

**Nepal country workshop on the  
Environments of the poor in the context of  
Climate Change and the Green Economy**

Organized by  
National Planning Commission  
United National Development Program and  
United Nations Environment Programme

Kathmandu

18 November, 2010

# Environments of the poor in the context of Climate change and the green economy

## Executive Summary

Under the leadership of National Planning Commission, a workshop on “The Environments of the Poor in the Context of Climate Change and the Green Economy” was held on 18 November 2010 at Himalayan Hotel. Over 70 participants attended from government (NPC, MoLD, MoE, PAF), non-governmental organizations, development partners, private sector, community organization and academic institutions. The objectives of the workshop were twofold: to make recommendations to the National Planning Commission for their next Periodic Plan and to make recommendations to the Ministry of Local Development to strengthen the decentralisation process. The workshop highlighted the following key conclusions:

- **There is clear linkage between poverty and environment.** Degradation of the environment affects the livelihoods of poor women and men who are most dependent on natural resources. Poor people are also more vulnerable to climate related risks e.g. floods and draughts. The environment also affects the health of poor people through indoor air pollution and lack of clean water and sanitation.
- **Both NPC and MoLD have a key role to play in identifying pro-poor environmental and climate investments.** This should include the areas identified in the National Adaptation Plan of Action (NAPA).
- **NPC and MoLD need to invest carefully in rural infrastructure – carefully combining labour based roads and properly designed heavy equipment based roads.** Even though they are more costly in the short run, labour based roads last longer. So labour based roads have an internal rate of return that is 30% higher than heavy equipment roads.
- **Nepal must think carefully about how it extracts its mineral resources** to maximise economic benefits and minimise social and environmental impacts.
- **Upland poverty requires empowering rural households combining traditional knowledge with modern science.** These households are already facing a changing climate along with other difficulties.
- **Renewable energy already provides 9% of electricity, but these schemes need to be further upscaled.**
- **Leasehold and community forests can be pro-poor** but require a multi-stakeholder and landscape approach.

## **Opening session**

The UNDP Deputy Country Director, Jorn Sorensen highlighted that climate change poses a major risk to many development projects and programmes. To maximise growth, both NPC and MoLD can play a key role to pay more attention to climate change in the planning and budget process. The NAPA or national plan of action for climate change has been developed. But its key recommendations and proposed programmes need to be included in the Periodic Plan and in District Development Plans. He also stressed the importance of environmentally friendly rural roads and effective use of natural resources especially minerals.

The Vice Chair of the National Planning Commission highlighted that Nepal's growth and development path needed to address climate and environment issues. He stressed the need to take a location specific approach as the type of poverty and environmental issues varied significantly across the country.

The Secretary Ministry of Local Development (MoLD) stressed that MoLD is serious about addressing natural resource and climate issues. The twenty two Districts which are involved with natural resource extraction are now implementing tougher environmental monitoring and enforcement.

The Member of the National Planning Commission stressed the need for national climate and environment policies developed by NPC to be effectively linked with local level actions promoted by MoLD and by DDCs and VDCs.

## **Workshop Recommendations**

**Paper 1: Integrating Environment, Poverty and Green Economy into National Planning process - Mr. Puspa Lal Shakya, Joint Secretary, NPC and NPD, SPMC-NPC and Mr. Gopi Nath Mainali, Joint Secretary, Infrastructure Development Division, NPC**

The five year plan is being drafted. Challenges include ownership of the plan due to the failure in consensus-making between political parties. We are still not able to integrate South Asia Development Goals, SDGs (2007-12). The SDGs identifies a set of twenty-two goals. Of these, 8 SDGs are related to livelihood, 4 to health, 4 to education and 6 to environment. We need attempt to integrate them in the coming plan. The poverty and social marginalization are closely linked to environmental degradation – floods, rising temperatures etc. are the examples of environmental crisis. As such inclusion of mitigation mechanism for such environmental hazards is a daunting task.

Study shows every 1% increase in per capita agricultural output leads to a 1.61% increase in the incomes of the poorest 20%. Bio-technology needs to be applied in agricultural processes. A genetic modification of micro-organisms through bio-technology has made agriculture

competitive – viz., development of virus-free potato seed, banana etc. We need to have much more research in this area. Adoption of Green Technology that reduces environmental damages for the economic development activities is one of the key for sustainable development. It requires a lot of investment in R&D in the future.

**Paper 2: Recommended Climate Policies and Investments from the National Adaptation Plan of Action and Climate Screening from Investment Projects with focus on Safeguarding Pro-poor's Livelihood - Dr. Ganesh Raj Joshi, Secretary, Ministry of Environment and Mr. Batu Krishna Upreti, Joint Secretary and Chief , Climate Change Mgmt. Div. Ministry of Environment**

Institutional development is the key for the effective implementation of any program. Following institutional development is made for the mitigation and adaptation of climate change in Nepal. Nepal is signatory party of the FCCC and it is ratified. Separate Ministry of Environment is established and there is a separate Climate Change Council headed by the Vice Chairman of National Planning Commission. We have also Climate Change Management Division within Ministry of Environment. National Adaptation Program of Action (NAPA) is already prepared and launched since 4 November, 2010. Local Adaptation Plan of Action (LAPA) is under preparation and is going to finalize within few months to translate NAPA into action. We need at least 350 Million US\$ urgently for the adaptation of Climate Change as per the NAPA. However, there is very little amount available from the donor community.

Some of the challenges and recommendations are there is a gross lack of data on the impact of climate change or the impact of disaster risk. In view of this it is difficult to make effective planning and monitoring of the programmes on disaster risk reduction, mitigation or climate change adaptation. Therefore, it is desirous to collect regular data on disasters risks and their impacts.

There is need for implementing the targeted programmes focusing on the extreme poor to cope with negative impact of climate change. Most of the poor are agricultural laborers or small peasant holders; the impact of climate change affects both of them. Therefore, separate targeted programmes need to be implemented for the improvement of their livelihoods. We need to improve the infrastructure and services to enhance the coping capacity of the disaster prone communities on the one hand and reduce the disaster risk

Nepal has negligible carbon emission compared to its neighbors and developed countries. Nepal has been expanding its protected areas. The benefits of such protection are global, where its opportunity cost in terms of foregone benefit is local. Therefore, we need international support for poverty reduction and the disaster risk management. Of all the measures, improving the governance is a must. This requires proper incentive structure. The major problem for the execution of NAPA is the availability of fund.

