



# Environmental Mainstreaming Initiatives in Nepal



## Environmental Learning and Leadership Group (ELLG) Workshop

### Proceedings of the Workshop

Hotel Grande, Pokhara, Nepal  
20-22 October, 2011

Published by:

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Suggested Citation: Shrestha, P. (Eds) 2011. Environmental Mainstreaming Initiatives in Nepal. Proceedings of the Environmental Learning and Leadership Group Workshop. October 20-22, Pokhara, Nepal.

The opinions expressed in this publication are those of the workshop participant and author and do not necessarily reflect the views of AEMS

# PREFACE

The consortium of Government of Nepal - Ministry of Local Development (MLD), Ministry of Environment (MOE) and Ministry of National Planning Commission (NPC); UNDP/UNEP-Poverty and Environment Initiative (PEI); International Institute for Environment and Development (IIED); Asian Centre for Environment Management and Sustainable Development (AEMS); and Pokhara University jointly organized an Environmental Learning and Leadership Group (ELLG) Workshop on October 20-22, 2011 in Pokhara, Nepal.

The workshop was jointly funded by IIED and UNDP/UNEP-PEI and registered about 29 participants. The workshop brought together an 'Environmental Learning and Leadership Group (ELLG)' of 14 main experts with considerable experience in environment, development planning and/or finance representing government, civil society, local government, academia, social enterprise and private sector.

The main objective of the workshop was to bring together leading expertise and experience in Nepal into a small 'Environmental Mainstreaming Learning and Leadership Group (ELLG)' that will help to shape a 'catalogue' of approaches to environmental mainstreaming that can be built on for the future and an agenda for further progress. The workshop provided an opportunity to share perspectives on progress over approximately 20 years of environmental history in Nepal in integrating environmental issues in policies, plans and investments, identifying success factors and future challenges.

The participants discussed the environment and development linkages in Nepal and the mechanisms, initiatives and factors that have contributed in mainstreaming environment in development planning. The workshop provided a basis for developing an environmental mainstreaming baseline for Nepal, an initial 'catalogue' of best development-environment integration practices, institutions and initiatives with which government, donors, investors and others could work in the future.

Based on the outcome of the workshop and other parallel efforts, AEMS and IIED will develop a public report on environment mainstreaming and a technical report on detailed analysis of environment mainstreaming experience in Nepal using IIED's diagnostic framework. The public report will be published via IIED through its Environmental Governance series and will be launched in suitable place and time.

# ACRONYMS

ACAP	Annapurna Conservation Area Project
AEMS	Asian Centre for Environmental Management and Sustainable Development
CEAPRED	Centre for Environmental and Agricultural Policy Research, Extension & Development
CEDAN	Clean Energy Development Association Nepal
EIA	Environmental Impact Assessment
ELLG	Environmental Learning and Leadership Group
EM	Environmental Mainstreaming
ENPHO	Environment and Public Health Organization
EPC	Environmental Protection Council
FECOFUN	Federation of Community Forestry Users
FNCCI	Federation of Nepalese Chambers of Commerce and Industry
FYP	Five Year Plan
ICIMOD	International Centre for Integrated Mountain Development
IEE	Initial Environmental Examination
IIED	International Institute for Environment and Development
IUCN	International Union for Conservation of Nature
LAPA	Local Adaptation Plan of Action
LIBIRD	Local Initiatives for Biodiversity, Research and Development
MC	Master of Ceremonies
MoEnv	Ministry of Environment
MoLD	Ministry of Local Development
NAPA	National Adaptation Plan of Action
NARC	Nepal Agriculture Research Council
NAST	Nepal Academy of Science and Technology
NCDC	Namsaling Community Development Centre
NCS	National Conservation Strategy
NEFEJ	Nepal Forum of Environmental Journalists
NPC	National Planning Commission
NTNC	National Trust for Nature Conservation
NTNC	National Trust for Nature Conservation
PEI	Poverty and Environment Initiative
SchEMS	School of Environmental Science and Management
SEA	Strategic Environmental Assessment
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
WWF	Worldwide Fund

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# 1. INTRODUCTION

## 1.1 Background

In Nepal, as in almost every country, environment and development have been treated as two very separate agendas, and there is a need for real leadership to bring them together, so that initiatives are mutually supportive. The integration of environment issues into mainstream planning and investment is a challenging task. It will require good knowledge of the Nepal institutional context at many levels from local to international, as well as knowledge of several economic sectors and livelihood systems. It will require several mechanisms to be deployed – not only the formal planning system, but also through e.g. business, civil society and media action. Finally, whilst integration of environment will involve existing approaches that already work in Nepal, it will also need considerable innovation and reflection on the results of that innovation.

All of this suggests the need to pool expertise from different subject areas; reflect on the full range of environment mainstreaming experience to date; adopt innovative approaches; focus on operationally meaningful areas; and ensure learning takes place. Therefore, we are proposing to set up the Environment Leadership and Learning Group (ELLG) in which champions and professionals working in different aspects of environment could be brought together to revitalise existing initiatives and open opportunities for innovations.

The consortium of Asian Centre for Environmental Management and Sustainable Development (AEMS), International Institute for Environmental and Development (IIED), Pokhara University, UNDP/UNEP – Poverty and Environment Initiatives (PEI) and the Government of Nepal consisting of National Planning Commission, Ministry of Local Development and Ministry Environment have established a Nepal Environment Leadership and Learning Group (ELLG) ( Annex 2). It comprises of professionals with considerable experience in environment, poverty reduction, development and finance. The ELLG is an independent body that advises on how to improve and promote the informed inclusion of relevant environmental concerns into the decisions and institutions that drive national, sectoral, city and local development policy, rules, plans, investment and action (i.e. environmental mainstreaming or EM). Furthermore, the consortium organized a three-day workshop in Pokhara, offering the opportunity to reflect over the last 30 years of environmental mainstreaming experience in Nepal. It identified mechanisms that have already been shown to work in Nepal that can be built on, and highlight gaps needing further assessment, analysis and communication. This will help the government as well as donors, investors and others to frame its future efforts to address environmental concerns.

A steering committee (Annex 1) was formed for to help guide and plan the process. The Ministry of Local Development chaired the committee with members representing National Planning Commission, Ministry of Environment, AEMS, UNDP-UNEP PEI, CEDAN and IIED.

## 1.2 Objectives

The purpose and objective of the workshop was to bring together leading expertise and experience in Nepal into a small “Environmental Mainstreaming Learning and leadership Group (ELLG)” that will help to shape a ‘catalogue’ of approaches to environmental mainstreaming that can be built on for the future and an agenda for further progress. It will:

- Identify environmental issues where good outcomes have been achieved
- Identify and discuss mechanisms, initiatives and success factors that have contributed to this progress-notably in mainstream development planning and budget procedures
- Identify areas where progress have been poor and/or where the situation may worsen
- Provide key recommendations for making environmental mainstreaming more effective and systematic in Nepal

## 1.3 Workshop Structure and Process

The workshop was spread over 3 days involving (a) formal opening; (b) introductory presentations; (c) technical session; (d) buzz discussion in group of small participants; (e) case study presentations and (f) formal closure. Dr Barry Dalal-Clayton from IIED together with members of AEMS facilitated the exercises and the sessions and outlined the agenda items for each day.

The workshop activities were carried out in the following manner:

DAY 1:

- Opening and inaugural session,
- Introduction of the programme
- Presentations on the concept of environmental mainstreaming
- Presentation on the status of environmental mainstreaming in Nepal

DAY 2:

- Drivers of environmental mainstreaming in Nepal,
- Presentations on successful cases of mainstreaming environment in Nepal and the environment-development constraint/challenges

DAY 3:

- Key recommendations for making environmental mainstreaming effective in Nepal,
- Follow up and
- Closing

**Day1**  
**(Oct.20, 2011)**

Opening, inaugural session, introduction of the programme and presentations on the concept of environmental mainstreaming and status of environmental mainstreaming in Nepal

## 2. OPENING / INAUGURATION

**Ms Pujan Shrestha, Research Officer at AEMS** was the MC of the inaugural session of the workshop. Welcoming the participants to the workshop, Ms. Shrestha briefly explained that the three day workshop has brought together all the key experts who have contributed in their respective field in integrating environment in development and planning initiatives in Nepal. She was delighted that the workshop provided an opportunity to learn and share from each other.



She initiated the formal inaugural session of the workshop by inviting the key guests on the dais who then addressed the audience and the participants in following order. The inaugural ceremony was chaired by Prof Dr. R B Khadka, Chairman, Environmental Management Subject Committee, Pokhara University. Prof Dr. Khagendra Prasad Bhattarai, Vice Chancellor, Pokhara University was the chief guest of the session. Other guests and speakers of the inaugural ceremony were Mr Shailendra Guragain, Executive Director, AEMS; Dr Barry Dalal-Clayton, Sr Fellow, IIED; Mr Arjun Thapa, Local Development Officer, Kaski District; and Dr Om Sharma, Registrar, Pokhara University.

**Welcome by Mr Shailendra Guragain, Executive Director, AEMS** welcomed the chief guest, chairman, participants and all the; guests to the workshop on behalf of AEMS and joint organizers.



He said that the rapidly degrading natural resource base and poverty issues in Nepal suggest the necessity to review our environmental mainstreaming initiatives. He emphasized that there has been growing concern and awareness about environmental issues in Nepal over the years as evidenced by an increasing number of commitments to improve the country's environment. According to him, the workshops will an opportunity to discuss about those commitments and to propose a way forward. He urged all the participants to coordinate in the workshop in order to ensure effective environmental management in Nepal.

**Remarks by Dr Om Sharma- Registrar, Pokhara University** expressed his gratitude to the chief guest and the organizing committee. Dr Sharma further highlighted the importance of environment and nature to the human kind. He said we have to realise that our environment is handed over to us unaltered by our ancestors and it is the responsibility of present generation to understand, nurture and care their environment in similar ways. He expressed his appreciation for





organizing this workshop, and assured that Pokhara University will stand behind this endeavour not just only for this workshop but in the future endeavour too.

**Mr Arjun Thapa, Local Development Officer, Kaski District Development Committee**

thanked the chief guest and the organizing committee. Mr. Thapa was delighted that the Ministry of Local Development (MoLD) was one of the main partners of the workshop. In his remark, Mr Thapa stressed on the gap that exists between the policy formulation and its implementation in Nepal. He further articulated that although some efforts have been made in considering environment during development activities for example by conducting EIA/IEE studies, he believed that those efforts are not just enough. He explained that in Nepal the national budget is usually spent only at the end of fiscal year and the entire budget is erratically spent for development and construction activity without giving enough time and proper consideration to the environment. Therefore he believed, there is still lack of enough understanding of the environment in planning works and urged everyone to convey their knowledge in undertakings such as this workshop



**Prof Dr. Khagendra Prasad Bhattarai, Vice Chancellor, Pokhara University** inaugurated the workshop by lighting the traditional lamp. Prof Bhattarai expressed his delight to be part of it. He underscored the fact that environmental problems are not just national but local in nature and there are direct implications in the people's life from the transboundary nature of the environment. He expressed that the rapid pace of development, industrialization, urbanization and nuclear expansion etc have had enormous negative repercussion to the environment. He believed that our life style have become more convenient at the cost of the environment. He noted that it's not possible now to go against development but felt people have to be serious enough so that there is right balance between environment and development and the nature is not exploited.



He highlighted that Pokhara University is committed to its share of protecting the environment by designing graduate and under-graduate courses in environment so as to prepare skilled human resources that impart knowledge and can contribute to protect and manage the environment. Finally he congratulated the organizing committee for holding the workshop and said that it had done a commendable job by bringing together experienced environmental experts from different sector in one common platform. He hoped that the discussion that will take place in the workshop will define the future of environmental initiatives in Nepal. He urged the participants to give concrete suggestions during the workshop so that the government, donors and others can build on it in the future.

**Dr. Barry Dalal-Clayton from IIED** presented the purpose, structure and the modality of the workshop. He explained the term environmental mainstreaming and elaborated why mainstreaming the environment is important for sustainable development and achieving a green economy. He stressed the fact that integrating environment into development has never been more urgent and it is high time that there is informed inclusion of environmental concern into the decisions at various national sectoral, city and local plans, rules and actions.



He informed that Environmental Mainstreaming Learning and Leadership Group is one of the initiatives of IIED with similar experiences and approaches used in Malawi, Botswana, Philippines, Tanzania, Zambia and Vietnam. Dr. Clayton then explained the aim of the ELLG and its working modality. He pointed out the aim of the workshop as follows-

- Identify current best practices for integrating environment issues into mainstream development planning procedures, institutions, academic courses and investments in Nepal, and their results;
- Identify the 'hot issues' e.g. biodiversity vs. hydropower, or conservation vs. tourism, where environment and development issues urgently need better reconciliation;
- Propose ways to improve the scale-up of effective integration approaches, and to develop new/improved approaches;
- Link together previously isolated existing leaders in environment-development linkages;
- Engage with the government as a leadership group on linking environment and development, addressing opportunities and needs e.g. to construct a 'green economy'.

He said that the entire process essentially entail 4 important steps-

1. First step included formation of Steering Committee with representation from Ministry of Local Development (Chair); National Planning Commission; Ministry of Environment; UNDP/UNEP-Poverty and Environment Initiative (PEI); AEMS; Pokhara University and IIED. AEMS facilitated the process and act as the Secretariat for the Steering Committee. The Steering Committee then identified approximately 15 key leaders or 'champion' (current participants of the workshop) engaged in environmental mainstreaming in its different forms in Nepal over the years to participate in the workshop.
2. Second step involved preparing a stocktaking 'background paper' and a 'diagnostic analysis of environmental mainstreaming experience' by AEMS. The background paper (Annex 4) which was provided to the workshop participants beforehand is a short scene setting paper on the environmental mainstreaming efforts that have been done and achieved in Nepal over the years. Parallely, AEMS will be preparing a more detailed research paper using the IIED diagnostic tool (a set of questions and framework prepared by IIED for assessing environmental mainstreaming efforts) to assesses the progress, approaches, institutional structures and procedures for environmental mainstreaming performance in Nepal.
3. The third step involved the current workshop participated by the key experts identified in step 1 who would discuss the drivers of environmental mainstreaming; analyze successful cases; identify new challenges and suggest an agenda for future action.
4. The final step will be the outcome of the entire process including the dissemination of information collected through the publication of an easily digestible report that will have collective authorship. IIED/AESM will prepare the draft and the Steering Committee and ELLG will review the draft and contribute materials/cases. The final report will be published in IIED Environmental

Governance series in association with Nepali participating institutions and will be launched in suitable place and time.

**Prof Dr RB Khadka, Chairman, Environmental Management Subject Committee, Pokhara University** acknowledged all the guests. Prof Khadka pointed out that has been nearly 30 years that the concept of environment was introduced formally in Nepal's planning process and now it is time to review those experiences. He further said that Pokhara University with SchEMS were the pioneer in introducing environment in university



courses in Nepal. He suggested the urgent need reconsider all the initiatives of environmental mainstreaming that can scale-up the effective integration approaches and to develop new and improved approaches. He also highlighted his ambition to expand the initiatives to the Asian continent through AEMS network. He articulated ELLG workshop will be a central resource for that challenge and urged the members to participate in the deliberations with the view to enhance the performance of the workshop. The chairman finally sealed the inaugural session by thanking all the guests and participants for attending the inaugural ceremony and the workshop.

## 3. TECHNICAL SESSION

### 3.1 Participant Introductions

The technical session started with brief self-introduction of the participants on their own background and issues of each participant (Annex 2).

### 3.2 Presentation 1: Experience worldwide of 'Environmental Mainstreaming' by Dr Barry Dalal-Clayton, Sr. Fellow, IIED

The chair of the technical session, **Dr Barry Dalal-Clayton** delivered a presentation on worldwide trend and status of the environmental mainstreaming (EM). His presentation discussed mainly (a) main components of the EM, (b) necessity of the EM, (c) aims of the EM, (d) different entry point and tactics of the EM and (e) drivers of the EM.



He highlighted the global environmental trend and said that rapidly growing economic activity is breaching the ecological limits characterised by loss of biodiversity, deforestation, soil erosion, pollution and climate change. He explained that the nature of environment which is unpredictable, unpriced, uncertain makes it still an externality in decisions. He said, throughout the world the political economy of the environment is weak as the environment and development institutions are separate and finance still dominates the development agenda. He stressed that integrating environment into development policy, planning and development has never been so urgent and even the donors are demanding EM which is one of the key drivers of EM. The donors focus on SEA, country systems and climate change integration demonstrate increasing demand of EM in the international agenda.

Dr Clayton elaborated the definition of EM as developed by IIED 2009, which is '*the informed inclusion of relevant environmental concerns into the decisions and institutions that drive national, sectoral, city and local development policy, rules, plans, investment and action*'. He further outlined benefits of EM as-

- Improved awareness of environment
- Improved information base on environment
- Improved participation and voice on environment
- Improved policy, law, plan, strategy on environment
- Improved capacity to address environment
- Improved budget and finance to tackle environment
- Improved environmental conditions

He noted the various entry points for EM which include government and non-government authorities; environmental and development authorities; existing and special decision making framework; upstream and downstream initiatives (e.g. plan and projects); and national and sectoral level programmes. He explained the various tactics for mainstreaming including-

- Language- e.g. by speaking development rather than no growth and by talking about economics rather than pure environmentalism
- Focusing- on financial decisions such as presenting the cost, benefits and risks of environmental integration

- Attitude- highlighting the positive outcomes and enabling conditions than only negative safeguards
- Authority- including public opinion to strengthen ownership

He pointed the major drivers of EM which include increasing stakeholder awareness and demands; national rules and regulations; value of progressive organizations and the donor conditions. He said that other factors such as international commitments; major environmental disasters; traditional values and culture; desire to address rising poverty and equality are equally important. He also highlighted the main actors in EM which include environmental organizations such as regulatory authorities, NGO, civil societies and mainstream development organisations such as sectoral agencies, corporations and delivery organizations.

