall governance structure at country level and examining the drivers of change and influence (Tanner and Allouche, 2011).

The political economy was first introduced in climate change policy analysis by Brandt and Svendsen (2003). The authors looked into the analysis of the choice of instruments to control climate change in the European Union (EU) policy on meeting Kyoto Protocol. Latter, Tanner and Allouche (2011) proposed a new framework. This new framework proposes conceptual and methodological approach for analysing the political economy of climate change. It is based on the premises that it is necessary to understand the impact of regional or global drivers on domestic change processes given the increasingly interdependent nature of the current global system. The framework focuses on the climate change policy processes and outcomes in terms of ideas, power and resources (Tanner and Allouche, 2011, pp. 2-4).

This paper also referred to the institutional framework proposed by Agrawal (2008) to explore the dynamics of stakeholders and their role in climate change governance. Hence, adapting the political economy and institutional framework, the research has analyzed the policy, institutional and financial mechanisms governing climate change in Nepal. The influencing factors, such as power and resources, were assessed in the overall shaping of agenda and designing mechanisms at national level.

Context Setting

Nepal is considered to be one of the countries that are most at risk to climate change effects. Climate Change Risk Atlas 2010 ranks Nepal as the 4th most vulnerable, indicating the extreme vulnerability situation of the country⁴. Disease epidemics,

³ The software developed by Social Analysis System (SAS) working groups is used for the analysis.

⁴ WB, ADB and DARA reports (2010), Maple croft Climate Change Risk Report (2009/10)

landslide, floods, forest fire, thunderstorms and cold waves have dominated disaster events in the past (UNDP, 2009). In the last two years over 1.9 million people have been severely affected by similar events (Nepal Climate Vulnerability Study Team, 2009). There are evidences showing the strong linkages between poverty and climate change (Gentle and Maraseni, 2012).

Nepal's climate is largely the function of altitude and aspect due to its mountainous topography. There are several distinct micro-climatic areas that consist of peculiar climate conditions. There is a large spatial variation in annual rainfall across Nepal ranging from less than 150 mm to more than 5,000 mm, and similarity with its temperature (Practical Action, 2009). The change in temperature and precipitation observed so far for the last 30 years is uneven pattern despite variation of temperature which is higher in higher altitude ((Practical Action, 2009). The rate of warming in the Himalayas is greater than the global average, confirming that the Himalayas are among the regions most vulnerable to climate change (Shrestha et al., 2012). Although not enough, impacts were seen in hydrological systems, agriculture and weather related hazards such as drought, extreme rainfall, and forest fire (Alam and Regmi, 2004; Malla, 2009).

Though not in required pace, "climate change has received a high level political support in Nepal, which in turn led to the development of national level policies" (Institute of Development Studies & International Institute for Environment and Development, 2011, p. 10). Over the last 2 years, a number of institutions related to climate change were established at the national, sectoral and local level (Ministry of Environment, 2011). Nepal prepared National Adaptation Program of Action (NAPA) launched in October 2010 endorsed climate change policy recently. The government has established climate change council under the chairmanship of the Prime Minister and strengthened the Ministry of Environment and its mandate to coordinate by approving climate change division within the ministry. Government has also endorsed the framework for Local Adaptation Plan of Action (LAPA) recently to support the implementation of adaptation priorities identified in NAPA. Similar efforts were made in areas of renewable energy, Reducing Emission from Deforestation and Forest Degradation (REDD) and low carbon development (MoE, 2010).

The country also has put in place a Donor Compact on climate change, signed in September 2009 by 14 key development partners and the Ministry of Environment, which sets the scene for donor harmonisation and alignment around nationally prioritised climate change initiatives. Initiatives were also taken by civil society organizations as well from various perspectives through different sectors and integrated approaches on climate change adaptation as it appears in Nepal Climate Change and Development portal of Nepal Climate Change Knowledge Management Centre (NCCKMC).