**Paper 3: Upland Poverty – Examining Causes, Identifying Solutions - Mr. Raj Babu Shrestha, Executive Director, Poverty Alleviation Fund (PAF)**

We have higher poverty incidence in mountains and hills. Visible impacts of climate change are seen in mountains and hills due to erratic rainfall pattern, depletion of water source, decrease in winter snow fall and less moisture, less availability of fodder and grass in pasture, and more

incidence of landslides. As 80% of the poor depend on agriculture, we need to assess the impact of climate change on agriculture to mitigate the problem of poverty. The poor coping mechanisms need to be complemented by modern science.

**Paper 4 : Local Government Expenditure and Rural Roads: Economics of Reducing Poverty While Managing Climate and Environment Risks - Dr. Govinda Koirala, NRM Economist**

Studies show that equipment based technology for the construction of rural road is more vulnerable in terms of landslides and damage of greenery. Whereas roads prepared by labour are green roads and less chances of landslides. It also found that though the cost is high in case of labour based roads, however, it have 30 % higher return compared to equipment based roads. Labour based roads also provide more employment to the poor and hence it is found always pro-poor and environment friendly. Some of the challenges and recommendations are.

We need to be clear about the approach of rural infrastructure development including roads; need to specify the sources of funding and its modality while designing budgetary framework, enforce financial related laws and regulations, aware about the technical and environmental issue, and take initiative for providing technical assistance and capacity development of Local Bodies.

We should consider the part operation and maintenance, while planning, designing and construction of roads and ensure rural infrastructures and their significance in livelihood in the curriculum of school education. Develop alternative options for the displaced households, community and groups by employment, income and land, due to rural road constructions,

Roads should be pro-poor, resource adequacy based, environment friendly, technically viable, risk free, inclusive and market friendly hence, considering the cost, environment and pro-poor mechanism we are going to adopt blended technology i.e. combining both labour based and equipment based depending upon the physical condition of the area.

**Paper 5**

**Local Government Revenue Raising from Natural Resources: How Better Natural Resources Management Can Increase Local Tax Revenues - Mr. Som Lal Subedi, Joint Secretary/Local Self-Governance Coordination Div., MoLD and NPD, LGCDP**

There are many provisions which provide local governments to utilize the natural resources and generate revenue for the development activities. Since all policies and programs developed by the central government are implemented at the local level, the local government must be strengthening which requires:

Clear mandate i.e. popularly elected local bodies or alternative arrangement, in our special case, for appropriate/popular representation. There should be clear legal provision and effective implementation of existing legal provisions on environmental screening. There is a need for implementing guidelines for sustainable and environment friendly development activities, and educate human resources available at the local level.

We need to design the revenue policy as per the nature of natural resources, consider the intergenerational equity while managing the natural resources. Correlate the expenditure functions and revenue assignments with basic functions like Planning, Regulation and Institutional Management.

Develop policy guidelines, procedures, norms; to avoid policy gaps and conflicts in resource extraction, use, revenue generation and sharing. The revenue mobilization from natural resources should be associated with overall development of local government. In this regard the raising revenue should be considered; not only focus on harvesting, but the emphasis should be given to revenue generation activities, like development of enterprises etc.

**Paper 6: Alternative Energy Linking Climate and Environment Consideration – Implication on the Improved Livelihood of the Poor - Dr. Narayan Chaulagain, Executive Director, Alternative Energy promotion Centre (AEPIC)**

Use of renewable energy is one of the viable options for the mitigation of climate change issue and other environmental problems. However, the use of Renewable Energy Technology is relatively low in relation to the potentiality of resources available in the country. It is less than 20 percent among all the available capacity of the technology. HDI & per capita energy consumption are directly related. Energy services are a proven catalyst for economic and social transformation. Hence, Alternative Energy plays a positive role to achieve MDGs.

**Paper 7: Leasehold Forestry and Community Forestry -Implications for the Poor, Environment and Climate Change - Dr. Bharat Pokharel, Project Director, NSCFP, SDC and Mr. Peter Branney, Programme Advisor, LFP/DFID**

Community forestry in Nepal has proved one of the best policies to protect the forestry in Nepal. Policies and practices of Community and Leasehold Forestry are increasingly becoming pro-poor and climate resilient. Study shows that there are visible and measurable impact of community and leasehold forestry in reducing poverty and the negative effect of climate change. Some of the challenges and recommendations are:

Both the community forestry and leasehold forestry should complement each other rather than working as rivals; an effective monitoring of the leasehold forestry is necessary so as to make it an effective pro-poor programme.

Both the community forestry and leasehold forestry can regenerate forest resources whose benefits extend beyond Nepal. Therefore, we require for the larger grants from other countries for the climate adaptation in view of Nepal' low carbon emission and larger amount of forest resources generated due to the community and leasehold forestry programme.

Community and leasehold forestry should serve as poverty reduction programme. Government should support these two programmes and mobilize communities and their resources for the benefits of the communities and the country.

# **Report on the Nepal Country Workshop on the Environments of the poor in the context of Climate change and the Green economy**

Date: 18 November, 2010  
Venue: Hotel Himalaya, Lalitpur

## **PART I: OVERVIEW**

### **INTRODUCTION**

Over the past decade, the Asia and Pacific region has shown a rapid decline in income-based poverty as a result of broad-based and largely pro-poor economic growth. In addition, social indicators of poverty in the region, as expressed in the Millennium Development Goals (MDGs) have shown substantial improvement. However, the development path followed by most countries has resulted in a host of negative impacts on the environment. There has been a corresponding increase in the incidence of poverty that can be attributed to environmental causes. While the Asia-Pacific region will continue to make progress in poverty reduction both in terms of income and social dimensions, environmental poverty in Asia and Pacific is likely to increase. It is estimated that by 2020, more than two-thirds of the vulnerable and poor population in the region will suffer from environmental poverty—up from less than one-half today. For the very poor, the environment will increasingly be the main factor in their poverty, while environmental causes of poverty are declining for the moderately poor. Aggravated by climate change and migration, especially rural dry land and urban slum poverty are increasing. The "environmental poverty" perspective categorizes poor people in a manner that demonstrates how environmental conditions affect their well being. Furthermore, adapting to climate change and policies to make green growth also pro-poor pose additional challenges for promoting inclusive development.