Dr. Clayton articulated that there is no single approach or style of the EM and it depends of range of factors like policy framework; governance mechanisms; actors' involved; and country, sector and case specific issues. He explained some prevalent approaches that could involve-

- Broad tactics (ways of raising issues and making a case/getting heard, e.g. campaigns, lobbying)
- Promoting/enabling institutional change (strategic level approaches);
- Specific (more micro) instruments, technical tools and analytical methods (e.g. for gathering information, planning and monitoring);
- Methods for consultation and engaging stakeholders; and also
- Range of more informal, voluntary and indigenous approaches

He mentioned that a range of tools like Environmental Impact Assessment; Cost Benefit Analysis; ISO standards, Strategic Environmental Assessment; Geographic Information Systems; Environmental audits are widely used to achieve environmental mainstreaming. Dr Clayton concluded his presentation by discussing the key constraints for environmental mainstreaming which include lack of political will, lack of awareness, lack of funding, lack of skills and many more issue specific barriers.

### **3.3 Presentation 2: Environmental Mainstreaming in Nepal: An overview of initiatives and experiences by Mr. Ajay B Mathema, Director, AEMS**

**Mr Ajay B Mathema, Director, AEMS** made the presentation of the background paper titled "Environmental Mainstreaming in Nepal – An overview of initiatives and experiences" (Annex 3). This presentation intended to coin the concept of the environmental mainstreaming in Nepalese context, and give an overview on Nepalese experiences in it. This background paper was jointly prepared by Mr Ajay B Mathema, Prof Dr R B Khadka, Ms Pujan Shrestha, and Prof Dr Anand Raj Joshi.



Mr Mathema started his presentation by highlighting the fact that although environmental protection works were initiated almost half a century ago and most of the governments have expressed their commitments in different international forums, the global environmental indicators are continuously tracking negatively. Similar situation can be seen in Nepal.

He explained that over the years, Nepal undertook numerous efforts to address the environmental issues. Some of the important efforts were community forestry to manage and protect the forest resources; conservation of biological diversity with protected area systems; and Environmental

Impact Assessment to safeguard environment from development works. He argued that though the results of those initiatives can be debated, they are, however, intricately integrated into the governance of Nepal as well as accepted widely by the society.

He further raised a question if we have to adopt the concept of environmental mainstreaming in Nepalese context, how would we measure our success or failure in the environmental mainstreaming initiatives. He proposed the following factors for this purpose to be debated in the workshop:

- a. Acceptance at the policy level or initiated by the national Five Year Plan (FYP) of Nepal
- b. Enactment of environment related legislation
- c. Establishment and/or strengthening of institutional arrangements
- d. Availability of human resources and capacity-building
- e. Undertakings, projects and activities to support the environmental mainstreaming initiative
- f. Participation in the initiative of private, public sector and NGOs
- g. Research undertaken
- h. Political willingness/ high level commitment towards environment related works

He noted that EM in Nepal was initially driven by its commitments made in the international forums such as Stockholm Conference, 1972 and the Earth Summit, 1992. The international obligations initiated a new vision for the integration of environmental components in national plans and policies of Nepal and it subsequently translated into the concepts of sustainable development in Nepal's policies and strategies.

Mr. Mathema further explained the trend of integrating environmental concern into planning documents of Nepal. The concept of 'environment' and its protections slowly evolved in the context of national planning in Nepal mainly from sixth FYP (1980-1985). Subsequently all the following national five year plans then laid out framework and developed plans and programs emphasizing conservation and management of environment. The environmental legislation was enacted, national environmental standards were set, institutions were strengthened, environmental impact study was made mandatory and long-term goals of environmental management with better governance, pollution control and sustainable use of national resources were eventually introduced.

He also highlighted the institutions at various national, local, private and community level that have played an important role in designing and influencing environmental performance over the years in Nepal. Finally he discussed that although the government has formulated comprehensive set of policies, plans and programmes aimed at mainstreaming environment, their effectiveness has been below expectations and the quality of environment hasn't actually improved. He proposed the several reasons for ineffective mainstreaming in Nepal as follows

- a. Inadequate fulfillment of international obligations
- b. Inability of policy-making institutions to implement policy
- c. Lack of adequate resources
- d. Inadequate environmental information
- e. Political willingness/ or disturbance

Mr. Mathema concluded his presentation by arguing that for the EM to be effective in Nepal, it has to permeate all phases of decision making, planning, execution, and management of environmental matters. Participants were urged to think what an effective environmental mainstreaming in Nepal would entail.



## Discussions

- Participants commented that although the government and politicians are usually blamed as one of the reasons for ineffective mainstreaming of environment, the **'market' also plays an important role in destroying the environmental resource base in Nepal**. Example of bottled drinking water supply was cited. There is good market in Nepal at the moment for distributing drinking water in bottles and jars. Though the market is fulfilling the need of the society, it is also equally destroying the environment by over-drawing the ground water for that purpose. Therefore, it is not government or any institution but infact the market, which has been responsible for destroying the environmental resource base.
- Concerns were also raised about the **'cross-border' issues** such as water, air as being some of the factors that determine the effectiveness of EM initiative in Nepal. Similarly, **'conflict'** was pointed out as another important reason for environmental destruction in Nepal. For example, due to conflict many people have migrated and many have settled near river bed extracting materials for construction thereby threatening the river system.
- Some participants felt that there is lot of blaming on the role of government and politicians but the academicians, researchers also have equal share on it. This is because, it is **academician and researchers** who identify the problems and make recommendations; government only take those suggestions and implement it. The fundamental problem lies in understanding of the problems. If the scholars would understand the **root-cause of the problem**, right recommendations would have been made, right agenda would evolve and subsequently the government would have supported the right choice.
- Comment was made to also include the **'behavioral aspect of all the actors'**. This is important because an actor might be committed to his task on his own but his behavior could change whilst in group. Therefore in any mainstreaming efforts, it is important to study the behavioral aspects of the actors involved. One needs to examine individual cases and specific issues sector by sector and stakeholder by stakeholder; only then full picture can be understood.
- Few participants also felt that the topic of environmental mainstreaming has not yet been **much debated** in academics, business and politics. This is first time that the professionals were being invited to talk and reflect on this issue. They were positive that by the end of the workshop, they would have discussed, shared and understood the concept of environmental mainstreaming in all its form.



## 4. BUZZ DISCUSSION

### Exercise 1: Environment and Development Linkages

The participants were divided into 5 groups to discuss and report back on “to what extent are environment and development actors and agendas separate in Nepal”.

#### Discussions

The working group brainstormed and identified range of issues in the environment and development linkages. The issues discussed by the working groups are as follows.



The environment and development actors and agendas are separated in Nepal because-

1. There is inadequate human resource- the actors are not trained therefore their agendas are different and the actors are separate
2. Environmental professionals are in wrong place- many times people with responsibilities are not familiar with what they are doing
3. There is emphasis on legislation formation with no proper implementation mechanism – environmental actors formulate policies and legislations for environment, but the developmental actors are not interested in its proper implementation, therefore the mainstreaming goes in wrong direction
4. Institutional arrangements are not coherent- developmental actors are trained in different ways, therefore in the planning process, environment is not well integrated
5. There is limited resources-human, technical and financial-for environmental actors than to the developmental actors
6. The agenda for the developmental actors are the responsibility of their institutions i.e. to provide service to the people whereas the agenda for the environmental actors are enhancement and maintenance of the environmental asset
7. In case of environmental works, level of awareness is minimum and the outputs and outcomes are uncertain, less proven with uncertain economic returns whereas in developmental works, level of awareness is high and the outcomes are more certain, proven with certain economic returns
8. The number of developmental actors and their agenda are more compared to environmental actors and their agenda and their overlap is minimal
9. Environment is an agenda of common people whereas development is the agenda for bureaucrats



## Exercise 2: Who is driving environmental mainstreaming, and for what purpose?

The participants were divided into 3 groups to discuss and report back on-

- What are the institutions/ initiatives that address environmental concerns (e.g. specific government bodies, local government, business, public, community, media, donorsetc)-currently and in the last 20 years?
- What issues they address, what they do and where the gaps lie?



### Discussions

The working group brainstormed and identified range of institutions, their roles and their challenges. The following tables show the things discussed by the working groups.

Table 1: Institutions that addressed environmental concern at present and in the past

S.N	At present	In past
<b>1</b>	<b>Government Organization</b>	
	Ministry of Environment Line ministries	Ministry of Population and Environment Ministry of Environment, Science and Technology
	National Planning Commission	National Planning Commission- Environment Section
	Environmental Protection Council (not functional at present)	Environmental Protection Council (functional)
	Proposed 'Environment Bench' in Judiciary	Department of Soil Conservation- Environment Unit
	Climate Change council	
	National Agriculture Research Council/ National Academy of Science and Technology	National Agriculture Research Council/ National Academy of Science and Technology

<b>2. Local Government</b>	District Development Committee- Environment and Energy Unit Municipalities/Metropolis- Officer Agriculture and Environment Committee at VDC levels	<i>Sarsafai Adda</i>
<b>3. Private Sector</b>	FNCCI-Environment Unit Industry and Business houses	Non-existent or not-known
<b>4. Non-Governmental Organizations</b>	NEFEJ FECOFUN LIBIRD NCDC CEAPRED ENPHO	NEFEJ FECOFUN    ENPHO
<b>5. Community Organizations</b>	Traditional Guthis NTNC ACAP Community Forest Groups	Traditional Guthis KMTNC ACAP Religious Forest Group (Rani Ban, Kuldevata)
<b>6. Academia</b>	Educational Institutions (schools, colleges, Universities) Research organizations Training centers	Tribhuvan University- Central Department, IOF, IAAS
<b>7. International Non-Governmental Organizations</b>	UNESCO UNEP WWF Practical Action ICIMOD Etc	IUCN Care Nepal WWF ICIMOD SDC
<b>8. Media</b>	Radio (FM, Radio Nepal, Radio Sagarmatha)  Television Mass media/ Print	Radio Nepal (Bhanjyang Chautari, Aakhijhyal)
<b>9. Art and Culture</b>	Musical Association Drama groups Fine Arts Groups	Not known

Table 2: Institutional Concerns and Gaps

S.N.	Institutions	Concerns	Gaps
1.	Government Organization	<ul style="list-style-type: none"> <li>• Policy mainstreaming</li> <li>• Ensuring sustainability in Environment and Development</li> <li>• Conservation</li> <li>• EIA implementation</li> </ul>	<ul style="list-style-type: none"> <li>• No matching funds for plan and programmes</li> <li>• Weak Monitoring and Evaluation</li> </ul>
2.	Private Sector	<ul style="list-style-type: none"> <li>• Industrial pollution control</li> <li>• Economics based</li> </ul>	<ul style="list-style-type: none"> <li>• Profit oriented</li> </ul>
3.	NGOs	<ul style="list-style-type: none"> <li>• Ensuring environmental and social safeguard</li> <li>• Sustainability focused</li> </ul>	
4.	Community Organizations	<ul style="list-style-type: none"> <li>• Conservation</li> <li>• Rational use of resources</li> </ul>	<ul style="list-style-type: none"> <li>• Lack long term commitment</li> <li>• Donor driven</li> </ul>
5.	Academia	<ul style="list-style-type: none"> <li>• Knowledge generation</li> <li>• Education</li> </ul>	
6.	INGOs	<ul style="list-style-type: none"> <li>• Driving policy, programme, projects</li> </ul>	<ul style="list-style-type: none"> <li>• Scattered investment</li> </ul>
7.	Media	<ul style="list-style-type: none"> <li>• Information and communication</li> <li>• Awareness generation</li> <li>• Sensitization/exposure</li> </ul>	<ul style="list-style-type: none"> <li>• Negativity (one sided view)</li> </ul>
8.	Art and Culture	<ul style="list-style-type: none"> <li>• Awareness generation</li> </ul>	

## 5. CASE PRESETATIONS OF SOME NEPALI ENVIRONMENTAL MAINSTREAMING INITIATIVES

### Case1: Annapurna Conservation Area Project (ACAP)

**Mr Lal Prasad Gurung, Project Director of ACAP** informed that ACAP is the largest protected area in Nepal. Mr Gurung said that ACAP has successfully implemented new paradigm for protected area management based on Integrated Conservation and Development Programme (ICDP) model. He explained that the goal of ACAP is conservation of biodiversity, natural and cultural values of Annapurna region within the concept of sustainable development. The guiding principles of ACAP are



- Ensure effective participation of local people including socially excluded and women groups,
- Act as a catalytic agent in linking national and international agencies to avail proper resources, and
- Ensure sustainability by initiating only those projects which local people can sustain even after the external resource is withdrawn

Mr Gurung outlined the programmes and activities of ACAP, which are focused in the areas of (a) natural resource conservation; (b) promotion of alternative energy; (c) tourism management; (d)

conservation education; (e) community infrastructure development; (f) agriculture and livestock development; and (g) gender development and cultural heritage conservation.

Mr Gurung concluded his presentation by discussing the challenges/issues faced by the ACAP such as –difficulty to deliver services due to inaccessibility to the remote areas; government, community and private sector led project like hydropower development and road construction without proper EIA study might threaten biodiversity conservation of the region, and difficulty to manage tourism because of the increasing numbers of tourists in the region.

## Discussions

1. The participants raised their concern on how is the **waste water and solid waste** generated by the hotels and tourists in the regions are managed. Mr Gurung informed that ACAP has established check posts to monitor/ensure that the disposable items such as plastic bags, water bottles, wrappers brought in by the tourists are brought back on their way back. In addition, the local 'mothers group' are active in the area. These groups collect the wastes from the region to sell these in Pokhara to *Kabadis (waste dealers)*. However there are only limited number of such checkpoints or waste collection centre, but efforts are underway to increase their number. For the waste water management, the tourist management sub-committee consisting of local hotel and tourism entrepreneurs monitor if the hotels have built the safety tanks for the hotel toilets. However, few instances of wastes water being discharged directly to streams and rivers were also reported.
2. The participants also inquired on the **use of firewood** for cooking in the ACAP region, particularly at hotels. Mr Gurung informed that almost all of the hotel and majority of household use kerosene and Liquefied Petroleum Gas (LPG) for cooking purpose. Infact people favored LPG over firewood because it would last longer and turned out to be a cheaper option. ACAP distributed improved cooking stove (that uses kerosene) with 50% subsidy, hence, its demand is increasing too. Some households are also using bio-gas for their cooking purpose. Thus, firewood use in ACAP region is minimal.
3. Participants also inquired if ACAP is making effort to share its achievements/best practices with general public through popular media. Mr Gurung informed that **ACAP has a media department** that disseminates information on nature and culture conservation. ACAP regularly organizes competitions on conservation poem and song. Furthermore, ACAP has also published compilation of conservation poems entitled '*Thorang lama samrakhchankabita*'. Some participants also suggested that popular singing artists could also contribute in disseminating the message of conservation through songs.



## Case 2: National Conservation Strategy (NCS)

**Dr. Shreegovind Shah, Expert on environmental planning** made a presentation on Nepal's initiative to adapt world conservation strategy in the form of National Conservation Strategy (NCS) in Nepal. The NCS came into force in Nepal in 1987 in response to Nepal's endorsement of World Conservation Strategy, 1980. The NCS was based on the guiding



principles of (a) wise use, (b) protection, (c) preservation and (d) restoration of the nature and the environment. The main objectives of NCS were:

Ensure sustainable use of Nepal's land and renewable resources

- Preserve the biological diversity and enhance its productivity and production
- Maintain essential ecological and life support systems e.g. protection of water and air, soil regeneration etc
- Satisfy the basic needs of the people of Nepal, both present and future generation; designed to support Royal directives on Basic Minimum Needs by 2000.

Dr Shah articulated that the NCS provided sectoral analysis of natural environment and proposed several vanguard programmes for all the geographical areas of Nepal. Its programmes were implemented by many institutions and stakeholders. The major programmes of the NCS were as follows:

- Environmental education and communication- e.g. environmental education courses developed at school and university levels;
- Environmental Impact Assessment- e.g. development of national system of environmental assessment; national EIA guidelines; network of environmental core group;
- Environmental Planning- e.g. conscious inclusion of environment conservation and management in national five year plans; preparation of Nepal Environmental Policy and Action Plan (NEPAP, 1993);
- Environmental Law- e.g. enactment of Environmental Protection Act and Regulation, 1996/1997; and
- Heritage Biodiversity Conservation- e.g. national register of heritage sites; habitat classification; biodiversity database.

Dr Shah argued that NCS put foundation for the environmental mainstreaming initiatives in Nepal. Finally he discussed the constraints for implementation of the NCS, they were:

- Inconsistencies with environmental requirements supported by the donor agencies;
- Omitted investment in environmental restoration and management in terms of economic returns;
- Dormancy of Environmental Protection Council; and
- Climate change issues were not addressed by the NCS.

## Discussions

1. The participants raised their concerns whether the NCS still has **relevance in the present context** as it was formulated more than two decades ago. The priorities have changed, for instance the climate change issues have emerged as an important issues. Dr Shah agreed that the NCS was a snap-shot intervention, and its continual updating has not been done. However he believed that the basic principles coined by the NCS such as conservation; priority to fragile ecosystem; public participation are still relevant.



2. Some participants also argued that the NCS was formulated with the **“Top-Down” approach** thus doubted its validity at present context with **“Bottom-Up” approach**. Dr. Shah defended this with an argument that the NCS was not a Top-Down approach rather it readily adapted participatory approach with extensive public consultations and involvement of stakeholders/institutions at all level, for e.g. about 1200 rural institutions were consulted.
3. Some participants were eager to know why ministry of environment (then MOPE) was established then when an **environmental unit** was already existent in NCS. Reaction to the inquiry was that

it was a political decision to have a separate ministry of environment and the donor's had also supported the idea.