FINDINGS AND DISCUSSION

Climate Change and Technological Barriers

Climate change is perceived as a reality in Nepal. The impacts are felt by millions of communities living in fragile and rural areas of Nepal. The findings of the community consultations in two of the research villages, Bangesaal and Dhungegadi of Pyuthan district, also strongly suggest that climate change is no longer a sceptic but a genuine reality. More than 98% (out of 128) of the respondents expressed that the variability in

temperature and rainfall has increased in last 20 years. They also mentioned that rainfall variability is the major cause of problem observed in agriculture, food security and access to water resources. There were enough evidences at local level demonstrating the impact of climate change on the livelihood of poor and marginalized communities. The drying of well and springs and decline in agriculture productivity was heating hard on the livelihoods of resource dependent communities. There were other findings suggesting a similar trend in other parts of Nepal (Biggs and Watmough, 2012).

The severity of impact of climate change was out of the communities' capacity and coping ability. Findings of the household survey, carried out during the research in two VDCs of Pyuthan, also found the limitation of traditional adaptation practices. Respondents reported that many of the adopted traditional practices were ineffective. Almost 89.1% of the respondents in both the VDCs perceived that the existing adaptation options were ineffective and could not address the climate risk and impact. Similarly, the focus group discussion with local government officials, communities and civil society revealed that there was lack of information and technology to deal with extreme climatic events and uncertainties. Findings also showed that there was also a lack of government support and flow of resources on adaptation. Furthermore, government service providers were not confident about the technology needed to respond to the extreme events and impacts generated by climate change.

Issues around Climate Change Governance

Despite its positive move towards climate change adaptation, Nepal is facing challenges in climate change governance and more specifically issues related to climate financing. Many factors, both domestic and international, are involved in buffering climate financing. It is therefore necessary to understand both the international and national dynamics governing climate change financing and implementation modalities.

In climate change adaptation, the institutional architecture and governance is studied mostly from development assistance perspective. Bringing the institutional governance issues from developing country's perspective and experiences will add value to the debate and discussion going on at both national and international level. Both the institutional and financial mechanisms are important pillar of governance, so they should be analysed together. This is largely shaped in by policy. Adaptive polices can only be effective if they are integrated (Tearfund, 2006). The following sections will outline the major issues and challenges related to climate change governance in Nepal.

Complexities in national climate financing

Climate change financing is recently in the spotlight and debate at national level. Regmi (2011) in his recent newspaper article described the debate saying

the fundamental debate in adaptation financing, at national level, is the notion of implementing under aid umbrella or separate financial umbrella as currently agreed and debated under UNFCCC. There are principle differences in aid money and adaptation resources. Aid money is donors' voluntary commitment to help developing countries to progress development, whereas the adaptation resources is a moral responsibility and compensation from developed countries and the right of least developed countries to have access to resources (Regmi, 2011, p. 4).

But failing to realize this, largely on the parts of donors and to some extent on the parts of the recipient, has created a dilemma and hindrances in climate financing. Some critiques have highlighted that the lack of commitment from rich and developed countries has led to mistrust, creating deadlock in negotiation and also affecting the relationship between countries (Gupta et al., 2010).

But, Nepal does not have capacity to sustain damages and losses and needs external support for both development and climate change issues (Subedi, 2010). Therefore, it has faced two directional issues in receiving and managing climate financing stretched by its development priority coupled with environmental responsibilities among various pertinent agenda of inclusive development. Bringing both priorities together forward is not possible without integrating them for which good governance is the key (Ayers, Kaur and Anderson, 2011).

The development partners' condition of aid is related to the conditions on public financial management system, security, stability and transparency. Nepal has dropped in Transparency Internationals corruption perception index in recent years (Oxfam, 2011). This has triggered in lack of trust of donor agencies with the public financial management system. This situation is true as of many least developed countries as the condition for aid and will trigger how financial resources are channelled and managed. More than 60% of the bilateral funding in Nepal is through the direct channel (Regmi, 2011). Only in sectors like health and education, the government and donors have worked out ways of budget support for implementing sector wide approach. This sector wide budget system was also criticized by government officials. There are conditions and requirements set by development partners where government should comply. There were often issues related to the differing ways that donors work with government and in the spectrum of projectised to programmatic support (Bird, 2011).