Nepal is currently preparing its Periodic Plan which will give greater attention to climate and environment issues for poverty reduction and inclusive growth. In addition the decentralization process which is providing larger funds for local governments to spend at the local level is leading to both opportunities and challenges in terms of natural resource management and adapting to climate change. In this context, it is also useful to carefully examine how successful government and non-government interventions have been that seek to offer solutions to both poverty reduction and environmental change.

To address these issues of environment and climate at the national and local level, development partners (UNDP/UNEP, ADB, ILO, SANDEE) and other government and non-governmental agencies involved in the national workshop on Understanding the Environments of the Poor:

Responding to Climate Change and the Green Economy. This has contributed to a regional conference that is being planned in Delhi on 24-26 November 2010.

Nepal Country workshop on “The environments of the poor in the context of climate change and the green economy was held on 18 November 2010 at Himalayan Hotel. Participants of the Nepal Country workshop (about 50) were a core team/panel of representatives from government, selected non-governmental organizations, development partners, private sector, community organization and academic institutions.

National planning Commission has taken the lead role for launching this national workshop with necessary support from UNDP/UNEP under PEI. The workshop discussed country specific research and policy papers prepared for the Delhi conference, as well as other relevant papers on “the environments of the poor”. The country workshop was intended to discuss country programs and strategies initiated to enhance environments of the poor in the context of climate change and the green economy including the “Periodic Plan” and the decentralization process being practiced by the National Planning Commission and Ministry of Local Development.

### **Objectives**

The country workshop mainly discussed new research findings and country policy and programmes relevant for the environments of the poor in the context of climate change, green growth, and building resilience against natural hazards. It highlighted contemporary issues faced by poor in regard to development and also suggested recommendations for policy majors in the national and local context.

The National Planning Commission is currently leading the process of developing the next periodic plan so the outcome of the workshop would be input in adopting poverty and climate responsive strategies and programs. Appropriate action in the context of climate change and green economy is the need of the day and that rightly point out the way forward for policy makers in the coming years.

As part of country experience, the outcome (issues and recommendations) of the workshop will be shared to the regional workshop to be held in Delhi from 24 to 26 November 2010.

### **Participants**

A total of seventy participants attended the workshop. They represent from various ministries working on the interface between poverty reduction, climate and the environmental issues. They include National Planning Commission, Ministry of Local Development, Ministry of Environment, Ministry of Forest and Soil Conservation, Ministry of Energy, Ministry of Foreign Affairs and from the development partners’ organizations, academia, think tank organizations, community organization and private sector.

Participants were also include from Government specialized agencies such as Poverty Alleviation Fund, Natural Resource and Conservation Committee, National Trust for Nature Conservation, National Academy of Science and Technology, DOLIDAR, Solid Waste Management, LGCDP, MoLD, AEPC and ADDCN.

Donor communities who participated in this national workshop were UNDP, the World Bank, ADB, ILO, LFP, DFID, SDC, GTZ, and REDD.

Representatives of academic and research institutions were also invited from Tribhuvan University, Kathmandu University, SAARC Secretariat, ICIMOD, WWF, IUCN, and WINROCK.

INGOs and NGOs in the area were also the invites to share their experience in the subject. They include CARE/Nepal, IIDS, SANDEE, FECOFUN and Practical Action. The list of participants is attached in **Appendix – I**.

### **Rapporteur**

Dr. Ram Chandra Bhattarai, Associate Professor and Head, Department of Economics, Patan Multiple Campus, Tribhuvan University worked as reporter.

### **Inauguration Program**

The opening ceremony of the program was chaired by Dr. Dinesh Chandra Devkota, Hon'ble Member of National Planning Commission (NPC) and the key note speaker was Dr. Jagadish Chandra Pokherel, Hon'ble Vice Chairman of NPC.

Mr. Gopi Nath Mainali, Joint Secretary of NPC highlighted the objective of the workshop and welcomed to all the guests and participants of the workshop. Mr. Jorhn Sorensen, Deputy Country Director, UNDP Nepal and Mr. Krishna Gyawali, Secretary of Ministry of Local Development, gave their remarks in the opening ceremony. Dr. Jagadish Chandra Pokherel, Hon'ble Vice Chairman of NPC gave his opening remarks. During his remarks Dr. Pokherel highlighted that during the tenth plan period PRSP was initiated and initiation was made to link the poverty with environment and also attempt was made to understand the dimensions of environment and poverty conceptually.

He added that the new plan emphasizes the NAPA. The main focus of the new plan will be new dimensions of the poverty i.e. minimum requirement for decent living. There is a problem of physical services (water, sanitation etc) to the poor. Growth depending on natural resources extraction may result dependency on natural resources. This may have impact on increase in road network without government notice. And such roads will be constructed without considering the environmental impact may result environmental hazards. He also added that Tools used for the Environmental Impact Assessment should be re-sharpened and reframed legally so that they may cover much more dimensions.

Similarly Dr. Dinesh C. Devkota, Hon'ble Member of NPC gave his concluding remarks from the chair of this session. He raised the issues like protection of bio-diversity and livelihood of rural poor and suggested to

- Conduct development activities and protect the environment
- Preserve the resources and fulfill the requirement of the stake holders
- Reduce poverty and follow the adaptation and mitigation measures due to climate change.

Lastly, he concluded that we need to develop a mechanism in our current planning process and macro-economic framework where we can incorporate these agenda.

Mr. Krishna Gyawali, Secretary of Ministry of Local Development gave his remarks stating that as developing country we need to utilize natural resources for the economic well being of the society. Though the effect of climate comes globally, however for the adaptation and mitigation of climate change effect needs local action. Hence all activities need to be localized. He emphasized that we need to have Environment friendly development activities at the central as well as local levels. For this we need to educate, listen and facilitate local bodies.

He added that the issues are related to the performance and non-performance of the local bodies. For this we need to decentralization of service delivery at the local level. It requires

- Clearly stipulated mandate i.e. popularly elected local bodies or alternative arrangement, in our special case, for popular representatives.
- Clear legal provision
- Guidelines for sustainable and environment friendly development activities, and
- Educate human resources available at the local level.

He further added that the major concern of today is the utilization of natural resources without considering the environment at the local level. About 22 out of 75 districts are heavily involved in the use of natural resources. He also assured that MoLD is going to make mandatory arrangement for adopting IEE and EIA for these districts within a couple of months. Now all contracts related to utilization of natural resources will be awarded on the basis of IEE and EIA.