### Case 3: Environmental Impact Assessment (EIA)

**Mr Bhairaja Manandhar, senior divisional engineer at Ministry of Environment (MoEnv)** made the presentation on integration of the EIA system in Nepal's development planning process. The 6<sup>th</sup> Five Year Plan (FYP) of Nepal mentioned the necessity for environmental consideration of developmental activities for the first time. Subsequently the 7<sup>th</sup> FYP, policy declared that environmental conservation and pollution control works shall be considered while executing physical development activities (infrastructure and industrial projects). The 7<sup>th</sup> FYP also initiated the National Conservation Strategy for Nepal, which laid the foundation for institutionalization of the EIA system.



Mr Manandhar also informed that 8<sup>th</sup> FYP was able to achieve significant milestone for institutionalization of EIA. Firstly Environmental legislation was enacted which made EIA mandatory for major developmental works. Furthermore, sectoral EIA guidelines were also prepared which eased the implementation EIA studies. The monitoring of evaluation, however, is the weakness of the EIA system in Nepal. The 10<sup>th</sup> FYP made provisions to bring effective monitoring and evaluation of projects. Mr Manandhar further highlighted that the 3 year interim plan aims at the institutionalization of environmental monitoring and auditing through an effective implementation of the approved EIA reports.

Mr Manandhar argued that although EIA system is mainstreamed in the government's mechanism, and also adapted by the public and private sectors; it's contribution to environmental protection is still nominal. One of the reasons for this is weak institutional capacity of the Ministry of Environment and the line agencies. He highlighted some of the major issues specific to successful mainstreaming of EIA system as follows-

- Lack of elaboration of public hearing procedures,
- absence of prescribed time frame to be spent for the scoping exercise and TOR preparation,
- absence of prescribed minimum time to be spent for the IEE/EIA study
- Prescribed format for EIA/IEE reports are not clear and systematic
- Validity period of approved TOR and EIA/IEE reports are not specified
- No clear technical rationale behind threshold values set for screening proposals for EIA/IEE
- The quantum of fine/penalty for non-compliance is insignificant

#### Discussions

1. The participants inquired if there are **inter-institutional conflicts** that affect implementation of the EIA system in Nepal. Mr Manandhar informed that there is conflict in priorities of the stakeholders involved in the EIA system. The private sector/developers are concerned for their investment, thus are interested to minimize the importance of EIA.
2. The participants also raised their concerns about small scaled road constructions that are rapidly being undertaken all around the country. Because of their scale, IEE or EIA is not a requirement, however, their cumulative effect can be disastrous for the environment. Mr Manandhar expressed necessity to bring in the concept of the **cumulative impact** within environmental legislation to



address this issue. Furthermore, Dr Khadka and Dr Clayton emphasized on necessity of applying **Strategic Environmental Assessment (SEA)** in Nepal to address these issue. They emphasized that if SEA is done at higher strategic policy level; the problems downstream at project level while doing EIA will be considerably minimal. They gave perspectives of application of SEA from other countries such as India, Bangladesh, and Bhutan and stressed that it's high time that SEA is done in Nepal as well. They were confident that if SEA is carried out at the higher level for the policies; there will be several favorable choices for environmental conservation and management downstream at the project level. All other participants equally felt the importance and necessity of SEA in Nepal.



3. There were proposition that **EIA is being attacked at all levels**. If such attacks continue, there is possibility that the EIA system might collapse and we might lose what we already have.
4. A question was raised about the EIA of Hetauda Waste Water Treatment Plant which was constructed around 5 years ago. The project was supported by Danish government and EIA had been conducted that considered several environmental issues and prescribed suitable mitigation measures. The construction was done by the Danish construction company however not all of the mitigation measures prescribed by the EIA were implemented. When asked about it, the Danish construction company replied that the implementations of mitigation measures were not their responsibility and hence lot of environmental issues were left undealt. In such case, whose is responsible to ensure implementation of the mitigation measures. Mr Manandhar told that the proponent (in this case Ministry of Industry) has to ensure that the mitigation measures are adequately addressed and the **proponent** should have convinced the donors for the proper implementation of EIA.
5. Participants were curious that since the Ministry for Environment has been **reshuffled** so many times in the past and now that it is a super ministry, what the current situation of EIA implementation is. Response to the comment was that even though the ministry has been reshuffled many time, the implementation of EIA together with monitoring and evaluation aspect have not been changed at all.
6. Participants raised concern also about the quality of the EIA report. They wanted to know **who (individual/ institution) is qualified to conduct EIA and what are the eligibility criteria**. Reaction to the concern was that at present there are no such eligibility criteria. But a system of EIA Professional Registration Scheme is being developed, which will specify the necessary qualification, training, and also the capability of institution or individuals.
7. Concerns were raised regarding the **capacity of the Ministry of Environment**. The participants strongly believed MoEnv has to urgently upgrade its capacity to handle increasing number of EIA studies.

## Case 4: National Adaptation Plan of Action (NAPA)

**Dr Dipak Kumar Rijal, Climate Change Expert for Local Adaptation Program of Action (LAPA)** made a presentation on the National Adaptation Plan of Action (NAPA) and Local Adaptation Plan of Action (LAPA). These are the recent response of Nepal to the threats imposed by the climate change. He started by showing the climatic trend in Nepal over the years and the current and likely impacts of climate change to the society. He emphasized that climate change is undermining development initiatives and is increasing the variability and uncertainty.



He highlighted that NAPA/LAPA can be government's mechanism to ensure effective and timely delivery of adaptation services to climate vulnerable people of Nepal. He said that the broader objective of NAPA is to mainstream climate change concern into the development plans by reducing poverty, strengthening livelihoods and building resilience to climatic variables.

Dr Rijal argued that climate change concern is being mainstreamed into the government's decision through-

- Institutional response.g. Climate Change Council, National Planning Commission, other climate change units, divisions, sections and centers,
- Policy response.g. formulation of climate change policy, environmental laws and bylaws, and
- Program response.g. REDD for mitigation, clean development mechanisms; LAPA/NAPA for adaptation

He further stated that NAPA/LAPA formulation has been truly a bottom-up approach, which involved extensive consultation at local, regional and national level. The process has ensured coordination and collaboration with the existing mechanisms and initiatives. The pilot programmes are being initiated at the local level.

Dr Rijal further articulated that proposed NAPA/LAPA framework fits well into existing planning process and the planning and service delivery mechanisms has been established through the mobilization of local institutions and resources.

He concluded his presentation by discussing the challenges of NAPA/LAPA initiatives:

- necessity of capacity building of key stakeholders,
- necessity policy and guidelines responsive to climate change issues including the funding, and
- necessity of human resources to manage increasing responsibilities and mandates.

### Discussions

1. Participants wanted to know whether LAPA was the only action plan at the lowest level of the government or if there are any **CAPAs** (Community Adaption Plan of Action) as well. Reaction to the inquiry was that LAPA is the only national framework endorsed by the lower administrative unit of the government such as Village Development Committee and District Development Committee.





2. Concerns were raised whether **capacity of the local institutions** such as VDC/DDC are being strengthened to address the LAPA. Reaction to the concern was that the LAPA framework has the provision for institutional capacity building. About 20% of the total budget will be spent for this purpose.
3. Question was raised on how NAPA/LAPA reached **household and individual levels** during its formulation. DrRijal said that the NAPA/LAPA framework entailed reaching up and down through regional consultation workshops and by involving local leaders in planning which led to certain level of sensitization at the individual/household level.

## Case 5: Brown Sector EM initiatives

**Dr.Uttam Kunwar faculty member of SchEMS, Pokhara University** presented the environmental mainstreaming initiatives of private and industrial sectors in Nepal. He started by giving brief background of industrial sector in Nepal. Dr Kunwar told that there have been several interventions for the industries over the years to incorporate environmental concerns in their production process and services. For example, at institutional level, several institutions such as



Ministry of Industry, Industrial Promotion Board (IPB), Department of Cottage and Small Industries (DCSI), Nepal Bureau of Standards and Metrology (NBSM), Federation of Nepalese Chambers of Commerce and Industry (FNCCI) and several other institutions have been developed to make policy, to issue pollution control certificate, to formulate environmental management standards and for monitoring purposes. Similarly at the plan and policy level, several interventions such as keeping large scale polluting industry out of Kathmandu, developing industrial pollution inventory (1994), establishment of environmental divisions and mandatory IEE/EIA for polluting industries have helped in mainstreaming environmental concern in industrial sector. Furthermore, several bilateral and multilateral interventions such as UNIDO-Standards (1981-1983), DANIDA ESPS (1999-2005); SDC/VSBK (2003-2011), GIZ-NEEP (2010-2014) have been crucial for environmental mainstreaming at industrial sector.

He pointed out following findings of the intervention over the years-

- Legislations, directives are mostly reactive to pollution rather than proactive
- Previous bi- and multilateral interventions were resource conservation oriented, but recently more focused on climate change rather than on sustainability of resources
- Most bi-lateral and multilateral assistance are one time prescriptive in nature
- No single institution responsible for conservation and development exists
- Number of inter-governmental ministries and departments' involvement in policy formulation, planning at the sector and sub-sectoral level for execution of different projects lack coordination among them
- Previous plans and policies and their level of implementation have never been clear enough to tackle the sustainable production
- All planning and supporting agencies need to initiate new pro-conservation strategies for sustainable development
- Use of cleaner production is included in the 10<sup>th</sup> FYP but strategy for implementation is not clear
- Energy policies are currently scattered in various documents and in executive orders

Dr. Kunwar finally highlighted key challenges currently faced by the industrial sector in their EM initiatives as following-

- Government plan and policies focus exclusively on pollution prevention or pollution mitigation initiatives
- Most of the energy programmes are planned at central level with limited access of local collaboration and the local involvement is restricted only to implementation mechanism
- There exist dissatisfaction of local government with the central agencies as the central agencies are indifferent to local proposals and the funds distribution between them are unequal

### Discussions

1. Participants raised concern on how can industries/private sector help in ensuring **secured livelihood** and in retaining the migrating population in their villages though environmental protection. Reaction to the comment was that industrial sector has the potential to ensure secured livelihood and to retain the migrating population only when it has financial gain. However this is limited at present because the industries are not operating at their full capacity and the industrial development is more or less stagnant. Factors like power cut, *Nepal Band* and trade unions have hampered the operation of the industries and in generation of money which would have helped in environmental protection and subsequently in ensuring secured livelihood and out migration. Some participant suggested that if the government/donors would invest on industrial sector and enhance the **capacity of local entrepreneurs and private sectors**, problems of out migration could be solved.
2. Comments were made on the roles of the government and its **plans and policies which are reactive** and focus only on pollution control mechanisms. Participants felt that the plans and policies should be proactive and be focused on resource optimization and resource efficiency.



## 6. ROUND TABLE DISCUSSION ON EM CASE EXPERIENCE

Participants had a round table discussion between themselves regarding their experience in environmental mainstreaming and anything that have had some ability to put environment on the table and make a difference. Issues could be any initiatives including projects or any small interventions that had made a difference and got environment considered in decision making.



1. Ms. Hasina Shrestha gave an example of her involvement in an IRC project during 2001/2002 where she worked as a gender specialist. She had to deal with women working in NGOs involved in environmental related activities. She had organized more than 3 workshops to the participants from hydropower sector including those from NGOs and government ministries. During that time Ms. Hasina found that many of the participants had no idea about the women and environment linkages. She explained that the women are primary users of natural resources in developing country like Nepal, and they make many choices that affect the environment. The workshop was successful in generating awareness about the role of women in environmental conservation.
2. Mr. Ashok Bhattarai said from his experience in working in the environmental ministry, that there are still many developers/proponents who are not mindful about environmental consideration.

They just want to consider environment in their developmental project for the sake of adhering to the rules and regulations and don't believe that doing EIA will benefit themselves in the long run. They just want to complete the task of EIA and get the license for the development. Mr. Bhattarai, believed that during this workshop they have talked about various things related to environmental mainstreaming and have blamed either government or bureaucrats for things that went wrong. He argued that, we the professionals working for environment are the experts and it's our weakness that we haven't been able to convince the developers and make them understand the benefit of environmental protection. Dr. Clayton further elaborated the discussion by saying that it is not only the point of getting them to understand us, we have been preaching for last 20/30 years asking them to listen to our stories, but in fact it is the other way around. We need to understand them so that we can help them to improve on what they are doing in addressing environmental issues and many times by doing it we can actually increase their profits as well.

3. Dr. Dinesh Bhujju, gave an example of his own initiative that he started back in 1999. He, along with other experts, took an initiative to prepare baseline information of Churia range in Nepal. The Churia range, also called the Siwaliks, is very fragile region of Nepal but also very dynamic range extending from east Nepal to west Nepal; the only intact corridor of habitat for the flora and fauna and the most forested area in the whole range of Nepal. In 4 years of his efforts, they covered 70% of the region on foot, they travelled extensively with several Masters and PhD degree students who surveyed and documented lot of information of that area. In total they took almost 300 man days for the survey and collected information on varieties of aspects like land use pattern, biodiversity, forest structure, forest composition, ethno botany etc. However after that, they couldn't convince the government nor the NGOs and nor the donor agencies even to publish the report of those exercises. So the report stayed idle for nearly 5 years. Finally only in 2009, the president of Nepal declared the Siwaliks as one of the most important landscape of Nepal and now it is on top priority of the government. Dr. Bhujju argued that the lesson is that the academics are not heard in Nepal and top-bottom approach is still very dominant. He further articulated that the shortcut to mainstreaming in Nepal could be to capture the president or the prime minister and get him involved in the initiative.
4. Ms. Komal Oli discussed the importance of media in raising the awareness about environmental protection in Nepal. In order to get environmental issues mainstreamed she said folk songs could pass environmental or any other messages easily across the heart and minds of the general masses rather than modern music which could be limited only to the urban population. Dr. Barry Dalal-Clayton elaborated the discussion by giving his experience in IIED. When IIED first started community based natural resource management (CBNRM) during early 1980s in Africa, they were battling with other environmental anti interests such as allowing hunting. So his institution turned to theatre through a group called 'Theatre for Africa' who did a play all about communities managing their own resources. The theatre was a powerful and culturally sensitive tool for promoting community participation in CBNRM in Africa. The play was a huge success; it toured all over the world and even won awards. It made more conversions of rigid mindset than any environmental academic or NGO or pressure groups and achieved what technical document could not do. Dr. Clayton underlined the fact that in order to reach beyond the places we normally reach, media is the most useful tool and Nepal could use similar initiatives in its environmental mainstreaming effort.
5. Dr. Dipak Rijal, gave an interesting example of a voluntary demonstration project in Bara Simrangad during the year 2000. As a part of his project work during his higher studies, he was involved in a project work related to conservation of agriculture biodiversity in Nepal, particularly in Terai where the loss of biodiversity was highest due to higher intervention. In order to conserve the agriculture diversity, he wanted to establish a model seed bank so that people could access those varieties of seed which they were looking for but had not been able to find it locally. Dr. Rijal's team developed guideline to establish the seed bank. When they couldn't find any donor to

establish the seed bank, they decided to bear the expenses from their own pocket and by capitalizing the local resources. With that initiative, local people were quite motivated particularly women because women were usually the custodian of those resources and traditional knowledge was associated with them. Dr. Rijal's team took the women group as an entry point to implement their concept to establish a structure by collecting all the genetic resource available locally and set a mechanism to regenerate it every year. They also invited other government officials, INGOs and NGOs to look at it and to contribute to it. After two years of its successful implementation, they created local storage houses for the local rice seeds and utilized traditional knowledge to manage it. The seed bank currently transact some 200 tons of rice seeds every year and the community is running the program on their own without any external funds and are supplying now commercial varieties of rice seeds to India as well. Other INGOs working in Nepal have replicated the concept in other areas such as Langtang, Rasuwa and in far western regions. Even the government of Nepal (Ministry of Agriculture) has established similar community seed bank in several places and it has become one of the government programmes. Dr. Rijal explained that his initiative has been a successful example for resource conservation and demonstrated that small initiative can led to something powerful.

6. Mr. Madhukar Upadhyay gave an example on why it is important to clarify any environmental issue from the lens of local community. In the past, when he was involved in a regional project in South Asia regarding local water management cases, he once talked to a local farmer in Gujrat, India. In that village, the groundwater level had decreased considerably and many wells had dried after the locals had started to dig deeper and deeper to get more ground water. This had led to rapid degradation of the ground water and the irrigation was compete nil in the village. When Mr. Upadhyay asked the farmer, if he was worried about the situation as his resource had completely depleted, the farmer smiled and said that he was not worried as his son would be graduating next year in the city and he would eventually move out from the village. These experiences made Mr. Upadhyay's team reflect on the fact that how difficult it is to get local people manage their resources especially when the resources are in a very critical situation. Similarly in one of his other projects he was trying to find out who is poor in the villages of Nepal. The answer he got varied from the one who had no one working in the Gulf countries, to the one who doesn't have a house to live to one whose husband drinks alcohol every night. Mr. Upadhyaya said that the definition of a problem differs with individual and it could be a hindrance in mainstreaming environment with development or vice versa.