Ayers et al. (2011) argue that the real drivers of the global political economy of climate change are the evolving financial architecture at both international as well as National level. This implies that understanding the climate financing at National level is key to understanding climate change governance in general. Nepal has submitted its NAPA to UNFCCC. The total 9 programmes prioritized in NAPA as most urgent and immediate require 350 million USD to implement; the total requirement for implementing NAPA is over billion US dollar for coming 3-5 years (Oxfam, 2011). The detailed climate financing is outlined in Appendix 1.

The Climate Public Expenditure Review carried out by UNDP/UNEP shows that there are 13 programs, with a total cost of USD 326 million, funded or in the process of being funded by donors. The proportion of government versus donor funding varies within the five year period. Government funding on climate change was 54.2% in 2007/2008 and it decreased to 44.1% in 2011/2012. In contrast, the proportion of donor grant increased from 20.7% in 2007/2008 to 40.4% in 2011/2012. Of this amount, approximately USD 225 million is in terms of grants and about USD 101 million is in terms of loan. This proportion of grant to loan is approximately 70 to 30 percent (Bird, 2011, pp. 39-43).

The entry of Multi donor trust fund generated some controversies in climate financing. There are issues in terms of loan acceptance in climate change adaptation. The Special Programme on Climate Resilience (SPCR) has provided 86 million USD to Nepal for implementing climate resilience programme out of which 36 million is loan. This has drawn a lot of criticism of the government and donors. Civil society and the media have

strongly advocated against loan in climate change adaptation⁵. They raised concerns over violation of UNFCCC agreement on the liability of developed countries to support the poor countries. The donors, particularly the World Bank and Asian Development Bank were interested to bring private sector investment in the SPCR through loan arrangement.

Institutional and policy inconsistency

Institutional and governance barriers need also to be tackled in terms of climate financing. The issue of who should coordinate and manage climate funds is also of interest to government. The Ministry of Environment in Nepal is yet to become confident and confirm its role on climate change either to act as coordinating body among ministries or management of climate funds. Lack of trust, clarity on roles and responsibilities and coordination was one of the constraints between ministries and between donors, governments and civil societies in terms of capacities, transparency and accountability.

In climate financing, there is rare discussion on the role of private, public and civil society institutions in transparent manner (Bird, 2011). As authorities put personal interest high up to national interests, institutional setup are so designed and devised that organizations lacking sufficient fund to please authorities do not have access into these setup despite their capability and expertise on climate change. Government officials nominated civil society organizations of their choices such as in the Multi-stakeholder Climate Change Initiatives Coordination Committee (MCCICC)⁶. The issue was lack of transparency and inclusiveness in government established governance mechanism.

The institutional environment was also equally responsible for shaping the climate change governance in Nepal. The power dynamics among institutions and the control over resources were a major issue. The climate change financing was more controlled by the donor agencies and non-government organizations. People had less access to financial resources. The majority of the respondents interviewed in two research sites mentioned that they lack direct access to financial resources. The aspiration for direct access was high among the communities and local stakeholders. Similar study conducted by Yates (2012) also outlined that the networks of powerful and well-connected political actors are able to control adaptation projects and the flow of knowledge and information.

There were also issues around institutional governance due to weak monitoring system and law enforcement. It was further damaged due to high political interferences and corruption cases. The political instability in the centre is affecting the fiscal planning and budgeting system as well as largely on the government's development programme and reach in rural areas. "Political instability for the last two decades and current stalemate over agree(ing) a new Constitution has inhibited government agencies to focus on mainstreaming agenda" (Khadka et al., 2012, p. 13). Many of the stakeholders, during consultation, highlighted issues around transparency and corruption providing examples of development planning. Interestingly expenditure of development budget was also a problem as many government bodies had not met their annual target. This kind of risks

⁵ Say no to loan was launched as protest theme in social networks and media by civil society networks like CCNN, NGO group on climate change, etc.

⁶ Framework for NAPA implementation (Ministry of Environment, 2010)

is also true in many least developed and developing countries mostly in Africa and Asia (Lasco et al., 2009; Senaratne et al., 2009; Sietz et al., 2008).