Mr. John Sorensen, Deputy Country Director, UNDP Nepal also gave his remarks in the opening ceremony. He mainly highlighted the objectives of the workshop and raised the issue of river erosion, food security, risk of climate change and man made disaster. He further added that Climate change poses a major risk to many development projects and programmes. To maximise growth, both NPC and MoLD can play a key role to pay more attention to climate change in the planning and budget process. The NAPA or national plan of action for climate change has been developed. But its key recommendations and proposed programmes need to be included in the Periodic Plan and in District Development Plans.

He emphasized that there is over utilization of natural resources due to under pricing. Hence he suggested to consider the social cost while utilizing the natural resources and also suggested for inter-generational equity.

At the end of the opening session Mr. Atma Ram Pandey, Officiating Secretary of NPC gave vote of thanks to the chief Guest, Guests, and all the participants and ended the opening ceremony.

### **Closing Session**

At the end of the closing session was organized. The chair of the session was Mr. Krishna Gyawali, Secretary, Ministry of Local Development. Mr. Barry J. Hitchcock, Country Director, Asian Development Bank gave his closing remarks. In his remarks Mr. Hitchcock highlighted that in the approach paper of the coming plan the issue of climate change is addressed properly.

He further added that the ADB is in the process for helping preparing joint mission with government and multilateral banks for the preparation of pilot project for mitigation plans and also for global climate change negotiations. He emphasized that many things are to be done on climate change related disaster. Lastly he assured that the bank is ready to address poverty reduction activities and environmental sustainability in all projects and programs as a development partner.

Mr. Krishna Gyawali, Secretary Ministry of Local Development gave his remarks from the chair of the closing session. He highlighted that the workshop is in the right time. We just prepared NAPA and are discussion the right issue at right time. The papers have raised many issues and some of them are related to the Ministry of Local Development. He assured that the harmful activities within the preview of local government will be controlled within few months by implementing the IEE and EIA in all activities related to natural resource utilization. Finally he thanks to all and declared the session closed.

## **METHODOLOGY ADOPTED FOR CONDUCTING THE COUNTRY WORKSHOP**

### **Workshop structure**

The workshop was divided into two thematic areas firstly, Inclusive National Development: Need for Pro-poor Environment and Climate Resilience Policy and secondly, Local Level Policies and Practices for Pro-poor Development.

There were three presentations in the morning session which focuses on national policy framework related to pro-poor environment and green economy. The papers were critically examined by an expert to dig out what can be really used for future course of actions under PEI in Nepal as well as what could be taken as feedback to Delhi Conference. After the comments made by the expert about the presentations, the floor was opened for plenary discussion and wrap up by the Chair.

Similarly, in the afternoon session, there were four presentations which focuses on local framework and practices related to pro-poor environment. The papers were scrutinized and critically examined by an expert before opening for plenary discussion and wrap up by the Chair.

Resource person providing inputs for the country workshop were national and international experts. All presentations were made by national experts. The theme papers and Resource persons were as follows.

### **Morning Session Them: Inclusive National Development: Need for Pro-poor Environment and Climate Resilience Policy**

- 1) Integrating Environment, Poverty and Green Economy into National Planning process - Mr. Puspa Lal Shakya, Joint Secretary, NPC and NPD, SPMC-NPC and Mr. Gopi Nath Mainali, Joint Secretary, Infra. Dev. Division, NPC
- 2) Recommended Climate Policies and Investments from the National Adaptation Plan of Action and Climate Screening from Investment Projects with focus on Safeguarding Pro-poor's Livelihood - Dr. Ganesh Raj Joshi, Secretary, Ministry of Environment and Mr.

Batu Krishna Upreti, Joint Secretary and Chief , Climate Change Mgmt. Div. Ministry of Environment

- 3) Upland Poverty – Examining Causes, Identifying Solutions - Mr. Raj Babu Shrestha, Executive Director, Poverty Alleviation Fund (PAF)

**Afternoon Session Them: Local Level Policies and Practices for Pro-poor Development**

- 4) Local Government Expenditure and Rural Roads: Economics of Reducing Poverty While Managing Climate and Environment Risks - Dr. Govinda Koirala, NRM Economist
- 5) Local Government Revenue Raising from Natural Resources: How Better Natural Resources Management Can Increase Local Tax Revenues - Mr. Som Lal Subedi, Joint Secretary/Local Self-Governance Coordination Div., MoLD and NPD, LGCDP
- 6) Alternative Energy Linking Climate and Environment Consideration – Implication on the Improved Livelihood of the Poor - Dr. Narayan Chaulagain, Executive Director, Alternative Energy promotion Centre (AEPC)
- 7) Leasehold Forestry and Community Forestry -Implications for the Poor, Environment and Climate Change - Dr. Bharat Pokharel, Project Director, NSCFP, SDC and Mr. Peter Branney, Programme Advisor, LFP/DFID

**Morning Session and presentation from experts**

Morning session started at 10:30 hrs. The session was chaired by Mr. Krishna Prasad Acharya, Joint Secretary, Ministry of Physical Planning and Works. In this session three papers were presented. The first paper was presented by Mr. Pushpa Lal Shakya, Joint Secretary of NPC. The topic of the paper was Integrating Environment, Poverty and Green Economy into National Planning Process. He stated that mostly planning process tries to address the development concern. While considering the development activities IEE and EIA process is mandatory. Thus it tries to achieve sustainable development. He showed that there is clear linkage between poverty and environment. If there is degradation in environment it creates a problem of livelihoods to the poor people who depend on natural resources. The poor people are more vulnerable due to environmental risks e.g. floods and draughts. He emphasized that the current plan is trying to incorporate measures to address such problems.

He also emphasized in the paper that there are also problems of indoor air pollution, lack of clean water and sanitation, decrease in water and biomass. The planning process need to develop environment friendly programs such as;

- Sustainable small scale natural resource based industries.
- Public works programs for natural resource management
- Develop programs redesigned to take account of climate risks
- More investment in environment related issues like environmental health, Better Natural resource management,
- Focus of labor based environment friendly roads

- Develop public work programs that promote natural resources.

The detail of the paper is attached in the **Appendix-III**.