In the ongoing contexts of poverty, Mr. Upadhyay also elaborated on his experience of involvement the PEI initiative in public environmental expenditure. According to Mr. Upadhyay, PEI is a programme developed by UNEP, which is a global programme also initiated in Nepal, at national level through NPC and at local level through MLD including DDCs and the VDCs, that looks at the poverty environment linkage in development. Part of that programme also has an activity looking at the environmental expenditure i.e. private public environmental institutional review where they wanted to find out where and how money is being spent in environmental aspects and climate change. The review was actually designed as the climate financing is going to big issue in future and also because there have been several environmental expenditures in the past. According to him, in order to simplify the climate financing the exercise is a strategic financing arrangement similar to concept of SEA. Looking at the programs and individual projects at national level, the programme will look at the strategic financing provisions, especially on which organization is spending how much money in environment and in climate change. He said the attempt has been difficult because while analyzing the environmental budget, it is difficult to find out how much of that budget actually goes to environment or climate change as most is spent in salary, operation, vehicle, travel etc. He stressed again that the debate is on how to define what is considered environment (e.g. would expenses of people working on environment be environmental expenditure and would vehicles bought for environmental work also be environmental expenditure?)

7. Prof. Dr. Subodh Sharma discussed that one of the ways for EM could be by developing a habit of adapting to best practices. He elaborated his concept by giving examples of his experience in different countries. For example, in Bhutan, he found that the rivers were very clean. This was because they had a system of adopting river by some individual who looked after the stretch of the river which practically kept their rivers clean. Similarly, once Dr Sharma was in a very arid village in Ethiopia for a project. He found an old woman in the village growing a banana tree in her house. In order to water that banana tree, the women had to spend 5 hours a day fetching water, but still she believed that the tree is like her child and it's her responsibility to water it as one would nurture and feed his/her own child. Dr. Sharma believed that in similar ways, when it comes to environmental mainstreaming, one has to bring a change in his/her attitude and rethink about the cultural practices. There are several best practices around us, which we should learn and adopt.
8. Mr. Narendra Lama, highlighted the importance of indigenous knowledge and religious best practices in effective mainstreaming of environmental concerns of local communities. He gave example of his experience in Manasalu region, one of the remote mountain areas of Nepal. There he learned from the great monk of the monastery, that the whole Manasalu area is included as a '*Bheyul*' region. In Tibetan language, *Bheyul* means Sanghri -La, a sacred area for Buddhist people. Mr Narendra, argued that the concept of *Bheyul* was very important in nature conservation because within the zone of *Bheyul*, poaching, hunting, river system destruction, and cutting of trees is not allowed. It was like a concept of protected area that plays a significant role in the protection and conservation of biodiversity.

Mr. Lama, gave another example of case study of WWF Nepal. He said that the then country representative of WWF, Dr. Nima Norbhu Sherpa, during his tenure, had played a significant role in restricting the use of wildlife products. Dr. Sherpa had observed that there was high supply of wildlife products in the Tibetan regions because Tibetans are traditionally fond of wearing wildlife products in their ceremonies and occasions as ornaments and costumes. It was challenging job for Dr. Sherpa to restrict the trade inspite of other international trade restrictive mechanisms such as CITES. Finally he had visited Dalai Lama, and requested him to disseminate information on the repercussion of using wildlife products. Around 8 years ago, when there was a big ceremony of Dalai Lama in Canada to offer his teachings to the Buddhist community, he then gave information of the wildlife products and its impact on the biodiversity and requested all the Tibetan people to restrict use of wildlife products as ornaments or jewellery or costumes. The information given by Dalai Lama had great implication on the trade of wildlife products by the Tibetans and changed the behaviors of the people directly rather than a million dollar project. Mr. Lama concluded his discussions by saying that religious beliefs should not be disregarded because it has direct impact on mainstreaming local people in real practice of environmental conservation than and any other expensive initiatives and programmes.

9. Mr Surya Man Shakya gave an example of his involvement in the Environmental Protection Council (EPC) and stressed the need to resurrect it. EPC was a high level organization developed to oversee environmental matters which now lay dormant. According to him, a ministry on environment is necessary to work on matters related to environment, but since environment is multi-sectoral not one ministry can decide on it. Psychologically, a decision by ministry of environment might not necessarily be liked by ministry of hydropower because it could have felt overshadowed. Mr. Shakya said that EPC was formulated to overcome such physiological barrier. EPC was infact a radial organization, where all the decisions were taken on consensus and by equal participation of all the ministries. EPC was therefore a well-designed institution, where the ownership lied to all the ministers, if things went good everyone would get the credit and if things went wrong everyone was to blame. He stressed that the present day complexity in decisions related to environmental matters can be solved by resurrecting EPC.

He was adamant that no matter how much one talks about environmental mainstreaming, power plays a key role. According to him, nation runs under the cabinet of decision makers. If at the ministerial level environmental decisions are not mainstreamed, then there is no way that programs are successful. For environmental matters, one ministry can never take a lead role. He said, not minimizing the role of environment ministry, MoEnv is basically there as an implementing agency of all the ministries also working on environmental issues. Each and every ministry have environmental programmes, but when it becomes beyond the mandate of each ministry, MoEnv can never take decision on its own due to multi-sectoral nature of environment. Therefore an apex body such as EPC is necessary.

## 7. CONSTRAINTS AND CHALLENGES OF ENVIRONMENTAL MAINSTREAMING IN NEPAL

The participants were divided into groups of three to discuss and report back on the constraints and challenges of EM in Nepal.

### Discussions

The working group brainstormed and identified range of issues for effective Environmental Mainstreaming in Nepal. The constraints and challenges discussed by the working groups are in the following table



Table 3: Constraints and Challenges to EM in Nepal

S.N	Constraints	Challenges
<b>Policy level</b>		
1	Weak political commitment – low priority of the government on environmental issues	Impart awareness to leaders and managers on environmental issues (e.g. trainings)
2	Static policies and plans- the existing policies and plans are not dynamic enough to incorporate new challenges and issues	Get environment on the national agenda
3	Lack of adequate budget and inequity in allocation of budget e.g. climate change has more budget than any other environmental issues	Prioritization of local, national and global needs and subsequent allocation of budget
4	Weak implementation and monitoring mechanisms	Formulate indicators, Collective collaboration in local and cross-boundary issues
<b>Institutional level</b>		
5	Weak institutional capacity to fulfil international obligations and national needs on environmental protection	Institutional strengthening and promote networking and coordination
6	Weak coordination between institutions and overlapping mandate	Sustain network mechanisms (e.g. EPC)
7	Lack of human resources- relevant professionals are missing	Provide trainings and academic qualifications
8	Lack of awareness and empowerment at the local level for environmental issues	Make environment an agenda of the local and common people
9	Lack of access to information, technology and lack of information sharing mechanism	Coordination and use of media in information dissemination
<b>General</b>		
10	Diverse knowledge background for implementation	Revisiting the process, approach and institutions- to see where we stand
11	Different ways of understanding the problem- one understands problem in different way than the other e.g. melting of snow is a different problem to a farmer in mountain region than to a person in Kathmandu	Understand the difference between emotional ecology and development. One need to cross the boundary of emotional ecology mindset and accept development is equally important
12	Rigid and narrow thinking on environmental matter	



Day3  
(Oct.22, 2011)

Key recommendations for making environmental mainstreaming effective in Nepal, What is EM for Nepal, follow up and closing session.

## 8. KEY RECOMMONDATIONS FOR MAKING ENVIRONMENTAL MAINSTREAMING MORE EFFECTIVE AND SYSTEMATIC IN NEPAL

The participants were divided into groups of three to discuss and report back on the key recommendations for effective EM in Nepal

### Discussions

The working group brainstormed and identified range of suggestions for effective Environmental Mainstreaming in Nepal. The recommendations discussed by the working groups are in the following table





Table 4: Key recommendations for effective EM in Nepal

S.N	Recommendations
1.	Ensure 'Environmental Rights' of people, animals and plants in the new constitution of Nepal in the form of an article
2.	Revive/ revitalize Environmental Protection Council (EPC) with modified functions and responsibilities
3.	Formulate a holistic environmental policy by updating and integrating existing/new policies
4.	Establish Strategic Environmental Assessment (SEA) process by conducting one or two pilot project/ programmes
5.	Enhance endogenous(home grown) capabilities of individual and institutions
6.	Revisit, stock take and review of all the initiatives (plan, programmes) and evaluate where Nepal stands now in terms of EM
7.	Create a ' <i>Sewa Samuha</i> ' (Environment Service Group) for environment sector (alike other sectors) within the public service commission
8.	Scale up and continue ELLG group, core group of experts and steering committee
9.	Provide trainings and capacity building to professionals
10.	Promote people's agenda in mass movement through local level media including FM radios
11.	Involvement of students in conservation issues, waste minimization and resource optimization
12.	Involve local level, civil society (e.g. Community Forest User Group, cooperatives) in environmental mainstreaming
13.	Promote indigenous knowledge, art and culture, cultural practices and best practices through proper documentation
14.	Include socially excluded, disadvantaged, under privileged member of the society in EM
15.	Promote resource allocation through conditional grants to grass root level programme implementation
16.	Promote active collaboration and coordination among universities and public institutions for access to information sharing and decision making
17.	Plan to make environmental related academic programmes more attractive addressing in the issues of employment, inter universities credits transfer system and recognition

## 9. WHAT IS ENVIRONMENTAL MAINSTREAMING FOR NEPAL?

**Mr. Surya Man Shakya, Solid Waste Management Specialist** made a presentation on his view regarding the situation of Environmental Mainstreaming (EM) in Nepal. He began by discussing the past EM efforts in Nepal. He said that although there had been issues related to development and issues related to environmental cost, Nepal have had positive environmental outcomes, and in that sense one can believe that environment has been mainstreamed to some extent.



He argued that Nepal does have glorious past regarding Environmental Mainstreaming. Be it watermills in the villages or world heritage sites in Kathmandu, Nepalese people stood as a testament to the ingenuity and skill of the ancient wisdom of mainstreaming environment without formal degrees on environmental protection.

He then highlighted the importance and necessity of development in Nepal. According to him, EM for Nepal probably means that the development trends are there to affect our lives, improve our economic

growth and national development but we need to find ways to prevent them from destroying our environment because at present environment is being marginalized as the governance system experience environment differently and link it with politics and economics.

He further discussed how effective mainstreaming of the environment can be done. He said that Nepal's incentive to mainstream environment is to get the desired national objective. And mainstreaming is achieved if and only if the discipline and professional competence of technical, scientific and socio-economic knowledge is utilized in order to benefit from natural laws and physical resources to help design and implement national programs that safely realize a desired objective.

Mr. Shakya pointed out that the argument for addressing **mainstreaming environment is not simply that it exists in the form of many government departments and sections** but that it exists at all levels of society and the governance system. Effective environment protection through mainstreaming the sector is an indicator of production, reproduction of wealth and wellbeing at all levels of society in Nepal without any discrimination. He said that that environmental issues can be mainstreamed through both society's formal laws and statutes and through unwritten norms and shared understandings. He believed that apart from implementation of acts, relevant rules, guidelines and manuals relevant institutional, financial, environmental, legal instruments, in case of Nepal mainstreaming local ethics and ethos are equally important

Finally he passed judgement about the views expressed in Khadka et.al, 2011 (Background paper on EM presented at the first day of the seminar by Mr. Ajay B Mathema, Annex 4) evaluation of EM in Nepal which was based on following factors-

- a) Acceptance at the policy level or initiated by the national Five Year Plan (FYP) of Nepal;
- b) Enactment of environment related legislation;
- c) Establishment and/or strengthening of institutional arrangements;
- d) Availability of human resources and capacity-building;
- e) Undertakings, projects and activities to support the environmental mainstreaming initiative;
- f) Participation in the initiative of private, public sector and NGOs;
- g) Research undertaken;
- h) Political willingness/ high level commitment towards environment related works

He argued that one cannot conclude only on the basis of above given factors that environment has been mainstreamed in Nepal. He stressed that it is in fact-

- a) **Implementation** of policies -
- b) **Effectiveness** of Legislation -
- c) Institutional arrangements/**Actions** -
- d) human resources **utilization**-
- e) **Sustainability** of projects and activities -
- f) **Confidence level** of private, public sector and NGOs -
- g) **Dissemination** of Research undertaken -
- h) Political **Commitment**-

-that determines whether or not environment has been mainstreamed in Nepal.

## **Discussions**

### **1. Defining EM in Nepalese context**

Dr. Bhujju discussed that the definition of EM as proposed by IIED, 2009 is perhaps too technical and limited to researchers, professional and academics only. He said the definition should have philosophical aspect to it so that general people embrace it as well. According to him EM could also include-

*'Inculcate (grooming) environmental culture and bring positive attitude in appreciation of nature and conservation'*

## 2. Translating Environmental Mainstreaming in Nepali language

Participants discussed on the various words that would best express Environmental Mainstreaming in Nepalese language. The various alternatives were-

- |                                     |                       |
|-------------------------------------|-----------------------|
| a. <i>WatawaranMulprabhahikaran</i> | वातावरण मूलप्रभाविकरण |
| b. <i>WatawaranMuldhar</i>          | वातावरणमूलधार         |
| c. <i>WatawaranHelinu</i>           | वातावरणहेलिनु         |
| d. <i>Watawaransamahitgarnu</i>     | वातावरणसमाहितगर्नु    |
| e. <i>Watawaranatmasathgarnu</i>    | वातावरणआत्मसाथगर्नु   |

## 10. PRESENTATIONS

**Dr. Dinesh Bhuju, Chief, Faculty of Science from NAST, presented** his experience on a case that could be related to the present initiative by the ELLG group. He explained his experience and lessons learnt on his initiative in trying to mainstream Science, Technology and Innovation (STI).



He said that whether it is in environment, biodiversity, climate change or any field, STI was not being reflected in any of the government's programmes. About 2 years ago, his team together with UNESCO worked on a programme to determine STI priority in the country. The idea was conceived to formulate national strategy of STI for Nepal. They discussed with small group of likeminded professionals and they sent the proposal to UNESCO, Paris through Ministry of Science and Technology. He said during that time there was a very enthusiastic minister in the ministry who bought their idea and volunteered to send their proposal to Paris. Fortunately, UNESCO took the proposal positively and sent a UNESCO mission to Kathmandu. The task initiated and a contract was signed between NAST and UNESCO. The problem started then because the proposal was sent by the ministry but the contract was signed between NAST and UNESCO. The reason was simply because the previous minister was changed and UNESCO wanted the same group to continue working with. The new minister didn't like the idea, but however since the some task had already initiated, there was no option. Dr. Bhuju's team formed a steering committee headed by the Vice Chancellor of NAST. In retrospect, Dr. Bhuju recalls that probably that was the mistake he made. Instead of forming the steering committee under the chairmanship of NAST, if he had formed it under Ministry of Science and Technology, things could have been better. They also formed a technical committee who carried out the related activities. According to him, they organized several consultations meeting with experts in several sectors related to STI. Several workshops were held, presentations were made, opinions were collected and finally STI priority areas were finalized. The outcome was that they identified key problem areas, key issues and challenges, and field level actions were suggested for five priority areas. The final report were submitted to UNESCO, NPC and Ministry of Science and Technology and circulated to all the interested individuals and institutions.

Unfortunately, Dr. Bhuju said that despite all the efforts, **the implementation of the work recommendation is still awaited** and it has been over a year already. His team is still waiting for the recommendations to be adopted and also been trying to find out where was the mistake made.

## Discussions

The participants asked Dr. Bhujju what was his assumption on why the initiative was delayed. Dr. Bhujju replied that probably the first reason was the **timing of his task**. He believed the whole country and the politicians at present are after the constitution drafting which is the most priority of the country. Issues such as STI, is not much interest to the policy makers. Secondly, he believed the government is very dynamic and it has been changing every now and then. The earlier minister bought the idea quickly and he volunteered to send the proposal to UNESCO. By the time UNESCO bought the idea, the minister was changed and the whole ministry was reshuffled into two different institutions. This instability probably has delayed the work. And thirdly, he believed that the professionals also could not feel the pulse of the timing.

The participants raised their interest on what would be the **take home message** from Dr. Bhujju's initiation which could also be applied to present workshop. The reaction was-

- To involve the political representation in such type of discussion in present situation of the country
- Not to give it up. To endure and hold to one's voice and effort.

**Mr. Bhairab Rijal, Environmental Journalist, NEFEJ**, shared his experience on the role of media (journalist) in the protection of environment. He said he began his career in Environmental Journalism around 1957. During that time, the word *Watawaran* (equivalent of environment) did not exist and the world was different. There occurred flood, landslides and other disasters but those were never linked with *Watawaran*. Even the nation linked those events as '*Daivik Prakop*' which meant event initiated by the will of God. He said the rivers, mountains, forests were physically, biologically and chemically pristine and there existed life (biodiversity) in all those resources.



He explained that until 1975 in Nepal, the general understanding about environment was limited only to 'Forest' and only after 1980s the term environment incorporated other sectors. The following decade was characterized by massive pollution, consumption and exploitation of resources. Environmental Journalism started to develop in Nepal after the Stockholm Conference in 1972 and due to the global influence; environment journalist group (NEFEJ) was formed in Nepal 1986. Until that, environmental journalism in Nepal was sporadic and NEFEJ played a major role in bring environmental agenda among general public and policy makers. NEFEJ was one of the driving forces behind the enactment of Environmental Protection Act, 1996 and Environmental Protection Rules, 1997. With the developments in radio, newspaper, television and other media, the topic of environment became more popular and frequent in the Nepalese society only after 2000.

He believes that although the media has been successful in generating awareness about environmental protection in urban areas, the challenge lies in promoting the same in rural areas where people have less exposure to the media and are more dependent on environmental resources. He faces dilemma on how to convince to a poor family who has no choice other than depending on fire wood for his daily needs for environmental protection. He finally said that the lack of universal access to education, lack of access to technology and media, and unreliable electricity (e.g. frequent power cuts) are the major factors limiting media on imparting environmental awareness and education to the society.