There were also policy dilemmas in climate change. The only policy document that talks about climate change adaptation is climate change policy. Climate change policy was recently endorsed by the cabinet. But the process adopted was criticized by many civil society and community groups as it failed to consult wider stakeholders at the interest of international agencies dominating authorities in the ministry (Helvitas, 2011). The interview with communities revealed that more than 99% (out of 128) were not aware about the existence of climate change policy. Similar responses of ignorance were also observed during consultation with NGOs.

National priority and available human resources to climate change issue

Climate change is a new area of research and policy in Nepal. There were very few institutions involved in climate change debate and discussion; practical interventions are rare. Government capacity in climate change was very weak. This has also affected the understanding and awareness among government line agencies about the urgency of climate change problem. The political parties and government leadership were busy in messy politics and has little time to think about climate change.

In separate consultation with policy makers, practitioners and communities, the researchers⁷ asked their perception⁸ on the importance of elements for climate change governance and priority of focus. There was divergent of views and understanding among the majority of actors as shown below. The policy makers were interested more on policies and programme; whereas, the communities and civil society and NGOs were interested in action and practice. Similarly, the government and NGOs prioritized the financial flow as a major element to climate change governance. But communities viewed the access to financial resources as their priority. Communities and NGOs perceived decentralization and devolution as important elements to governance. This view was also supported by government officials working in implementation. But the policy makers did not give much importance to these issues. There was similarity in views about the significance of transparency and accountability among actors. See the detail analysis⁹ of different among the major actors (Figure 1).

This information is useful to understand the dynamics of perception among different actors. It provided clear views on the different priorities and emphasis of actors. The conflict of interest arises from these divergent perceptions and prioritizes of stakeholders. In above case the communities and NGOs shared their common vision towards climate change governance slightly differing from government and policy makers views. It is thus necessary to view governance issues across different scales of institutional hierarchy and actors.

⁷ This part of the findings is adapted from the main researcher's PhD research outcome.

⁸ Perception was ranked in 1-5 scale where 1 is the lowest priority and 5 as the highest priority

⁹ Cluster analysis was used to map the similarities and difference in perception on the priorities of different actors.

"Map out difference in perception" Less significance of harmonization and coordination Lower imporance of transparency and accountability Policy makers Significance of direct financial access Less significance of addressing the gap in planning Low importance of policy and strategic programme x. Less significance of decentralization and devolution Low importance of translating policy in practice Communities and local stakeholders • _1: 92.7% Practitioners (civil society NGos) . -xLower significance of direct access to financial resources Higher importance of practice Practitioners (goovernment) Significance of decentralization and devolution 2: 5/6% Higher importance of policy/programme Higher signifinance of prioritizing missmatch in planning Importance of transparency and accountability Significance of harmonization and coordination

Figure 1: Mapping the difference in perception of the priorities of actors (using Pingrid)

Source: by the authors

Besides priority, the information and knowledge on climate change affects decision making process. Information generated by civil society and International NGOs were limited to isolated cases. The local level communities and stakeholders consultation during the research process also identified information and knowledge gap as key challenges to addressing climate change governance at local level. The government and I/NGOs seldom recognize each other's efforts and good practices and in many cases their activities were limited to advocacy in city centres. There was also a problem of brain drain due to lack of opportunity and fluid political context with major implication to human resources and labour force required to sustain rural livelihood and economy.

Reliability of climate information

After all, climate change is real and potentially severe for natural resources in Nepal. Resource dependent poor communities are at the forefront of the risk of adverse climate change impacts. Natural resources are common property resources already facing tragedy of commons¹⁰. Climate change is likely to affect many resources and is a concern for all.

Nepal has available weather data for only a short period since 1975 for analysis and they do not represent all the diverse climatic situation of the country. Sparsely distributed and redundant data cannot represent the country's climate system and its change. So, there is a gap in climate information in Nepal. There were uncertainties for the future as there was lack of sufficient data to predict future climate scenario (Dahal, 2008). Other factors, such as land use practices, massive deforestation and unsustainable development practices, often made development more challenging in Nepal. So, it was

¹⁰ Hardin, G. (1968), The Tragedy of the Commons, *Science*, Vol. 162(1968), pp. 1243-1248. URL http://www.garretthardinsociety.org/articles/art tragedy of the commons.html (Accessed 28 June, 2012).

difficult to identify climate change contribution to the consequences on the ground. Precaution is thus necessary while attributing consequences to climate change.