The next presentation was from Mr. Batu Krishna Upreti, Joint Secretary, Ministry of Environment. The topic of his presentation was Recommended Climate Policies and Investments from National Adaptation Plan of Action and Climate Screening from Investment Projects with focus on Safeguarding Pro-Poor's Livelihood. Mr. Upreti highlighted that about the institutional arrangements made so far for the mitigation and adaptation of climate change in Nepal. He added that Nepal is signatory party of the FCCC and it is ratified. Separate Ministry of Environment is established and there is a separate Climate Change Council headed by the Vice Chairman of National Planning Commission. We have also Climate Change Management Division within Ministry of Environment. National Adaptation Program of Action (NAPA) is already prepared and launched since 4 November, 2010. Local Adaptation Plan of Action (LAPA) is under preparation and is going to finalize within few months to translate NAPA into action. He showed that we need at least 350 Million US\$ urgently for the adaptation of Climate Change as per the NAPA. However, there are very few amounts available from the donor community. Full paper is attached in the **Appendix - IV**.

The third paper presented in the morning session was by Mr. Raj Babu Shrestha, Executive Director, Poverty Alleviation Fund (PAF). The topic of the paper was Upland Poverty-Examining Causes, Identifying solutions. While presenting the paper Mr. Shrestha highlighted that we have more poverty incidence in Mountains and hills. Visible impacts of climate change are seen in mountains and hills due to

- erratic rainfall pattern,
- depletion of water source,
- decrease in winter snow fall and less moisture,
- less availability of fodder and grass in pasture, and
- more incidences of landslides.

Further he suggested that for adaptation and mitigation we need

- short term relief projects
- increase investment in priority sectors
- need diversification of crops
- Blend traditional practices with modern science for improving knowledge
- Empower communities with information technology
- As the impact of climate change is different depending upon the locality hence action research is needed for different locality
- Focus infrastructure development in the mountains and hills
- Need to focus poor targeted programs
- Need to focus on community centered initiatives and community level institutions should be empowered.
- Deprived group should be empowered and educated
- PPP should be emphasized and encouraged
- Develop mechanism to reward for services provided by the mountains
- Balance and improve linkage between plain hills and mountains.

The full paper of Mr. Raj Babu Shrestha is presented in **Appendix-V**

With all these three presentation lead commentators gave their comments. Prof Bishwambher Paykuryal gave comment on the Paper of Mr. Shakya and Mainali and Mr. Shrestha. Prof. Paykuryal raised the following issues during his comments.

- There is a problem of ownership of the plan document due to the failure in consensus-making between political parties. When political interests converge, economic plans survive, but when political interest diverges, economic policy making is completely stalled.
- We are still not able to integrate South Asia Development Goals, SDGs (2007-12). The SDGs identifies a set of twenty-two goals. Of these, 8 SDGs are related to livelihood, 4 to health, 4 to education and 6 to environment. We need attempt to integrate them in the coming plan.
- The poverty and social marginalization are closely linked to environmental degradation – floods, rising temperatures etc. are the examples of environmental crisis. As such inclusion of mitigation mechanism for such environmental hazards is a daunting task.
- Study shows every 1% increase in per capita agricultural output leads to a 1.61% increase in the incomes of the poorest 20%. Bio-technology needs to be applied in agricultural processes. A genetic modification of micro-organisms through bio-technology has made agriculture competitive – viz., development of virus-free potato seed, banana etc. We need to have much more research in this area.
- Adoption of Green Technology that reduces environmental damages, for the economic development activities is one of the key for sustainable development. It requires a lot of investment in R&D in the future.

Detail comment from Prof. Bishwambher Paykuryal on both of these papers is presented in **Appendix VI**

Prof. Bishwo Nath Tiwari commented to the paper of Mr. Upreti as a lead commentator. Professor Tiwari emphasized that there is a gross lack of data on the impact of climate change or the impact of disaster risk. In view of this it is difficult to make effective planning and monitoring of the programmes on disaster risk reduction, mitigation or climate change adaptation. Therefore, it is desirable to collect regular data on disasters risks and their impacts

He further highlighted that there is need for implementing the targeted programmes focusing on the extreme poor so that they can cope with negative impact of climate change. Most of the poor are agricultural laborers or small peasant holders; the impact of climate change affects both of them. Therefore, separate targeted programmes are implemented for the improvement of their livelihoods. He further emphasized that Nepal has negligible carbon emission compared to its neighbors and the developed countries. On the other hand it has been expanding its protected areas. The benefits of such a protection are global, where its opportunity cost in terms of foregone benefit is local. Therefore, we need international support for poverty reduction and the disaster risk management. Prof. Tiwari also emphasized the improvement in infrastructure and services for the improvement of coping capacity of the disaster prone communities on the one hand and reduces the disaster risk. Finally he suggested for the improvement in governance and initiation of incentive structure. He further added that the major problem for the execution of NAPA is the availability of fund. As a developing country we are not able to contribute all expenditure for NAPA hence we request donor communities to support.

Detail Comment from Prof. B. N. Tiwari is presented in **Appendix VII**

### **Floor Discussion**

After the comment from the lead commentators comment from the floor was open. Following comments were raised from the floor for the papers presented in this session.

Yam Nath Sharma-MoLD

- Process should be screened from the environmental sustainability aspect and should be addressed from the point of environmental hazards too.
- The role of local government is very important for the implementation of adaptation process.

Mani Nepal- SANDEE

- There is no uniform situation on poverty incidence among the mountains and hills in regional context.
- There is lack of information or data to understand the impact of climate change on agriculture. Hence data base should be developed.

Rajendra Khanal- Chief IUCN Nepal

- We need to analyze the outcome of our plans and programs. With all these plans and programs now we are net importers of food grain- need to analyze the root cause.
- We need to think why we are facing water scarcity even though we are the second largest for water resources?
- We need to analyze regarding the pre-requisites required for the carbon trade.
- There is dependency syndrome in high hills due to subsidized rice provided by the Nepal Food Corporation. To cure this syndrome we need to promote of indigenous crops.
- There is much prospects of medicinal herbs and need to make research on relevant crops suitable to the region.

Shyam Upadhyaya

- Rajbabu's paper is general and less specific. It is not based on case study or project or program.

Prof. Madan Koirala

- There is limitation in transferring the policy in implementation. Hence it is difficult to the action into reality.