## 11. FOLLOW UP

The participants discussed on the range of follow up items after the workshop such as-

- a) Preparing Proceedings of the ELLG workshop (and distribution to participants)
- b) Preparing Public report on EM arising from the ELLG workshop (English version published via IIED, Nepali version via AEMS)
- c) Getting artists to produce a CD of songs on key environment messages / theatrical performance in coming years
- d) Preparing EM diagnostic report
- e) Launch of (b) and (d) at a big event (when and how to be decided by the Steering Committee of the ELLG)

The participants agreed to further communicate with AEMS and the Steering Committee on other possible activities and appropriate way forward for the follow up of the ELLG and its initiatives in future.

## 12. CLOSING CEROMONY

**Session Chair-** *Mr Reshmi Raj Pandey, Joint Secretary, Ministry of Local Development (Chairman of the Steering Committee of the ELLG group)*

**Chief Guest-** *Dr. Om Sharma, Registrar, Pokhara University*

**MC-** *Mr. Ajay Bhakta Mathema, Director AEMS*

Thanking all the participants of the workshop, the MC of the closing session, Mr. Ajay B Mathema, briefly explained that the three day workshop is towards its end and he was pleased that it was successful in bringing about ideas, knowledge and experiences in the field of environmental mainstreaming in Nepal.

He initiated the formal inaugural session of the workshop by inviting the key guests on the dais who then addressed the audience and the participants in following order.

**Ms. Komal Oli, observer of the Conference,** thanked the chairman of session, chief guest and the organizing committee (AEMS) and expressed her gratitude in being a part of the workshop. She expressed her delight in being able to interact, communicate and discuss with the workshop participants, who are well known experts in the field of environment and believed that the workshop was very fruitful to her in gaining insight to various issues of environmental mainstreaming in Nepal.



Ms. Oli said that the workshop has renewed her interest in the field of environmental protection. She promised that whenever she would get any opportunity in her current profession, she would definitely volunteer her time and effort for environmental cause, for e.g. by singing songs with environmental message. She concluded by giving especial thanks to Dr. Barry Dalal-Clayton of IIED and Prof. Dr. Ram B. Khadka of AEMS for involving her in the workshop.

**Prof.Dr. Anand Raj Joshi, Technical Director, AEMS** thanked the chairman and the chief guest and gave his remark about the workshop. He said that he was very pleased with the workshop and was excited about its findings and outcomes. He believed the discussions held were very important to understand the environmental mainstreaming in Nepal. According to him, as discussed in the workshop, the prevalent definition of environmental



mainstreaming is not complete for Nepal. The definition should not only mention about integration of environment and development, it should also incorporate common people's perception on environment. He said the Steering Committee would later discuss the alternative definition of EM suitable for Nepalese context and he believed, this itself was a major achievement of the workshop. He explained that the experiences shared and the case studies presented in the workshop demonstrate that Nepal is in the right track of environmental mainstreaming and there must be efforts to continue those initiatives.

He especially thanked Dr. Barry Dalal Clayton from IIED who had suggested new idea, new insight and new direction for future agenda in the field of EM in Nepal. He was also grateful to IIED for providing this opportunity. He appreciated the members of the Steering Committee for ELLG group and its chairman Mr. Reshmi Raj Pandey for providing significant inputs in organizing the workshop. He thanked Prof. Dr. R. B. Khadka for his contribution in the field of environmental management in Nepal and for his leadership in various environmental related projects and programmes including the workshop. He cheered the team of AEMS for their hard work and support. He expressed his gratitude to Pokhara University and the Registrar Dr. Om Sharma for being a part of the project. Finally he cheered all the participants for their participation and contribution.

**Dr. Om Sharma, Registrar, Pokhara University** thanked Prof. Dr. R. B. Khadka, Dr. Barry Dalal-Clayton, the Chairman and all the guests and the participants and congratulated them for the successful completion of the workshop. He believed that through this workshop, Pokhara University has shown some credibility in the field of environment. He said this will help Pokhara University to approach all the guardians and students to demonstrate that it works and cooperated in the field of environmental management.



He articulated that environmental issues are so important at present that everyone has the responsibility to manage it. He believed all environmental things are resources and it is in each individual's decision whether to utilize the resources for their benefit or deplete it. He hoped that the knowledge of the participants of the workshop and the interaction during the workshop will contribute in some way for environmental protection and management.



**Mr. Reshmi Raj Pandey, Chairman, Steering Committee for ELLG** gave the concluding remarks for the closing session. Greeting the chief guest, organizers, guests and participants, the chairman of the closing session expressed his satisfaction with the organization and outcome of the workshop.



He highlighted several programmes of the local government in the field of infrastructure development, urban development, controlling water pollution, solidwaste management, industrial pollution control that have played important role for environmental management. He explained that present day challenge is to streamline the interest of both academicians and practitioners as they seem to be running in separate direction and real development is not possible until both have same understanding. Therefore, the government has signed a memorandum of understand with the Tribhuvan University so that they can involve environmental students in the environmental task of the government (e.g. utilizing students in monitoring of EIA/IEE studies) and he said the government is open to such offer for the students from another universities as well.

According to him, at present, many environmental and development works have not been initiated due to political instability. He insisted that such tasks should not be completely stopped during the transitional phase of the government because the institutional memory could fade away. He stressed that the plans and programmes should be ongoing even in the current transitional period.

Finally the chairperson expressed his gratitude to Dr. Barry Dalal Clayton and IIED on behalf of the government of Nepal for their involvement and guidance in environmental mainstreaming in Nepal. He thanked the participants for their involvement and input. He acknowledged Prof. Dr. Ram Bahadur Khadka, Prof. Dr. Anand Raj Joshi, Mr. Ajay Bhakta Mathema, Mr. Shailendra Guragain, Mr. Binay Bikram Adhiraki and Ms. Pujan Shrestha from AEMS for the job well done in organizing the workshop. He also thanked joint organizers of the workshop such as MoEnv, NPC, UNDP/UNEP-PEI, and Pokhara University on behalf of MoLD.

After this, the presiding chairperson declared the ELLG workshop as closed.

## Annex 1: Steering Committee

A steering committee, consisting of following members, was formed for successful implementation of the program activities. The steering committee will focus mainly on the program, its targets and outcomes, and activities.

SN	Name	Position	Institution	Email
1	Mr Reshmi Raj Pandey	Chairman	Joint Secretary/ Ministry of Local Development	<a href="mailto:reshmipandey@hotmail.com">reshmipandey@hotmail.com</a>
2	Prof Dr R B Khadka	Member	Chairman - Environmental Management Subject Committee, Pokhara University	<a href="mailto:rbkhadka@wlink.com.np">rbkhadka@wlink.com.np</a>
3	Dr Barry-Dalal Clayton	Member	Sr. Fellow, International Institute for Environment and Development	<a href="mailto:Barry.Dalal-Clayton@iied.org">Barry.Dalal-Clayton@iied.org</a>
4	Mr Manohari Khadka	Member	Program Director (Under Secretary), National Planning Commission	
5	Mr Ashok Bhattarai	Member	Under Secretary, Ministry of Environment	<a href="mailto:bhattaraiashok@yahoo.com">bhattaraiashok@yahoo.com</a>
6	Prof Dr Ananda Raj Joshi	Member	Member, Environmental Management Subject Committee, Pokhara University	<a href="mailto:ajoshi9@gmail.com">ajoshi9@gmail.com</a>
7	Mr Shailendra Guragain	Member	Secretary, CEDAN	<a href="mailto:guragain.shailendra@gmail.com">guragain.shailendra@gmail.com</a>
8	Mr Madhukar Upadhyaya	Member	UNDP-UNEP Poverty and Environment Initiative	<a href="mailto:madhukaru@gmail.com">madhukaru@gmail.com</a>
9	Dr Ram Bhandari		Pokhara University	<a href="mailto:rbbhandari@gmail.com">rbbhandari@gmail.com</a>
10	Mr Ajay B Mathema	Member Secretary	Director, Asian Centre for Environment Management and Sustainable Development (AEMS)	<a href="mailto:ajay.mathema@aemsregional.org">ajay.mathema@aemsregional.org</a>

### Proposed responsibility of the steering committee

1. Endorse scope and outcomes of the N-ELLG, and ensure activities are in alignment with the scope and the outcomes;
2. Provide guidance to facilitate successful implementation of the program;
3. Take responsibility for the activities, scope and outcomes of the N-ELLG;
4. Coordinate with concern authorities, partners, and stakeholders as per the necessity;
5. Reconcile differences in opinion and approach, and resolve disputes arising from them, if any;
6. Review, provide feedback and approve progress and outcomes of the N-ELLG.



## Annex 2: Nepali Environmental Learning and Leadership Group (ELLG)

### Environmental Learning and Leadership Group

SN	Names	Institution / Expertise
1	Prof.Dr.Subodh Sharma	Kathmandu University
2	Mr. Surya Man Shakya	Ministry of Local Development
3	Dr. Dinesh Bhujju	Nepal Academy for Science and Technology
4	Dr.Dipak K. Rijal	Climate Change Expert
5	Dr. Shree Govind Shah	Environmental Planning Expert
6	Dr.Kunjani Joshi	Tribhuvan University
7	Mr.BhairabRisal	NEFEJ
8	Dr.UttamKunwar	FNCCI
9	Mr.BhairajaManandhar	Ministry of Environment
10	Mr. Ashok Bhattarai	Ministry of Environment
11	Mr.Reshmi Raj Pandey	Ministry of Local Development
12	Ms.HasinaShrestha	Gender Specialist
13	Dr. Ram Bhandari	Pokhara University
14	Mr.MadhukarUpadhyay	UNDP/UNEP- Poverty and Environment Initiative

### Other Representatives, Participants and Observers

SN	Names	Institutions
1	Dr. Barry Dalal-Clayton	International Instituted for Environment & Development
2	Prof.Dr. Ram BahadurKhadka	AEMS
3	Prof.Dr.Ananda Raj Joshi	AEMS
4	Mr.ShailendraGuragain	AEMS
5	Mr. Ajay BhaktaMathema	AEMS
6	Ms.Pujan Shrestha	AEMS
7	Mr.BinayBikramAdhikari	SchEMS
8	Dr.Indra P. Tiwari	Pokhara University
9	Mr.SudipAdhikari	ACAP
10	Mr.Narendra Lama	ACAP
11	Mr.Paras B. Sim	ACAP
12	Mr.BidurBikramKuinkel	ACAP
13	Ms.RatnaTimsina	ACAP
14	Mr.Ramesh D. Shrestha	ACAP
15	Ms.KomalOli	Cultural Environment

## Annex 3: Program schedule

### Agenda Day 1 (20 October 2011)

#### Inauguration

- 12:45 – 13:00 Registration  
13:00 – 13:10 Welcome remarks by Mr. Shailendra Guragain, Executive Director, AEMS  
13:10 – 13:20 Remarks by Dr. Om Sharma, Registrar, Pokhara University  
13:20 – 13:30 Remarks by Mr. Arjun Thapa, Local Development Officer, Pokhara  
13:30 – 13:50 Inauguration and remarks by the Chief Guest, Prof. Khagendra Prasad Bhattarai, Vice Chancellor, Pokhara University  
13:50 – 14:00 Presentation on purpose of the workshop by Dr. Barry Dalal-Clayton, Sr. Fellow and Director for Strategy, Planning and Assessment, IIED, UK  
14:00 – 14:10 Closing remarks by Prof. Dr. R.B. Khadka, Chairman, Environmental Management Subject Committee, Pokhara University

#### End of Inauguration

#### Tea Break

- 14:45 – 15:00 Introduction of the Participants  
15:00 - 16:00 Challenges of Environmental Mainstreaming by Dr. Barry Dalal-Clayton Sr. Fellow and Director for Strategy, Planning and Assessment, IIED, UK  
16:00 – 17:00 Environmental Mainstreaming in Nepal: An overview of initiatives and experiences by Mr. Ajay B Mathema, Director, AEMS

### Agenda Day 2 (21 October 2011)

- 8.30 Environment and Development Linkages  
'Buzz' discussion (5 groups x 3-4): discuss 10 mins; report back 20 mins  
9.00 Who is driving environmental mainstreaming, and for what purposes?  
Group 'mapping' (3 groups x 5/6): discussion 30 mins, report back 30 mins (10 each)  
10.00 Coffee break  
10.15 Case presentations of some Nepali environmental mainstreaming initiatives (ACAP, NCS, EIA, NAPA/LAPA, EMS) (25 min each: 15 presentation, 10 discussion)  
12.30 Lunch  
13.30 Round table on other mainstreaming case experience  
15.15 Coffee  
15.30 Constraints and challenges of environmental mainstreaming in Nepal  
Group discussions (5 groups x 3) (45 mins; report back and debate: 45 mins)  
17.00 Close

### Agenda Day 3 (22 October 2011)

- 8.30 Key recommendations for making environmental mainstreaming more effective and systematic in Nepal  
Group' discussion (5 groups x 3-4): discuss 30 mins; report back 30 mins  
9.30 Plenary- What is environmental mainstreaming for Nepal?  
10.30 Coffee break  
11.00 Presentations (2 Cases)  
11.30 Follow Up  
12:30 Closing Ceremony  
13.30 Lunch and Departure to Kathmandu

# Annex 4: Background Paper

## Environmental Mainstreaming in Nepal: An overview of initiatives and experience

Paper presented at “Environmental Learning and Leadership Group Workshop  
Nepal Environmental Mainstreaming Review Initiative(Draft Copy)  
20 – 22 Oct 2011, Pokhara

Jointly Organized by

- (1) Nepal Government– (a) Ministry of Local Development, (b) Ministry of Environment and (c) National Planning Commission,
- (2) UNDP/UNEP – Poverty and Environment Initiative,
- (3) International Institute for Environment and Development,
- (4) Asian Centre for Environmental Management and Sustainable Development, and
- (5) Pokhara University.

Prepared by: Prof Dr R B Khadka, Mr Ajay B Mathema, Ms Pujan Shrestha and Prof Dr A R Joshi

### 1. Background

Environmental mainstreaming is a professed priority of developed and developing nations, espoused through commitments made in international forums. But in practice, their environmental mainstreaming initiatives have achieved limited success. It is evident across the world that environmental problems are getting worse, not better, and all major international indicators continue to track negatively. Nepal has also expressed its commitment to integrate environmental concerns in development planning and decisions, and has already begun to implement a range of initiatives. These are evident in Nepal’s policies, institutional setup, legislative instruments, as well as in projects and plans. They have been mainly focused on-

- a) Restoration or prevention of land degradation, e.g. through afforestation programmes to prevent forest degradation and minimize erosion and land slide hazards, pollution control to prevent health hazards amongst the population;
- b) Management of environmental impacts of development work through institutionalization of the Environmental Impact Assessment (EIA) system, and
- c) Rational utilization of environmental assets for economic development.

Despite these efforts, the environmental indicators for Nepal are yet to improve.

The rapidly degrading natural resource base and widely spreading poverty among Nepalese suggest the necessity to review our environmental mainstreaming initiatives. Nepal is one of the least developed countries in the world and the poorest in South Asia. Estimated per-capita income is US\$562 with a gross domestic product (GDP) at 3.53% (CBS, 2011). The larger portion of the population is poor, with 30% of Nepalese living under the poverty line of US\$ 12 per person per month. With the weak economy, Nepal is supporting a relatively large population –almost 28 million (CBS, 2011). Furthermore, Nepal’s rugged terrain limits utilization of its land resource. Only 27% of the country is potentially arable and only 20% is under cultivation (LRMP, 1986). Though Nepal is endowed with rich biological diversity with valuable faunal and floral species, these are under constant threat. On the one hand, widespread poverty implies continued pressure on the existing

natural resource base, leading to its further degradation. On the other hand, the deteriorating environmental and natural resource base will contribute to further poverty, as people find it more and more difficult to meet their basic resource needs in a sustainable manner. Given this intertwining of environmental degradation and poverty, it is urgent to streamline our initiatives for mainstreaming environmental concerns into the country's development process to achieve sustainable use of existing environmental and natural resources. This paper briefly reviews Nepalese initiatives for environmental mainstreaming in terms of their nature, success, and constraints/challenges.

The International Institute for Environment and Development (IIED) has defined environmental mainstreaming as: "*the informed inclusion of relevant environmental concerns into the decisions of institutions that drive national, local and sectoral development policy, rules, plans, investment and action* (Dalal-Clayton & Bass, 2009)." However, the meaning of environmental mainstreaming can vary considerably, as environment is a cross cutting issue that encompasses many different concepts concerning how we deal with our surroundings and natural resources. For example, the UNDP-UNEP Poverty and Environment Initiative (PEI) interprets environmental mainstreaming specifically in terms of "integrating poverty-environment linkages into national development planning processes and their outputs, such as poverty reduction strategy paper (PRSPs) and Millennium Development Goal (MDG) strategies (Dalal-Clayton & Bass, 2009). Therefore, it is necessary to clarify our own concept for environmental mainstreaming in order to review mainstreaming initiatives of Nepal. Nepal has undertaken efforts to mainstream the environmental in a range of ways through significant and successful initiatives, notably:

- a) Community forestry to manage and protect forest resources,
- b) Conservation of biological diversity with protected area systems,
- c) Environmental impact assessment to safeguard environment from development works.

Though the results of these initiatives can be debated, there is no doubt that they are intricately integrated into the governance of Nepal as well as accepted widely by the society. Therefore, we have evaluated the major environmental mainstreaming initiatives in Nepal based on how effectively they have been integrated in the governance system, using the following factors:

- i. Acceptance at the policy level or initiated by the national Five Year Plan (FYP) of Nepal;
- ii. Enactment of environment related legislation;
- iii. Establishment and/or strengthening of institutional arrangements;
- iv. Availability of human resources and capacity-building;
- v. Undertakings, projects and activities to support the environmental mainstreaming initiative;
- vi. Participation in the initiative of private, public sector and NGOs;
- vii. Research undertaken;
- viii. Political willingness/ high level commitment towards environment related works.