While observed changes on the ground were interpreted and attributed forcefully to climate change alone, future predictions were made based on the institutions that misguided the science¹¹. Such predictions are likely to decrease the trust on scientific climate forecasts inviting the story of 'crying wolf' into reality. So far, it is undergoing the tragedy of malicious misinterpretation, false attribution and propaganda dominated by the vested interests. Our information system and academic articles romanticized the experiences of local knowledge and experiences (Rai, 2011) as the basis of prediction. Reliability of climate information needs to improve and movement should come in the right track before it is too late.

Retrofitting and Redesigning of Climate Architecture in Nepal

In Nepal, concepts and discourse of climate change adaptation finance and most importantly the governance are at a cross-road. There is clearly the demand for government leadership to fix the issues around governance. But equally the donor communities and civil society have to support the government to create a conducive environment for effective change. In the context of uncertainty within climate science, viable pathway as a no regret option could be:

Mainstreaming Climate Change Adaptation into Development Planning

Climate change is a multifaceted problem and demands the involvement of multi-sectors and institutions. It challenges the traditional sectoral approaches and demands for cross sectoral response and coordination. Mainstreaming offers the opportunity of addressing the multi-dimensional complexities in adaptation and leading towards more harmonized and collective response to climate change impacts.

Mainstreaming climate change adaptation will also address the institutional constraints and challenges faced in the development sector in the past. It will overcome resource overlaps and inefficiency. Mainstreaming as a process and approach will also bridge the gap of planning deficiencies - promoting the mix of top down and bottom up mix of planning responses. There are however challenges to adapt mainstreaming agenda. Therefore, the first approach to mainstreaming should start with identifying ways of building synergy in the existing policy, programme and projects and attempting to harmonize them. During local level consultation, the integration of climate change in development planning was the top priority of local stakeholders.

Crafting Appropriate Institutional and Financing Architecture

Given the opportunities and constraints in the leadership of many government line agencies in management of climate financing in Nepal, there is no prescribed single option on the table.

¹¹ Climate Change 2007: Working Group II: Impacts, Adaption and Vulnerability. Chapter 10.6.2, pp. 493. This was based on: *An Overview of Glaciers, Glacier Retreat, and Subsequent Impacts in Nepal, India and China*. WWF Nepal Program, 2005. pp. 2, 29

The comparative advantages of institutions¹² as well as constraints point out the need to explore a mutually trusted *National Entity*¹³ under the government ownership for facilitating climate financing in Nepal. The resources could flow from donors or international regime to the Ministry of Finance. The Ministry of Finance provides the annual budget based on a plan to the national entity. National Entity will then manage on behalf of the government of Nepal and coordinate with line ministries, civil society and community groups to implement the programme. The high level policy coordination could be done by the Prime Minister chairing climate change Council on approval of national budget for climate change which will include the allocation of resources for sectoral and common pool activities. A similar type of institutional modality could also work at grass root level.

Increasing Multi-Stakeholder Involvement in Implementing Adaptation

As climate change affects almost every phenomenon on the earth, climate change adaptation demands a system of effectively functional institutions and networks involving local to national and international actors. These institutions can bring comparative advantages and add value to foster adaptive capacity and community resilience. The purposeful participation and engagement of stakeholders can be both in terms of management as well as service delivery. The mix of local and national capacity in forging meaningful dialogue and delivery is important in an adaptation context. There is also argument that the important way of achieving collaboration will be establishing principles of adaptive and collaborative management within and between national and local institutions (West, 2012). The multi-stakeholder forum at national and local level is meaningful to forge consensus on the governance mechanism and delivery options.