Dina Nath Tiwari- Practical Action

- Raj Babu's paper is general in statement but in practice reality is different. All deprived class of people is not affected in the same manner. The effect of climate change depends upon the profession on what they depend.
- Those who follow the profession of gold jewelry ornaments are not affected by the climate change; however, people involved and dependent on natural resources are vulnerable due to climate change.
- Adaptation measures stated in the paper are not only due to climate change rather due to other socio economic factors. Thus it needs to be revised.

Batu's paper

- Are we going to be driven by the outsiders? We need to think properly. It seems that we are going to be a worker for donor agency. We need to think whether we are going in proper direction.

Dr. Dinesh Bhuju-NAST

- Poverty will not be reduced due to policy or process rather it can be reduced only with the help of science and technology.
- Thus we need to invest in science and technology and for Research and Development, which is lacking in Nepal.
- Prof. Paykuryal rightly pointed out the need of bio-technology which is more important for agricultural development.
- The emerging countries like India and China are investing a lot for R&D. For example China invests about 2 % of its GDP for R&D.

Dr. Sumitra Amatya-SWRRMC

- Action is more important than policy and program to save our earth.

Jishnu Subedi- Institute of Engineering, TU

- Many of the plan statements are not realized in action
- Adapting mitigation mechanism can contribute micro-climate. Hence we need not minimize the issue of mitigation mechanism.

After all these comments the presenter of the paper clarified the issue raised on their paper and Chair Person concluded the session.

Mr Upreti's Response

- Ministry of Environment is not doing any implementation work. It is working as a coordinating agency.
- We need to consider poor but develop pro-rich programs
- We need fund for the adaptation programs. To achieve fund more pre-requisite are required.
- It is our compulsion to follow adaptation.
- NEPA is prepared and executed as a prerequisite for funding.
- There is a problem of data
- Our strategy is to strengthen the local institutions
- We will follow low energy development path, though it is not our requirement but will follow voluntarily.
- Carbon trade can be beneficial for the country. However, government does not involve on this trade. Government will facilitate for private sector.
- To achieve the desired goal all organs of the government should follow the policy prepared by the government.

Mr. Rajbabu Shrestha accepted all suggestion rose by the commentators and assured to address these comments in his paper.

At the end of the session chair person gave his concluding remarks stating that Climate change is a global phenomenon but its impact is local. We need to follow mitigation measures along with adaptation measures. We also need to make research on how different sectors and area are affected due to climate change and what we can do for these.

## **Second Session and Presentation by Experts**

The second session started at 13:30 hrs. The session was chaired by Mr. Krishna Gyawali-Secretary, Ministry of Local Development. In this session four papers were presented. The first paper was presented by Dr. Govinda Koiral, NRM Economist. The topic of the presentation was Economic Analysis of Local Government Investment in Rural Roads. The paper was the outcome of the findings of the study sponsored by the UNDP. The paper compared the labour based technology and equipment based technology for the rural road construction in terms of their economic performance and environmental hazards and greenery. It shows that equipment based technology is more vulnerable in terms of landslides and damage of greenery. Whereas roads prepared by labour are green roads and less chances of landslides.

It also showed that equipment are cheaper than labour hence there is more use of equipment for the construction of rural roads. Similarly, budget is released in the last of fiscal year and if not used within the fiscal year it will be freed. As such for fast performance equipments are used to construct rural road.

The study shows that though the cost is high in case of labour based roads, however, it have 30 % higher return compared to equipment based roads. As labour based roads provide more employment to the poor it is always pro-poor and environment friendly.

The paper suggests that:

- Use of bulldozers and rock blasting materials should be banned in rural road construction.
- Blended technology i.e. (use of both labour and equipment) is a viable option. Excavator can reduce the cost and can perform faster and less harmful for the environment.
- Use of equipment is more desirable in case of road widening, road construction in an area of long unmanned alignment and when it needs to break the rock.
- Stop development budget freezing at the end of fiscal year.
- Make budget available at the beginning of the lean season (i.e. November)
- Provide separate budget head for hiring technical manpower.
- Revise and update TDMP

The full paper is presented in **Appendix VIII**

The second presentation of this session was about the “ Local Government Revenue Raising from Natural Resources and the paper was presented by Mr. Som Lal Subedi, Joint Secretary of Ministry of Local Development. Mr Subedi highlighted different legal provisions under which revenue is collected for the utilization of natural resources. He also highlighted the provisions of sharing of revenue. He estimated about 5000 million Nrs comes revenue from Natural resources local and central government.

He raised some of the issues in this regard

- Need participatory local planning & targeting the vulnerable communities.
- Lack of institutional capacity of local bodies for pricing and investment.
- Lack of central coordination and monitoring mechanism.
- There is less efforts as the resource seems to be already sufficient to the local bodies

- It is difficult to implement the provisions of Acts related to extraction and processing of natural resources as well as contracting Acts.
- Lack of Investment plan and continued yielding of revenue.
- Problem of compensation to the affected people.
- Lack of national integrated frame on natural resources utilization.
- Lack of understanding of new phenomena, lack of vision and revenue planning.
- Environmental, poverty and disaster concern is not taken seriously.
- Lack of expenditure credibility and transparency.
- Many negative impacts seen: floods, landslides, biodiversity loss, local conflict, vested interests of the local elites, deteriorating law and order situation.
- Lack of localize technology

**He also suggested for further improvement in these issues and gave general as well as technical suggestions. The suggestions are listed in the following points.**

**a. General**

- Need role delineation of different tiers of government under federalism.
- Matching with services to be delivered by the respective tier of the government.
- Linking with overall fiscal transfers and equalization.
- Protection of natural resources and environmental degradation.
- Special local benefits assurance.
- Integration of institution capacity, accountability and financial discipline.
- Deepening democracy and inclusive budgeting at local level.
- Political commitment.
- Understanding the links between climate change and development.
- Compliance of laws and policies.

**b. Technical**

- Potentiality assessment and cost benefit analysis including social cost.
- Vulnerability mapping/Hazard mapping.
- Preparation of land use planning.
- Sectoral framework and coordination.
- Specialized human resources.
- National perspective and monitoring tools.
- Should develop Long-term leasing policy.
- Viable geographical size of local government.
- Adoption of disaster risk reduction technique including earthquake risk reduction in infrastructure development and operation.

The full paper of Mr. Subedi is presented in **Appendix IX**

After these two presentations Lead Commentator Dr. Chandra Mani Adhikari gave his comment. Main comments of the lead commentator are given in the following bullets. First Dr. Adhikari gave the comments on Dr. Koirala's Paper. Dr. Adhikari raised the following issues during his comments on Dr. Koirala's paper.