## **2. Environmental mainstreaming initiatives in Nepal**

### **2.1 International influences**

Environmental mainstreaming in Nepal is driven by its commitments made in international forums. Since the 1960s, the international community has been taking steps towards establishing an international moral and legal framework, and standards and norms for sustainable development through treaties, conventions and agreements. This was in response to the realization amongst the international community that population growth, resource consumption and technological advances are threatening degradation of environmental resources. To date, Nepal is a signatory or party to 21 environment-related conventions (ADB, 2006).

Concern about the human environment and development at the global level figured for the first time in discussions at the UN Conference in Human Environment (5-16 June, 1972, Stockholm). Here, a major thrust was given to safeguard the earth's natural resources for the benefit of present and future generations through careful planning or management. The conference called upon UN member countries and peoples to exert common efforts to preserve and improve the human environment for the benefit of all the people and for their prosperity. This recommendation initiated a new vision for the integration of environmental components in plans and policies, and Nepal included environment aspects in the *Sixth Five Year Plan* (1980-85) for the first time in the planning history of the country. In 1980, *World Conservation Strategy* (WCS) (IUCN, 1980) was published with objectives to (a) maintain essential ecological processes and life support systems, (b) preserve genetic diversity, and (c) ensure sustainable utilization of species and ecosystems. The WCS called upon all countries to develop a National Conservation Strategy (NCS). This initiative stimulated the integration of a national policy on environmental management in the 7<sup>th</sup> Five Year Plan (1985- 1990) in Nepal. The plan incorporated a number of policy statements relating to environment and land use. Emphasis was also laid on the importance of public participation in decision-making and on the role of women and non-governmental organizations in environmental management. It also prioritized fulfilling the basic needs of the Nepalese and maintaining natural resources for balanced development. The Government of Nepal translated the concept of WCS for Nepal by adopting and endorsing the *National Conservation Strategy* (NCS) and the *Master Plan for Forestry Sector* (prepared in 1988\_ which emphasize the wise use, protection, preservation and restoration of natural resources.

The World Commission on Environment and Development (WCED) (created in 1983) submitted a report entitled *Our Common Future* (in 1987). This discussed the importance of ecosystems as a resource for development, coining the concept of sustainable development. Furthermore, the consortium of IUCN, WWF and UNEP prepared a report on "*Caring of Earth, A Strategy for Sustainable Living*" in 1991 which was both an analysis and a plan of action. It defined the principles of a sustainable society and recommended actions required for its achievement, such as-

- Respect and care for the community;
- Improve the quality of human life;
- Conserve the earth's vitality and diversity;
- Minimize the depletion of non-renewable resources;
- Keep progress within the Earth's carrying capacity;
- Change personal attitudes and practices to enable communities to care for their own environment;
- Provide a national framework for integrating development and conservation and strategies for sustainability relating to awareness and management of the issues.

These international initiatives instigated a new vision for the formulation of the national environmental policy in Nepal. The 8<sup>th</sup> Five Year Plan (1992-97) reinforced environmental management policies with specific reference to sustainable economic growth and poverty alleviation. It emphasized the need for internalizing the environmental impact assessment (EIA) system, improvement of legislative measures, and conservation of natural resources and promotion of environmental education. The plan introduced the concept of "environmental governance" for the first time (NPC, 2008).

The UN Conference on Environment and Development (UNCED), held during 3-14 June, 1992 in Rio de Janeiro, discussed both existing and emerging environmental issues, including the issues of sustainability and international responsibility/cooperation. The Rio summit was also successful in drawing global attention to the need to forge a path to sustainable development. The participating nations endorsed Agenda 21—an operational document on environment and sustainable development of the 21<sup>st</sup> century- and also signed two legally binding conventions on climate change and biodiversity. Being a party to international environmental instruments, Nepal adopted its international commitments in the form of various national policies-

Nepal Environment Policy and Action Plan (NEPAP) 1993 facilitated integration of environment considerations in the development process to add sustainability dimension (EPC, 1993).

- The 9<sup>th</sup> Five Year Plan (1997-2002) emphasized sustainable resource management and institutional strengthening of line ministries to facilitate their environmental functions (NPC, 1996).
- Being a party to the Convention on Biological Diversity, Nepal prepared a Nepal Biodiversity Strategy (MOFSC, 2002).
- In 2003, the Sustainable Development Agenda for Nepal (SDAN) was prepared based on sustainable development concepts. The action agenda has been translated as policy guidelines in the Three Year Plan (2007/08-2009/11).
- A National Policy on Climate Change has been prepared to minimize its negative impacts. The government launched the National Adaptation Program of Action (NAPA) in September 2010 (MOEnv, 2010). Efforts to benefit from the carbon trade through securing a return from clean energy development have already been initiated under the Kyoto Protocol.

Table 1 lists some of the important conventions to which Nepal is a party, and indicates the status of their implementation.

Table 1: Nepal's international commitments and their status

International commitment	Purpose	Major obligation	Status in Nepal
<b>Ramsar Convention, 1971</b>	To prevent the loss of wetlands	Parties should designate at least one national wetland and ensure conservation and sustainable use of migratory stocks of wildfowl.	<ul style="list-style-type: none"> <li>• Nepal ratified it on 17 April 1988, and National Wetland Policy 2003 was formulated as a part of 10<sup>th</sup> FYP</li> <li>• 9 wetlands sites are included as Ramsar sites in Nepal (Kafle &amp; Savillo, 2009)</li> </ul>
<b>UNESCO Convention for the Protection of the World Cultural and Natural Heritage - World Heritage Convention, 1972</b>	To protect cultural and natural heritage of universal value	To ensure implementation of effective measures for the protection, conservation and preservation of national cultural and natural heritage	<ul style="list-style-type: none"> <li>• Nepal acceded it on 1978</li> <li>• 2 cultural sites (Kathmandu Valley 1979 and Lumbini 1997) and 2 natural sites (Chitwan National Park 1984 and Sagarmatha National Park 1979) declared as the UNESCO world heritage sites</li> <li>• The concept has been adopted by NEPAP 1993 and 10<sup>th</sup> FYP.</li> </ul>
<b>Convention on the International Trade in Endangered Species of wild fauna and flora (CITES), 1973</b>	To protect and regulate the trade of wild fauna and flora and their products	All species threatened with extinction should be legally protected with appropriate measures and trade regulated	<ul style="list-style-type: none"> <li>• Acceded on 18 June 1975, entered into force since 16 Sept 1975</li> <li>• CITES is adopted by different legislation to prevent trade of endangered species - National Parks and Wildlife Conservation Act, Forest Act, Environmental Protection Act 1996, Custom Act, Export Import (Control) Act, police Act, Postal Act, Plant Protection Act, and Aquatic Life Protection Act</li> </ul>
<b>UN Convention on Biological Diversity, 1992</b>	To ensure conservation, sustainable use, and equitable sharing of benefits of biological diversity	To prepare and implement national strategies, plans, and programs, including a national biodiversity action plan, for the conservation of biodiversity under both <i>in situ</i> and <i>ex situ</i> conditions.	<ul style="list-style-type: none"> <li>• Signed on 12 June 1992, ratified on 23 Nov 1993, and entered into force since 21 Feb 1994</li> <li>• Nepal biodiversity Strategy was approved by GON in August 2002</li> </ul>



<b>UN Framework Convention on Climate Change 1992</b>	To stabilize greenhouse gas concentration in the atmosphere within a time frame	Adopt precautionary measures to minimize or prevent the release of greenhouse gases and mitigate the effects of climate change	<ul style="list-style-type: none"> <li>• Signed on 12 June 1992, ratified on 2 May 1994, and entered into force since 31 July 1994</li> <li>• As a party to the Convention, Nepal has recently prepared a National Adaptation Programme of Action (NAPA) on 2010 to identify priority activities that respond to their urgent and immediate needs to adapt to climate change.</li> <li>• The government has also recently formulated a Climate Change Policy, 2011</li> </ul>
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## 2.2 Nepal's National Five Year Plans and climate change

Planned development in Nepal began with the introduction of the first five year national plan (FYP) in 1956. The concept of 'environment' and its protection slowly evolved in the context of national planning and with the endorsement and ratification of various international treaties and conventions (see above). Several programs and plans have been developed and implemented to achieve sustainable development in Nepal.

Table 2 highlights the major environmental consideration included and addressed in Nepal's Five Year Plans.

Table 2: Major environmental mainstreaming initiatives in Nepal's FYP

Five Year Plan	Duration	Major environmental mainstreaming initiatives
<b>1<sup>st</sup> FYP</b>	1956 – 1961	<ul style="list-style-type: none"> <li>• Enactment of forest nationalization act 1957</li> </ul>
<b>2<sup>nd</sup> FYP</b>	1962 – 1965 <sup>1</sup>	<ul style="list-style-type: none"> <li>• Survey of natural resources, forestation and forest demarcation</li> </ul>
<b>3<sup>rd</sup> FYP</b>	1965 – 1970	<ul style="list-style-type: none"> <li>• Sedimentation and water flow measurements in Terai,</li> <li>• Master plan for drinking water and sewerage in Kathmandu Valley, and emphasis on water quality</li> </ul>
<b>4<sup>th</sup> FYP</b>	1970 - 1975	<ul style="list-style-type: none"> <li>• National and sectoral policies related to environment,</li> </ul>
<b>5<sup>th</sup> FYP</b>	1975 – 1980	<ul style="list-style-type: none"> <li>• Emphasis on ecological balance,</li> <li>• Conservation of national forests and wildlife,</li> <li>• Reduction of urban pollution</li> </ul>
<b>6<sup>th</sup> FYP</b>	1980 – 1985	<ul style="list-style-type: none"> <li>• Initiation of environmental impact Studies Project</li> </ul>
<b>7<sup>th</sup> FYP</b>	1985 – 1990	<ul style="list-style-type: none"> <li>• National Conservation Strategy (NCS)</li> <li>• Master Plan for Forestry Sector</li> </ul>
<b>8<sup>th</sup> FYP</b>	1992 - 1997 <sup>2</sup>	<ul style="list-style-type: none"> <li>• Environment management policies integrated with sustainable economic development and poverty reduction,</li> <li>• Establishment of Ministry of Population and Environment (MOPE),</li> <li>• Preparation of EIA Guideline, improvement of legislative measures,</li> <li>• National Environmental Policies and Action Plan (NEPAP)</li> </ul>

<sup>1</sup> Due to the political change in the country, the second plan was introduced only in 1962, and covered only 3 years between 1962 - 1965

<sup>2</sup> The political change occurred in 1990, which caused delay in introduction of 8<sup>th</sup> FYP for 2 years.

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		<ul style="list-style-type: none"> <li>• inclusion of environmental aspects in hydropower, irrigation and industrial development policies</li> <li>• Environmental Protection Act (EPA) enacted</li> </ul>
<b>9<sup>th</sup> FYP</b>	1997 – 2002	<ul style="list-style-type: none"> <li>• Environmental Protection Regulations (EPR),</li> <li>• Sustainable resource management principles (Agenda 21),</li> <li>• Institutional strengthening of line ministries,</li> <li>• Environmental standards on air, water pollution &amp; industrial effluents enforced.</li> </ul>
<b>10<sup>th</sup> FYP</b>	2002 – 2007	<ul style="list-style-type: none"> <li>• Long-term goals of environmental management with better governance, pollution control and sustainable use of national resources introduced,</li> <li>• Emphasis on links between environment and economic development, and internalization of environmental concerns into development plans and programs,</li> <li>• Implementation of national environmental standards.</li> </ul>

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Though environmental components such as forests, water and soil were addressed from the beginning, the term “environment” (covering natural resources and life support systems) was first introduced only in the 6<sup>th</sup> FYP (1980 - 1985).

The 7<sup>th</sup> FYP (1985-1990) provided two fundamental documents, which provided a strong foundation for environmental management works in Nepal: (a) the Master Plan for the Forestry Sector and (b) the National Conservation Strategy. The Master Plan for the Forestry Sector (1989) presented a 25-year policy and plan for this sector. It laid out framework for forestry management through introducing community forestry practices, mainly in the hilly regions and degraded forest areas of Nepal. The National Conservation Strategy (1988) was a significant attempt to formulate a national environmental policy framework for the country. It paved the way for a series of policy pronouncements and programs, such as (a) the establishment of the EIA system, (b) initiation of environmental education at all levels, (c) preservation and restoration of heritage sites, and also (d) provided a solid foundation for environmental planning.

The 8<sup>th</sup> FYP (1992-1997) led to the development of concrete actions for environmental protection by the development of clear environmental policies, implementation of national environmental legislation, development of environmental action plans, and introduction of mandatory environmental assessment for infrastructure projects. In 1993, the Nepal Environmental Policy and Action Plan (NEPAP) was formulated. It was the first programme to comprehensively articulate environmental policies. NEPAP analyzed the country’s environmental issues in a multi-sectoral framework and set forth a strategy for maintaining its natural environment, the health and safety of its population and its cultural heritage as economic development progresses (EPC, 1993).

The Industrial Policy 1992 was also formulated within the 8<sup>th</sup> FYP. It emphasized measures to minimize adverse impacts on the environment during the establishment, expansion, and diversification of industries. The policy opened avenues to formulate guidelines and standards to check and minimize adverse effects of pollution associated with industrial growth (MOI, 1992; ADB, 2006). Nepal’s period plan also paved the way for setting up the institutions for undertaking environmental protection activities. The Ministry of Environment (then the Ministry of Population and Environment, MOPE) was established in September 1995 (MoEnv, 2010), following which a substantial number of environmental laws and regulations were developed.

During the 9<sup>th</sup> FYP (1997-2002), various environmental standards on air, water pollution and industrial effluents were enforced. The Environmental Protection Act, 1997 and Environmental Protection Regulation, 1998 are the two major pieces of legislation for protecting the environment and controlling pollution. These instruments made environmental assessment in the form of Environmental Impact Assessment (EIA) and Initial Environmental Examination (IEE) mandatory

for major development works. With the enforcement of environmental legislation, the line agencies adapted policies incorporating EIA system-

- National Solid Water Management Policy 1996 (MOLD, 1996; ADB, 2006).
- Hydropower Development Policy 2001 (MOWR, 2001; ADB, 2006).
- Nepal Biodiversity Strategy 2001 (MOFSC, 2002; ADB, 2006).
- The Irrigation Policy 1993 (revision 1997) (MOWR, 1993 (revision 1997))
- Water Resources Strategy 2002 (WECS, 2002; ADB, 2006).

The 10<sup>th</sup> FYP (2002-2007) gave high priority to integrating environmental concerns into programme implementation and included actions to introduce more effective environmental management and monitoring systems. The 10th Plan, also introduced the concept of Strategic Environmental Assessment (SEA). However, the process still needed to be properly institutionalized and adequately documented (ADB, 2006). During the preparation of the National Water Plan, 2005, an SEA of the draft plan was carried out to satisfy the donor's requirements. Although there was no legal requirement for SEA in Nepal, the Water Energy Commission of Nepal decided voluntarily to apply SEA to the National Water Plan in order to make it environmentally sound and sustainable. The SEA was carried out based on secondary sources of information and an extensive public consultation with some field verification (Shrestha & Malla, 2004)

The Sustainable Development Agenda for Nepal, 2003 prepared by the National Planning Commission defines sustainable development for Nepal and opportunities and broad goals covering the period to up 2017. The document begins by describing the pathways forward, detailed objectives, and sets out the necessary government policies. The agenda draws upon and conforms to the long-term goals envisaged in the 9<sup>th</sup> FYP (1997-2002), 10<sup>th</sup> FYP (2002-2007), the Millennium Development Goals and the Poverty Reduction Strategy Paper (PRSP), and commitments made by the country in various international forums.

With climate change being a global environmental problem and Nepal being particularly vulnerable to the impact of climate change, the country is currently making efforts to mainstream climate concerns in development planning. The integration of climate change mitigation and adaptation issues within the development process is now a central issue. The Government of Nepal has recently endorsed a Climate Change Policy, 2011. Its main goal is to improve livelihoods by mitigating and adapting to the adverse impacts of climate change, adopting a low-carbon emissions socio-economic development path, and supporting and collaborating in the spirit of the country's commitments to national and international agreements related to climate change. As a party to the United Nations Framework Convention on Climate Change (UNFCCC), Nepal has also completed a National Adaptation Programme of Action (NAPA) in 2010 to identify priority activities that respond to their urgent and immediate needs to adapt to climate change.

## **2.3 Institutional setup for environment undertakings**

There are several national, local, non-governmental and private sector institutions operational at various levels that have played an important role in designing and influencing environmental performance over the years in Nepal.

### **2.3.1 Governmental Institutions (National and Local)**

National institutional development to facilitate the integration of environmental issues in the development planning process started with the establishment of the Environmental Division in 1987 within the National Planning Commission. The Environmental Unit within the NPC was responsible for overseeing and coordinating inter-sectoral activities related to planning, programme budgeting and the monitoring of environment-related actions.

A Parliamentary Committee on Environment was formed on 1990 to advise the House of Representatives in the areas of environment, forests, soil conservation, industry, housing and physical planning. As a legislative body, the Committee had authority to issue directives for actions on environmental protection. Following that, the Environmental Protection Council was established in 1992, as a high-level national body under the chairmanship of the Prime Minister and with representatives from various sectors. It was given the role to provide guidance on the formulation of environmental policies and on the management of natural resources.

An important step towards prioritization and integration of environment across other sectors was the establishment in 1995 of the Ministry of Environment (as the Ministry of Population and Environment, MOPE). MOPE was the focal point for actions related to environmental conservation, pollution prevention and control and conservation of national heritage as well as for the preparation of acts, regulation and guidelines and for the effective implementation of commitments expressed in regional and international levels. Dismantling the then Ministry of Population and Environment in 2004, the Division of Environment was relocated within the Ministry of Science and Technology and renamed as the Ministry for Environment, Science and Technology. The Ministry of Environment was finally formed in 2009 after the issue of the Regulation of Government of Nepal (Work Division, Second amendment). Currently the ministry's overall aim is to promote the sustainable development of the country through environmental protection.