Addressing Knowledge, Technology and Capacity Needs

The capacity to deal with climate change uncertainty and innovations around shaping implementation demands for new skills, knowledge, technology and capacity. It should go beyond national and sector specific limited capacity to more broad knowledge and capacity at various levels ranging from community to policy makers. Centralized information and knowledge management should be challenged with innovative and flexible and shared learning dialogue and knowledge transformation from one village to another, district to district, generation to generation and beyond administrative and political boundaries. Technology transfer debate has to happen within climate change community, government and donors. Similarly, the capacity need should be identified from a different paradigm that fosters capacity of recipient rather than experts and higher level agencies.

Enhancing Reliability on Information

Information on climate change, impacts and future predictions needs to be reliable. Authorities in responsible departments need to take urgent actions. Government can get external funding and technological support for such initiatives. Control and correction of misinterpretation and false attribution is equally important for responsible actions to cope

¹² Institutions here refer to formal and informal organizations committed for collection actions.

¹³ The national entity is considered for an institution [that is] established by the government of Nepal to manage climate financing and coordinate between and among all relevant agencies and stakeholders in the country for climate change initiatives at both policy and practice. This entity would be semi-autonomous body closely working with DNA to UNFCCC and other national bodies.

with adverse impacts of climate change in Nepal. This demands for action to strengthen the research system for improving the information and knowledge on climate change.

CONCLUSION

Policy economy and institutional analysis suggest that the governance of financing climate change is important in Nepal. Financing climate change needs to be used effectively because of the severe threats of climate change and their impact on the poorest. Donors have not lived up to their responsibilities to fund climate change adaptation; Nepal has not effectively a) accessed existing funds, nor b) used effectively the money it has received. Donor reluctance to fund climate change adaptation in Nepal is diminished by documented corruption and distrust of the Nepal Government capacity to manage finances.

The Government of Nepal has made a commitment to climate change adaptation in terms of policy documents, but not yet in terms of practice. This is the core of the 'governance' argument. The governance failure is due to a problem of institutions (between formal institutions including organizations, structures and systems and informal institutions such as norms and practices). The Ministry of Environment has principal responsibility, but is not trusted by other ministries (ministries are like 'silos') and that planning adaptation is not decentralized.

One the basis in describing the governance problem, this paper argues that the solution lies in a) 'mainstreaming'; b) creation of a national entity; and c) decentralization, including but not limited to using the community-based resource management model for planning and implementing adaptation and addressing issues around knowledge and technology barriers.

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Appendix A

Funding scenarios on climate change in Nepal

As of 2010, Least Developed Country Fund (LDCF) has about 180 million in total and is expected to reach \$ 500 million by 2015. The current allocation for Nepal is around 10 million if divided among LDCs equally. Nepal might have 10-15 million USD (with probability of getting maximum out of it) in future to implement its urgent and immediate priorities identified by NAPA. Currently, government of Nepal is working with both UNDP to develop Project proposal for disaster risk reduction project. There is another financial window, Climate Investment Fund (CIF), which can be an opportunity for Nepal to access financial resources. The available resource is \$ 6.1 billion for climate technology fund and strategic climate fund (Ayers et al., 2009). There are already committed multilateral funding in Nepal, like PPCR, with 50 million grants and 36 million concessional loans. Resources is also announced for Nepal though Scaling Renewable Energy Programme (SREP) with around 40 million USD to invest in renewable energy and low carbon development policies and pilot programmes 14. Similarly, World Bank has provided 3.4 million USD to prepare REDD Readiness Plan for Nepal.

There were bilateral commitments being made for climate change. The UK governments department for International development (DFID) had committed to support climate change adaptation work in Nepal. European Union had also joined hand with DFID and used its Global Climate Change Capacity Assistance (GCCA) money to address the capacity building needs and mainstreaming issues on climate change. The total commitment is 18.9 million for 4 years. The USAID has indirectly provided (through INGOs) more than 40 million USD on climate change. There are other direct and indirect supports on climate change but largely focused on technical assistance.

Source: Adapted from Regmi, B. (2011, p. 4), 'Shocked and Stressed', *The Kathmandu Post*, July 5, 2011.

¹⁴ Climate Investment Fund (CIF) website www.cif.org