- We need to be clear about the approach of rural infrastructure development including roads;
- Needs to specify the sources of funding and its modality while designing budgetary framework,

- Need to enforce financial related laws and regulations,
- Need to be aware about the technical and environmental issue and should take initiation for providing technical assistance and capacity development of Local Bodies.
- Need to consider the part operation and maintenance, while planning, designing and construction of roads,
- Include rural infrastructures and their significance in livelihood in the curriculum of school education.
- Develop alternative options for the displaced households, community and groups by employment, income and land, due to rural road constructions,
- Roads should be pro-poor, resource adequacy based, environment friendly, technically viable, risk free, inclusive and market friendly.

The detail of the comments of Lead commentator on the paper is presented in the **Appendix X**.

Dr. Adhikari also commented on the Mr. Som Lal Subedi's paper. Following are the main issues raised by Dr. Adhikari on Subedi's paper.

- Develop the programs related to revenue generation on the basis of plan designed for the conservation, management, exploitation and use with optimum value addition of NRs as per the geographical locations specific strategies as according to the resource mobilization capacity and potentiality of different categories of VDCs in line with proposed federal system.
- Preserve the right of poor while mobilizing revenue and encourage poor for the conservation and preservation of resources,
- Design the revenue policy as per the nature of natural resources
- Consider the intergenerational equity while managing the natural resources.
- Correlate the expenditure functions and revenue assignments with basic functions like Planning, Regulation and Institutional Management.
- Develop policy guidelines, procedures, norms; to avoid policy gaps and conflicts in resource extraction, use, revenue generation and sharing.
- The revenue mobilization from natural resources should be associated with overall development of local government. In this regard the raising revenue should be considered; not only focus on harvesting, but the emphasis should be given to plantation of revenue generation activities, like development of enterprises etc.

The detail of the comments of Lead commentator on the paper is presented in the **Appendix XI**

### **Floor Discussion**

After the comment from lead commentator the floor was open for discussion. Many of the participants actively participated and raised issues. The following are the comments raised during floor discussion by respective participants on the paper presented in this session.

Shailendra Kumar Jha- ILO

- The cost for road construction is very high i.e. **Nrs. 3-4 million** per K.M. Road, hence road should not be constructed haphazardly.
- There is lack of feasibility study while constructing rural roads
- There are many bulldozer road within the country
- DTMP is not yet updated –it may cause problem in road construction.
- Wage rate fixation system harmonized and should make scientific.
- Implement the guidelines for VDC and DDC for the construction and utilization of natural resources.

Narayan Chaulagain –AEPC

- It is not clear how we measure return from rural road?
- The use of vehicles in the rural road may have affected due to other reasons –it is difficult to measure the impact?
- He raised the question whether we measure social or environmental benefits from the road?

Sandesh Hamal- Care Nepal

- It would be better if the paper presenter would have linked the topic with the context of today i.e. how poor's are affected due to different technology of rural road construction.

Dr. Koirala's Response

- The report covered unaccounted cost and benefits and many other issues are also addressed in the full report.

Som Lal's Response

- Function, fund and functionaries should go simultaneously at the local level.
- There is no problem of budget release the problem is in the plan formulation process
- There is a problem of execution of program and policies

After the completion of floor discussion additional two papers related to Alternative Energy and Community and Leasehold forestry were presented. The first paper was about "Alternative Energy Linking Climate and Environment Consideration" and presentation was made by Dr. Narayan P. Chaulagain-Executive Director-AEPC.

In this paper he raised the following issues

- The use of Renewable Energy Technology is relatively low in relation to the potentiality of resources. It is less than 20 percent among all the available capacity of the technology.
- HDI & per capita energy consumption are directly related
- Energy services - proven catalyst for economic and social transformation
- Alternative Energy plays a positive role to achieve MDGs

Dr. Chaulagain explained the role of Renewable Energy Technology on Climate Change Mitigation & Adaption through livelihood improvement of the Poor. In this regard the paper highlights the following role.

- Reduces deforestation, use of fossil fuel & indoor air pollution thus related diseases
- Contribute on GHG emission reduction
- Establishment of micro-enterprises
- Access to information (TV, Radio, Telephone)
- Utilize saved time in IGA & community development
- Saving on regular expenses (energy, health etc) of HHs

- Reduce indoor pollution and improve physical environment of surroundings
- Women empowerment and opportunity for education to girl children

The full paper of Dr. Chaulagain is presented in **Appendix XII**

The last paper of this session was “Community and Leasehold Forestry: Implications for the Poor, Environment and Climate Change” by Dr. Bharat Pokhrel and Peter Branney.

The paper highlighted the following points.

- Policies and practices of Community and Leasehold Forestry are increasingly becoming pro-poor and climate resilient
- There are visible and measurable impact of community and leasehold forestry in reducing poverty and the negative effect of climate change
- For Nepal, MDG goal of reducing poverty is still a national priority and climate change agenda is expected to contribute to that goal
- Pro-poor governance is the key to increase poor people’s access to forest resources and to increase their capacity for climate resilience
- We can learn from multi-stakeholder institutional mechanism in targeting the poor in a coordinated way and landscape approach is the way forward to initiate climate change
- There are nearly 20,000 community groups working for the natural resources management and about 15,000 are community forest user groups.
- This is our social capital. Thus undermining these groups will be counterproductive for the economy and society.
- Community forestry and leasehold forestry have given only use rights and no property rights.
- Without clear transferable property rights there is less scope of protection of natural resources.
- Thus it is necessary to include the concept of property rights over the common property resources within the coming constitution.