Apart from the Ministry of Environment, there are various other line agencies and local bodies responsible for environmental management of the country. For example-

- a) The National Planning Commission (NPC) is the advisory body for formulating development plans and policies and is responsible for allocating resources for development plans, policies and programs related to environment.
- b) The Ministry of Forest and Soil Conservation (MFSC) is involved in planning, policy formulation and monitoring of forest and soil conservation related programs including wildlife and biodiversity conservation
- c) The Ministry of Irrigation and the Ministry of Energy have responsibility for the conservation, regulation and utilization of water resources for various purposes such as irrigation and energy development.
- d) The Ministry of Industry, Commerce and Supplies (MOICS) is responsible for the promotion and implementation of industrial and commercial policies, including those pertaining to industrial pollution and mineral exploration.
- e) The Ministry of Physical Planning and Works (MPPW) is responsible for the development of the national strategic transport network, particularly the road network, improvement of housing and urban environmental developments and increased access to the provision of water supply and better sanitation facilities.
- f) The Ministry of Local Development (MLD) has the role of coordination, cooperation, facilitation and monitoring and evaluation of activities undertaken by local bodies for ensuring sustainable, balanced and broad-based development efforts.

Within the enactment of the Local Self-Governance Act in 1999, the responsibility of environmental management and pollution control was devolved to locally elected bodies such as District Development Committees (DDC), Village Development Committees (VDC) and Municipalities responsible for environmental management at the district, village and municipality level respectively. Although the Act requires the devolvement of the responsibilities, there the national government still exercises significant control over the administrative management of local governments, and the line ministries have not developed plans for the orderly transfer of responsibilities to local bodies, nor dedicated appropriate resources for local capacity-building (WorldBank, 2007)

### **2.3.2 Judiciary**

The judicial bodies in Nepal include the Supreme Court, Appellate Court and the District courts. The Constitution (Article 88(2)) has conferred powers to the judiciary which are important for the enforcement of legal norms related with sustainable development (ADB, 2006). Although Nepal doesn't have a 'green bench' in the judiciary to deal with environmental issues, the court has played a key role in establishing environmental policies. The Supreme Court has issued several important court decisions directing executive branch agencies to adopt appropriate environmental standards and measures for air, water and noise pollution (WorldBank, 2007)

### **2.3.3 Educational Institutions**

Educational institutions in Nepal have played an important role in incorporating the concepts of environment in the formal education system - in schools, colleges and universities. Environmental education has been promoted with the teaching of environmental subjects and concepts at various levels in schools and in specialization and degree courses in the universities. At the school level, environmental education is included in a separate course entitled 'Health, Population and Environment', and the universities (Kathmandu University, Tribhuvan University and Pokhara University) have expressed their commitment to promote environmental awareness through education in their undergraduate (B.Sc) and graduate (M.Sc) degrees.

### **2.3.4 Private Sector and NGO**

Various other organizations such as private sector entities, civil society and non-governmental organizations have demonstrated their commitment to promote environmental awareness and to improve environmental conditions and have complemented the government's effort to manage and improve environmental conditions. For example, private industries under the Environmental Sector Program Support (ESPS) demonstrated their commitment to environmental management by implementing the concept of cleaner production, energy efficiency, occupational health and safety so that industries could save on resources and reduce pollution load. Similarly, several local and international non-governmental organizations are working to improve environmental management, awareness and conservation efforts. There are 1,035 non-governmental and three international non-governmental organizations working on environmental related work in Nepal, and 14,337 community forest user groups that are managing community forests - one of most successful examples in the world for community-based resource management (WorldBank, 2007)

## **3. Case Studies**

There have been several efforts in Nepal to formulate plans and programmes that integrate environmental concerns into development initiatives. And over the years, an impressive number of stakeholders and institutions have emerged to lead and assist environmental and resource management. Below we describe some interesting cases and best practices on the role of government, private sector entities and community based organizations in promoting natural resource management and sustainable development.

## Case Study 1- Government Initiative

### **Environmental Impact Assessment (EIA) System**

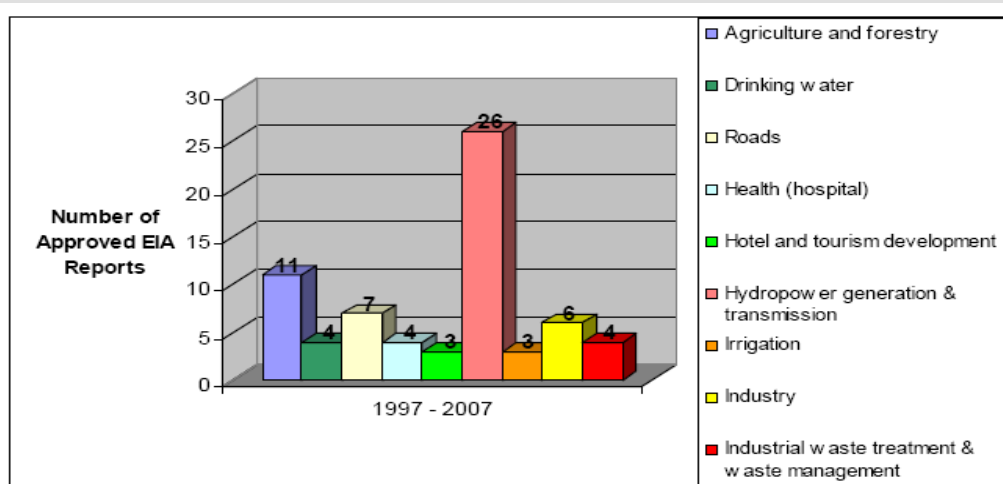
Environmental Impact Assessment (EIA) has been one of the main policy instruments in Nepal to combine the aims of conservation and development. In the history of national planning in Nepal, the need for EIA for major infrastructure projects was first mentioned in the Sixth Five Year Plan (1980-1985). Between 1982 and 1998, the government's "Environmental Impact Study Project" (EISP), under the Ministry of Forest and Soil Conservation, prepared draft documents on environmental policy, environmental act and guidelines and conducted EIAs on several ongoing infrastructure projects. However, these project-level efforts were ineffective due to a lack of interest amongst decision-makers and politicians

The first national-level policy on environment management was incorporated in the Seventh Five Year Plan (1985-1990). The policy emphasized the need to carry out EIA for all major development projects in key sectors such as tourism, water resources, infrastructure, forestry and industry. However, the EIA policy was not implemented to the extent expected. EIA was carried out in hydro-power development, irrigation and drinking water and road construction projects to meet stipulations set by donors and in loan agreements rather than to satisfy a mandatory requirement of the government. In this period, the Nepal Government/National Planning Commission (NPC) and IUCN developed and endorsed the National Conservation Strategy (NCS) which focused on the sustainable management of natural resources and the protection of the environment.

The Eighth Five Year Plan (1991-1995) and the Nepal Environmental Policy and Action Plan (1993) re-emphasized the need for an EIA system to integrate environmental concerns into the development process. The Eight Five Year Plan anticipated the establishment of a national system for EIA and stipulated that EIA be conducted at the feasibility study stage. Considering mandate provided by the NCS, the first National EIA Guideline was endorsed in September 1992 and gazetted in July 1993.

The environmental assessment system of Nepal was introduced successfully in 1997 through the Environment Protection Rules (EPR). These made Initial Environmental Examination (IEE) and Environmental Impact Assessment (EIA) mandatory for both government and private sector projects. Prior to this, since the introduction of the National EIA Guidelines in 1993, IEE/EIA was mandatory only for the governmental sector. EIA/IEE is the only tools that are used to ensure that environmental issues are addressed in the construction and implementation of infrastructure and other development projects. Some of the first EIAs undertaken in Nepal were in the hydropower sector, e.g. for the Arun III and Kaligandaki hydropower projects. These were initiated in the early 1990s prior to the enactment of the Environment Protection Act and Rules. A number of guidelines and manuals have been prepared sector line agencies to improve and customize the environmental assessment process to their sector.

**Figure 1: Number of EIA studies approved by sector**





To date, several EIA studies have been conducted and been approved by the government for different types of development projects – the highest proportion being for hydropower related projects. Although the EIA system is not as effective as it could be, over the years, Nepal has gained considerable experience in conducting EIA studies and in ensuring that the negative environmental impacts from development projects are minimized and mitigated.

Source: (Bhatt & Khanal, 2009) and (WorldBank, 2007)

## Case Study 2- Private sector Initiative (Industries)

### **Implementation of the concept of sustainable production for economic benefit and pollution prevention**

During the past decade, a few pilot projects have been initiated through collaboration between the Government of Nepal and UNIDO/World Bank to promote energy efficiency and cleaner production. These have successfully demonstrated that measures to improve the efficient use of energy and materials can produce economic benefits as well as an improvement in the environment. However, the adoption of these tools by the industrial sector had been very slow.

In 1993, the Ministry of Industry, Commerce and Supplies (MOICS) (it became the Ministry of Industry (MOI) in 1998) initiated an Industrial Environmental Management Project with technical assistance from the World Bank. This focused on energy audits of industrial boilers, industrial equipment, and hotel lighting and demonstrating energy saving options. Following the completion of this project, in 1998, the MOI established the "Industrial Energy Management Project" to provide energy management services to industries. Later, in 2000, a component on energy efficiency was added to the DANIDA-supported Environmental Sector Support Programme (ESPS) to continue the work. As a result, there has been some continuation of work on energy efficiency and this has also yielded some good results. Some of the energy saving potentials identified during energy audits performed in 332 industries (manufacturing and services). The energy savings achieved in 202 monitored industries (manufacturing and service) is present in Table 3.

**Table 3 Energy savings achieved in the industries**

Energy Source	Energy Saving	
	Potential	Achievement
Electricity in KWh	12,004,761	4,215,794
Fuel in litres	2,801,031	935,472
Fuel in MT	39,377	10,145
Thermal energy in Mkal	148,127	59,987
GHG Reduction in MT	66,508	24,827

The ESPS was launched in 1999 and implemented Cleaner Production interventions in 332 manufacturing and service industries (249 small, 48 medium and 35 large). An evaluation report of this completed programme component shows that monitoring was carried out in 177 industrial units and it demonstrated reduction of 345,000 cubic m. of effluent/year, 9,500 MT of solid waste/year and 24,000 MT of greenhouse gases/year together with improvement in Occupational Health and Safety conditions. However, the monitoring also showed that out of over 6,460 cleaner production options recommended by the Cleaner Production intervention of the ESPS project, Only 2,126 (33%) had been implemented. Most of the implemented options were low- and no-cost options, such as use of energy saving lamps, translucent sheets, self-closing water hoses, oil and grease traps, etc. Industries were very reluctant to implement an option demanding high investment or an option related to environmental benefit or working environment improvement.

Pollution prevention approaches such as cleaner production and energy efficiency are fairly new concepts in Nepal; and the implementation of some recommended options has clearly demonstrated economic benefits to industry providing, at the same time, high environmental benefits. However, industries are very reluctant to

implement the recommended pollution prevention options. There is a need to further educate industrialists, build their confidence in this sector and support them in identifying and implementing ways to cut their waste and their costs.

*Source: (ENPHO, 2007)*

### **Case Study 3- Private sector Initiative (Educational Institutions)**

#### **Mainstreaming of Environmental components in formal education**

The Eighth Five Year Plan (1992-97) stressed the need for environmental education and made it mandatory at all levels of formal and non-formal education, including in service training extension service, technical education and vocational training programs. For formal education in Nepal, three main approaches have been used for the introduction of environmental components in the existing curricula: infusion, integration, and separate subject approaches.

#### **School Level**

The New Education System Plan 1973 incorporated some aspects of environmental protection in the school curriculum. Subsequently, based on the recommendation of National Education Commission (1992), environmental education was included in the curriculum within "Population Studies and Health Science".

##### *Primary Level (grade i to v)*

Some important elements related to environment are integrated in the subjects of the primary school curriculum for grades i to v, under themes such as the home and school environment, the earth surrounding the village, and field and forest environment.

##### *Secondary Level (grade vi to xii)*

Environmental concerns are addressed in social studies courses in lower secondary level. The curriculum is designed to develop students' understanding of the relationship between man, physical, factors, plants and animals. Course units related to population (population status, cause of population growth, impact due to population on environment) and environmental conservation (status of natural and cultural resources, environmental factors, interrelation between population and environment, measures to control environmental issues) have been included in the curriculum.

In grade ix and x, environmental education is offered as a separate course entitled "Health, Population and Environment". The syllabus covers the concept of health, population and environment; family life education; determination of population change; natural resources; caring of the Earth; reproductive and sexual health; environmental health and pollution, consumer's health, etc.

In the Higher Secondary Level (grade xi to xii), the curriculum addresses three aspects of environment: (a) the national education objectives related to environment; (b) the country's growing concern about environmental degradation; and (c) the academic opportunities for study of environment subject.

#### **Higher Education**

Environmental components are integrated in a number of courses such as applied science; humanities and management; education; and the technical disciplines of engineering, agriculture science, medicine and forestry. Three Universities (Tribhuvan, Kathmandu and Pokhara) are offering separate environment courses, i.e. environmental science and environmental management at Bachelors and Masters levels.

##### *Bachelor Level*

The objectives of the courses are to produce medium-level manpower in the field of environment, which can serve at the field level as well. For example, the KU syllabus (cr. hr148) covers all important environmental components with more emphasis on scientific knowledge and application than management aspects.

### *Master Level*

The post-graduate courses focus on national and international perspectives and issues along with policies and plans. All three universities offer a similar range of courses covering important environmental topics (identified by key words relating to environment). For example, the syllabus of Pokhara University covers all important areas needed for environmental management including new subjects such as environmental engineering, environmental management systems, strategic planning, urban environmental management and environmental governance and diplomacy.

*Source: (Joshi, 2011)*

## **Case Study 4- Community Based Resource Management**

### **Community-based forest management**

Nepal was an early leader in initiating innovative programs of forest management such as community forestry, leasehold forestry and parks-and-people programs aimed at involving local communities. The Nationalization Act of 1957 brought all forest land as well as all trees planted on the private land under government ownership. The forests in Nepal were protected prior to their nationalization because the access was managed and/or limited by the common property regimes. The nationalization of the forests opened up free access leading to exacerbated degradation of the forest cover.

The first significant step toward adopting community forestry approaches discussed during the Ninth Forestry Conference, held in Kathmandu in 1974. The National Forest Act of 1976, and its subsequent amendments of 1977 and 1978, attempted to return some degree of ownership and control over forest resources to the people through *Panchayat*<sup>3</sup> forestry. These programs were not very successful, and the Community Forestry Act was subsequently introduced in 1993 to achieve the same objectives. By 1999, rapid expansion of this program had resulted in the Forest Department handing over over 620,000 ha of forest area (which it had previously managed) to 8500 forest user-group committees to manage.

Table 4: Summary of User Groups, Areas and Household involved (as of March, 2006)

<b>Management Models</b>	<b>User groups</b>	<b>Area (ha)</b>	<b>Households</b>
<b>Community Forests</b>	14,300	1,187,000	1,640,239
<b>Leasehold Forests</b>	2,524	11,109	18,496
<b>Buffer Zone Community Forests</b>	57	15,924	19,362
<b>Collaborative Forest Management</b>	1	3,139	33,000
<b>Total</b>	<b>16,840</b>	<b>1,217,172</b>	<b>1,711,097</b>

Based on the 1988 Master Plan for the Forestry Sector, the Forest Act of 1993 authorizes District Forest Officers to hand over any part of a national forest to a user group in the form of a community forest. Communities then develop an operational forest management plan, which is subsequently ratified by the Forest Department. This enables them to conserve and manage these forests, and sell and distribute products, including forest timber, by independently setting the prices. An amendment to the Act in 1998 mandated that the user group should invest at least 25% of its income in forest development and conservation activities. Recent amendments have attempted to place further restrictions on the harvest and sale of forest products, and distribution of the resulting income.

During the past 28 years of community forest implementation, almost 1.2 million hectares of national forests (25 percent of existing forests) has been handed over to about 14,300 local community forest user groups. The user groups cover about 35 percent of the country's total population and the process has led to better forest condition, better participation and income generation for rural development and institution-building at grass root level in Nepal.

*Source: (Nagendra, Karmacharya, & Karna, 2005) and (Kanel, 2006)*

<sup>3</sup>The **panchayat forestry** was a kind of community based forest management system in Nepal, designed during Panchayat regime in Nepal (1960 - 1990). In this system, management and utilization of forest within the administrative boundary of the Panchayat (equivalent to current VDC) was carried out by the political committee – known as Panchayat. The Panchayat was elected directly by the local residents.

## 4. How effective is environmental mainstreaming in Nepal?

There has been growing concern and awareness about environmental issues in Nepal over the years as evidenced by an increasing number of commitments to improve the country's environment. For example: the formulation of environmental policies and legislation, establishment of environmental units and institutions, increased private sector involvement in matters related to environmental protection, emergence of an active forum of environmental journalism, introduction of environmental courses and degrees at educational institutions, and a mandatory requirement to conduct EIA/IEE of many developmental projects.. But despite such concern, the quality of Nepal's environment hasn't actually improved and its sustainability has not been adequately addressed(NPC, 2010). Although the government has formulated comprehensive sets of policies, plans and programs, their effectiveness has been below expectations and the policies have failed for several reasons: an inadequate focus on cross-cutting issues, continuous intervention by political parties, the inability of national advisory bodies to function properly, the inability of policy institutions to implement policy and, most important, the lack of adequate resources - financial, human and technical(ADB, 2006).To be effective, environmentalmainstreaming must permeate all phases of decision making, planning, execution and management of environmental matters.