The paper also highlighted the practical issues related to climate change and poverty

- Poverty agenda still remains important and it cannot be replaced by climate change agenda until poverty is eradicated
- Climate change adaptation and mitigation measures should contribute to reduce poverty and vulnerability
- ‘No’ livelihood rights’ - possibly no benefit from REDD
- ‘No’ property rights – no possibility of benefit from ‘REDD’
- Property rights of land does not necessarily guarantee the ‘rights over carbon’
- Community and leasehold forestry have high performance but low prospect of benefit from REDD
- Climate change adaptation measures are likely to benefit Nepali farmers more than mitigation measures

### **Recommendations**

- Recognise the contribution of CF and LHF in protecting environment and reducing poverty
- Craft clear policy and legal framework, simple procedures and local level institutional mechanisms to reach the poorest households
- Value multiple functions of forests for both climate change adaptation and mitigation
- Do not divert attention from poverty agenda, instead promote pro-poor governance as the pre-requisite to fight against poverty and climate change

- Reduce the transaction cost of the poor in securing services by recognising the role of local groups as service delivery agencies and local government as coordinating agency
- Focus on building technical capacity of communities for climate change adaptation
- Recognise climate change and poverty as overarching themes that every agency has to contribute to collectively- through multi-stakeholder mechanisms
- Recognise a landscape as a unit of intervention for poverty reduction and climate change

The full paper of Dr. Bharat K Pokharel and Peter Branney is presented in **Appendix XIII**

Prof. Dr. B.N. Tiwari, Lead commentator commented the paper on Community and Leasehold forestry.

He highlighted some issues and challenges in the leasehold and community forestry chief among them include:

Conflict between community and leasehold forestry

With the successful implementation of the Community Forestry Programme in Nepal, the HLFFDP has been implemented. However, after a decade of implementation, it has been realized that there is some sort of conflict between the community forestry and leasehold forestry programmes in Nepal. There are studies suggesting that poverty aspect of the leasehold forestry approach can be included in the community forestry programme. Thus, they suggest that a separate leasehold forestry programme is not warranted.

On the other hand, there are studies revealing that community forestry programme is not pro-poor and is not targeted. Moreover, it does not focus on the economic aspect. Therefore, these studies justify for the HLFFDP, which targets to the poor.

However, as the HLFFDP targets to the poor, there is conflict between those who are the project beneficiaries and those who are not. Using case studies in the middle hills of Nepal, an investigation is made on the interactions between the leasehold forest user groups and the dependent community, which are not included in the programme. It has been revealed that there is a high degree of social conflict between users and non-users, with an increase in forest degradation. Moreover, it has also been found that poor and marginalized people are excluded from the benefits of the HLFFDP.

Forest Policy in favour of Community Forestry

The Forest Policy is in favour of Community Forestry Programme. According to the Forest Act 1993, community forestry gets priority over leasehold forest. There is no legal mechanism to form leasehold forest groups like community forest groups. Moreover, smaller group size formed under the HLFFDP is vulnerable and faces tremendous managerial problems.

With these issues Prof. Tiwari gave following recommendations:

- Both the community forestry and leasehold forestry should complement each other rather than working as rivals
- An effective monitoring of the leasehold forestry is necessary so as to make it an effective pro-poor programme
- Both the community forestry and leasehold forestry can regenerate forest resources whose benefits extend beyond Nepal. Therefore, Government should argue for the larger

grants from other countries for the climate adaptation in view of Nepal' low carbon emission and larger amount of forest resources generated due to the community and leasehold forestry programme.

- Community and leasehold forestry should serve as poverty reduction programme.
- Government should support these two programmes and mobilize communities and their resources for the benefits of the communities and the country.

The detail comments of the Prof. Tiwari is presented in the **Appendix XIV**

## FLOOR DISCUSSION

After the comment from lead commentator the floor was open for discussion. Many of the participants actively participated and raised issues. The following are the comments raised during floor discussion by respective participants.

Mani Nepal- SANDEE

The findings of the household budget survey shows the interesting results i.e. households using improved stoves use more firewood as comfort since it generate less smoke or no smoke. Hence the use of energy increased rather than decrease due to the use of improved technology.

Response from Dr. Chaulagain

Technology does not work properly if it is followed properly in practice.

Dr. Pokharel's response

- Only 30000 households are covered by leasehold forestry and about 80 % of the households with leasehold forestry are also the member of community forestry. Thus it does not make much difference if we discuss the impact combining together.
- Now community forestry learned much from leasehold forestry and it is more pro-poor institution than any other institution in the country.
- Community forestry is an appropriate sustainable development program.

Krishna Gyawali- Secretary MoLD gave his concluding remarks from the chair. Concluding the session Mr. Gyawali highlighted that road planning is already there in the VDC and DDC. Though the DTMP is not being updated properly, Ministry is planning to update in the near future for in all districts. He further added that Ministry is going to revisit the User's Committee Operation Manuel. After approval from the Cabinet it will help for further improvement in the good governance part. He also informed that ministry is preparing the directives for the management of all party mechanism. After the completion of these directives it will be much easier to manage the local development activities. Mr. Gyawali also informed that the ministry is planning to revise the road tax on LSGA from Appendix since it is very old and not practical.

## **List of Appendices**

**Appendix I** List of Participants

**Appendix II** Workshop Program

**Appendix III** Paper on Integrating Environment, Poverty and Green Economy into National Planning Process, By Pushpa Lal Shakya and Mr. Gopi Nath Upreti

**Appendix IV** Paper on Climate Screening, Adaptation Actions, Financing and Policies: Essentials for Improving the livelihood of the Poor By Ganesh R. Joshi and Batu Krishna Upreti

**Appendix V** Upland Poverty Examining Causes and Identifying Solutions By Mr. Raj Babu Shrestha

**Appendix VI** Detail Comment from Prof. Bishwambher Pyakuryal on two papers i.e. paper of P.L. Shaky and the Paper of Raj Babu Shrestha

**Appendix VII** Detail Comment from Prof. B.N Tiwari on the Paper of Batu K. Upreti

**Appendix VIII** Paper on Local Government Expenditure and Rural Roads: Economics of Reducing Poverty while managing climate and environmental risks By Govinda Koirala

**Appendix IX** Paper on Local Government Revenue Raising from Natural Resources: How Better Natural Resource Management Can Increase Local Tax Revenue By Som Lal Subedi

**Appendix X** Detail Comment of Dr. Chandra Mani Adhikari on the paper of Dr. Koirala

**Appendix XI** Detail Comment by Dr. C.M. Adhikari on the paper of Mr. Som Lal Subedi

**Appendix XII** Paper on Alternative Energy Linking Climate and Environment Consideration, Implementation of the Improved Livelihood of the Poor by Dr. Narayan Chaulagain

**Appendix XIII** Paper on Leasehold Forestry and Community Forestry- Implication for the poor environment and Climate Change By Dr. Bharat Pokhrel and Peter Branney

**Appendix XIV** Detail Comment from Prof. B.N Tiwari on the paper of Dr. Bharat Pokharel and Peter Branney