Below we discuss several reasons for ineffective mainstreaming:

***Inadequate fulfillment of international obligations.*** Though Nepal has signed a number of treaties, conventions and protocols, it has not satisfactorily met its obligations to them by enacting required national legislation or taking necessary actions. For example, The Ramsar Convention has been implemented in only a few of Nepal's identified wetland systems, but its conservation works are not carried out effectively. Currently, the wetlands are reported to be under pressure from sedimentation, encroachment and agricultural expansion, pollution, overuse of wetland resources, and eutrophication (Kafle & Savillo, 2009). The most-serious constraints on fulfilling Nepal's international commitment are (a) lack of policy regarding coordinating bodies, (b) inability to translate the policies into specific laws, (c) failure to specify the roles and responsibility of agencies involved, and (c) absence of political willingness and/or political priority.

***Inability of policy-making institutions to implement policy.*** Key institutions like the National Planning Commission, Ministry of Environment, and other line agencies have not been proactive in implementing approved policies. For example, despite tremendous efforts to prepare and secure approval of the Nepal Biodiversity Strategy and the National Water Plan, these policies have not been implemented.

***Lack of adequate resources.***Lack of sufficient skilled human resources and inadequate budgetary allocationsare serious constraints which have dramatically reduced the effectiveness of environmental mainstreaming efforts. The EIA system in Nepal has a well-structured policy framework, an established institutional set-up, is widely practiced and familiar to all walks of society. However, the system is unable deliver expected results. Staffing levels in the EIA section of the Ministry of Environment (MoEnv) and its line agencies are inadequate. Environmental monitoring as well as auditing of project implementation has been poor because MOEnv has never been funded to undertake these tasks. Similarly, sectoral agencies have been unable to fully implement EIA regulations due to lack of funds and inadequate infrastructure capacity. Agencies with other (non environmental) mandates have only had enough capacity to fulfill their own priorities- so environmental requirements have taken second place and, more often than not, left unattended.

***Inadequate environmental information.***Environmental data are critical for scientific understanding of environmental status and trends and access to environmental information is necessary for informed decision-making. In a developing country like Nepal, where concern about the

environment is a recent phenomenon, availability of adequate environmental information and its management is clearly a big challenge. In Nepal, there is neither a central record of environmental information or meta-information nor a comprehensive list of data sources. Environmental publications and reports and information tend to remain with the agencies that generate them with no clear mechanism to share and promote access (ADB, 2006). There is a need for a strong information base on all aspects of Nepal's environment and that must be collected systematically from multi-sectoral environmental agencies and analyzed and presented in a timely manner (ADB, 2006). Integration of environmental concern into decision-making is only possible with well developed and managed environmental information bases.

**Political willingness and/or disturbance.** The political instability that has plagued Nepal for the last two decades has also played a role. Agencies have found it difficult to address environmental problems comprehensively because of frequent changes in senior staff and political interference in program implementation. Furthermore, political willingness and commitment towards environmental works have fluctuated, and the national priority tends to focus on security, the peace process, and poverty which has recently become a serious issue following 12 years of civil armed conflict.

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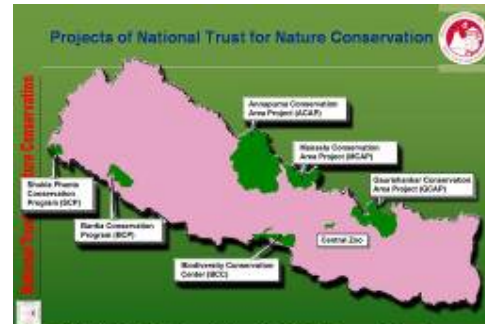


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# Annex 5: Presentations of the Workshop

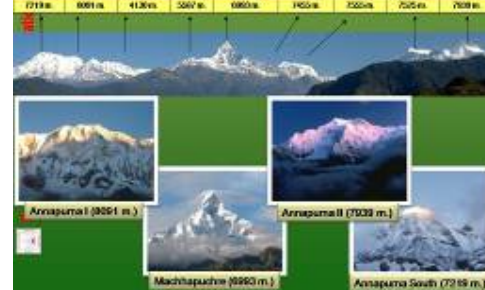
## 1. Annapurna Conservation Area Project (ACAP)



Established in 1982 by a legislative Act of the Parliament of Nepal as an autonomous, non-profit, non-governmental organization

Mountain Biodiversity Hotspot and priority conservation area

Annapurna Peak	Annapurna I	Annapurna I (North)	Madi (East)	Machhapuchhre (North)	Annapurna (North)	Annapurna II	Annapurna III	Annapurna IV
7556 m	8091 m	8186 m	5567 m	6980 m	7556 m	7525 m	7525 m	7525 m



The highest glacier lake in the world



The only protected area in Nepal where all 8 Himalayan pheasants of Nepal are found



Contains Hindu most pious temple - Mukti Nath and numerous Gumbak of Buddhist

**Rich biodiversity and culture**

Home to diverse, endangered and endemic species of flora and fauna

Home to over 10 ethnic groups of Diverse culture and way of life

Plants:	1,226
Mammals:	102
Birds:	463
Reptiles:	40
Amphibians:	23
Butterfly:	247

Population:	85,387
Women:	45,245
Men:	40,142
Household:	16,880



**Dependence on natural resources**

**Goal**

"Conservation of the rich biodiversity and cultural heritage and attainment of sustainable living conditions and improved livelihoods for the local people"

**Objectives**

- To conserve the natural resources of the Annapurna Conservation Area for the benefit of the present and future generations;
- To bring sustainable social and economic development to the local people;
- To develop tourism in such a way that it will have a minimum negative environmental impact.

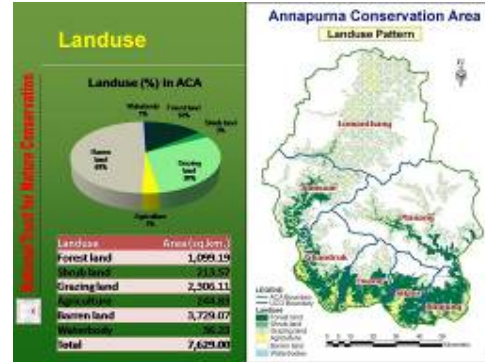
**Rich biodiversity and culture**

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Population:	85,387
Women:	45,245
Men:	40,142
Household:	16,880





### Guiding principles

- People's participation**
  - Ensure effective participation of local people
  - Ensure inclusion of Socially Excluded Groups (SEGs) and women Groups
- Catalytic role**
  - Build managerial (leadership, admin and account) and technical capacity of local community
  - Linkage with external organizations
- Sustainability**
  - Technical/managerial sustainability
  - Financial sustainability

### Approaches in Sustainable Tourism Management

### Programmes and activities

- Natural Resources Conservation
- Alternative Energy
- Tourism Management
- Conservation Education
- Community Infrastructure Development
- Agriculture & Livestock Development
- Gender Development
- Cultural Heritage Conservation

### Institutions

Local Institutions	Total Inst.
Conservation Area Management Committee	57
Tourist Management Committee	115
Local Market Groups	204
Conservation Farmers	110
Saving and Credit Groups	18
Tourism Management sub-Committee	47
Community Management sub-Committee	17
Micro Hydro Management sub-Committee	13
Conservation Education School	77
Green Forest Club	79
Sustainable Conservation Management Committee	9
Wild Deer Management sub-Committee	1
Livestock Management sub-Committee	7
Waste Development sub-Committee	5
Preparation for health and safety	8
Vegetables and production group	2
Herdsman Management sub-Committee	8
<b>Total</b>	<b>607</b>

### Natural Resources Conservation

- CAMC and PWC Formation and Strengthening
- Management of Natural Resources
- Forest Nursery and Plantation
- Wildlife Conservation
- Research, Survey and Documentation

### Conservation of Natural Resources.....

**Species new to Nepal**

### Alternative Energy






- Micro-Hydro Electricity
- Kerosene Depot
- Solar Energy
- Solar Dryer
- Solar Water Heater
- Bio-Gas
- Fuel-wood Saving Devices

### Microhydro in ACA

District	Inst.	Micro Hydro Capacity
Barpak-10-001		
Barpak-10-002		
Barpak-10-003		
Barpak-10-004		
Barpak-10-005		
Barpak-10-006		
Barpak-10-007		
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Barpak-10-100		

### Tourism Management



- Tourism Management sub Committees
- Tourism Awareness Camps
- Trainings / Exposures
- Tourist Information Centres
- Disporting
- Waste Management
- Village Tourism
- Safe Drinking Water

### Tourism Management...






#### Safe Drinking Water Scheme

- 17 stations along the Round Annapurna Trek
- Scheme reduces about 25,000 plastic water bottles per year from entering into the ACA
- Water is cheaper than bottled mineral water
- Contribution towards better health, income and environment


### Conservation Education

- Conservation Education in schools
- Green Force Clubs Formation
- Study tours/ Exposures
- Conservation Awareness Camps
- Training and Workshops
- Model Camp

### Community Infrastructure Development

- Drinking Water Scheme
- Trial Construction
- Bridge Construction
- School Building Construction
- Community Building Construction
- Health and Sanitation












### Agriculture and Livestock Development

- Multipurpose Nurseries and Demonstration Plots
- Network of Conservation Farmers
- Organic Farming
- Training and Workshop
- Livestock Development
- Cash Crop Production

### Agri.....

#### Tea Farming in Lawang

- Tea plantation in 20 hectares (178 farmers)
- Annapurna tea production and export sub-committee
- Average annual income:
  - Current - NRs. 2,540/year/Rupiah, expected to reach NRs. 12,400 after the plants mature
- Processing plant establishment cost: NRs. 4.8 million
- First orthodox tea produced by washing and drying methods in Nepal, which is run by electricity
- Production started from 2005
- Income per year: NRs. 700,000 (last year)
- Break even expected in 4-7 yrs
- Export in Germany - 676 kg (last year)
- Demand in Germany - 3000 kg/year





### Gender Development

- Women's Group Formation and strengthening
- Education / Exposure
- Adult Literacy Classes
- Depends to Students
- Skill Development
- Dry Care Centre
- Micro Enterprise Creation
- Saving and Credits







### Challenges/issues

- Rival with the ACA - employment & tourism - alternative route
- MPPS harvesting - Mahal & BA
- Hydro power - dia
- Tourism - carrying capacity








### Challenges/issues

- Environmental impacts - deforestation, climate change, air and water pollution
- Wildlife harvesting - Minkai, & B.A.
- Hydro power - EIA
- Tourism - carrying capacity



## 2. National Conservation Strategy (NCS)

### National Conservation Strategy for Nepal: Environmental Mainstreaming Initiatives

Shree Govind Shah  
Environmental Planning Specialist  
Nepal – Environmental Learning and Leadership  
Group Workshop  
20-22 October, 2011 Pokhara, Nepal

### The National Conservation Strategy for Nepal (NCS – Nepal)

- Nepal endorsed World Conservation Strategy in 1980; made a high level decision to prepare Nepal's Conservation Strategy in 1981; published a prospectus in 1983; developed NCS for Nepal in 1987 with IUCN technical assistance in 1987 and endorsed in 1988.
- The process involved extensive public consultation at all levels; preparation of technical papers followed by review workshops; draft NCS preparation reviewed by various experts.

### NCS for Nepal - Cont

#### Field Activities

- NCS for Nepal provides sectoral analyses on natural environment and economic activities and proposes the Conservation Action Agenda on institution, organisation and administration, conservation awareness, research inventory and directed studies, policy, and resource planning.
- It also proposed Vanguard Programmes comprising closely related activities – integrated and implemented in the field in four geographical regions; focused on conservation of land, water and forests.

### Implementation of NCS -Cont

- Environmental Law
- Heritage Biodiversity Conservation
- NCS/IP implemented its programme in collaboration with key stakeholders/partners from government institutions, NGOs, CBOs, traditional institutions, IUCN member organisations (KMTNC, NHS, NEFEJ, ECCA) as well as donor communities
- NCS/IP initiated to set the foundation for action in environment conservation through institutional strengthening, awareness building, elaboration of concepts, legislation, plans, action plans, guidelines and manuals

### Presentation

- The National Conservation Strategy for Nepal
- Implementation of NCS
- Environmental Mainstreaming of NCS
- Reasons for Integration
- Constraints

### NCS for Nepal - Cont

- NCS for Nepal contains principles which reflect the real value of the natural environment expressed in terms of human needs: material, spiritual and cultural.
- The conservation spectrum consists of four elements: wise use, protection, preservation and restoration. The main objectives:
  - Ensure sustainable use of Nepal's land and renewable resources
  - Preserve the biological diversity and enhance its productivity and production
  - Maintain essential ecological and life support systems e.g. protection of water and air, soil regeneration etc
  - Satisfy the basic needs of the people of Nepal, both present and future generations; designed to support Royal directives on Basic Minimum Needs by 2000.

### Implementation of NCS

- The National Planning Commission with technical assistance from IUCN designed the NCS for Nepal Implementation Project (NCS/IP) after extensive consultation with various relevant government and non-government organisations.
- NCS/IP aimed at integrating environment into development system. The following programmes were undertaken:
  - Environmental Education and Communication
  - Environmental Impact assessment
  - Environmental Planning

### Implementation of NCS -Cont

- NCS/IP produced numerous survey reports and documents, proceeding of workshops, environmental education resource materials and books for primary education, EIA guidelines at national and sectoral level, national and local level environmental planning guidelines, policy documents e.g. Nepal Environment Policy and Action Plan, Regulating Growth in Kathmandu Valley, legislative and institutional framework, books on ecotourism and wetlands management



### Implementation of NCS -Cont

- Between 1991 and 1996, NCS/IP produced altogether 190 documents: environmental education and communication (73), environmental impact assessment (57), environment planning (24), environment law and policy (2), and Heritage and biodiversity conservation (34)

### EM of NCS - Cont

- Environmental education courses are developed and integrated into B. Ed. programme of TU
- Government and NGOs integrated environmental concerns in non-formal education training programmes. Environmental education packages are used by training institutions
- NEFEJ propagated population growth and environmental degradation, conservation issues and sustainable development concerns among rural population through paper and TV media.

### EM of NCS - Cont

- Involvement of Environmental Core Group, an intersectoral network comprised of representatives from various government and non-government organisations in developing environment planning, EIA guidelines and other initiatives have played important role in establishing and activating environmental section/Unit in many organisation.
- The participatory approach adopted by NCS/IP promoted a sense of ownership over their work they were involved in and provided a network of environmental stakeholder advocating environment and conservation within and outside their organisation.

### EM of NCS - Cont

- Nepal prepared Nepal Environmental Policy and Action Plan in 1993 to address a number of serious environmental challenges. It represents government's firm commitment to continuing efforts to incorporate environmental concerns into the country's development process. NCS/IP coordinated the NEPAF preparation.
- NCS for Nepal recommended a National Council for the Conservation of Natural and Cultural Resources. The government constituted Environment Protection Council, a policy-making body at the political level in 1992 under the chairmanship of the Right Honourable Prime Minister with representatives from concerned sectors e.g. government ministries, academic institutions and NGOs. In the parliament, a Natural Resources Management Committee has been constituted.

### Environmental Mainstreaming of NCS

- The NCS has been the major environmental mainstreaming initiative in Nepal. NCS/IP pioneered in integrating environmental and conservation issues in government policy, strategy, plans, programmes and activities.

### □ Environmental Education and Communication

- Environmental concerns are incorporated into formal education system with a view to influence student's attitudes and behaviours towards the environment.
- Ministry of Education has integrated environmental concerns into the text books for primary school; prepared population and environmental education, science and environmental education & environmental science text books for secondary school.

### EM of NCS - Cont

### □ Environmental Impact Assessment

- NCS/IP initiated a national system of environmental assessment for integration into development planning, combining environmental conservation with economic development
- NCS/IP prepared National EIA Guidelines through a participatory process involving participants from government agencies, NGOs and private sector. Government endorsed National EIA Guidelines in 1992 and gazetted in 1993. The project-led EIA has been the most direct and effective means of combining the aims of conservation and development.

### EM of NCS - Cont

### □ Environment Planning

- Government incorporated a chapter on 'Environment and Resource Conservation' in the 8<sup>th</sup> Five Year Plan (1992-1997). It incorporated the NCS concept such as reconciliation between conservation and development as a major requirement for human survival, and its emphasis on maintaining and improving the productivity of natural resources. Earlier in the 6<sup>th</sup> Plan (1980-85) and in the 7<sup>th</sup> Plan (1985-90), environment and land use policy was included as separate section.
- The process of integrating environment in periodic development plans continued with emphasis on environment and sustainable resources in the 9<sup>th</sup> Plan (1997-2002) and population, environment and natural disaster management in the 10<sup>th</sup> plan (2002-2007).

### EM of NCS - Cont

### □ Environmental Law

- NCS/IP initiated environmental regulatory framework in the country, and submitted Environment Protection Bill to the government in 1992. NCS/IP and the recently formed the Ministry of Population and Environment in 1995 redrafted the bill that led to the enactment of Environment Protection Act (EPA) in January 1997.
- Environmental protection regulations were promulgated under the EPA 1997. Government passed the Environmental Protection Rules in June 1997 which translated legislative intent into formal regulations and requirements and procedures that are to be followed while preparing and approving EEE or EIA of development proposals.

### EM of NCS - Cont

#### Heritage and Biodiversity Conservation

The major initiatives are:

- ❑ A National Register of Heritage Sites and a computerised data base of over 1250 sites outside of Kathmandu Valley.
- ❑ Habitat Classification document based upon geophysical and biological classification and vegetation types.
- ❑ Biodiversity data base of protected species, protected areas, and heritage sites.
- ❑ Wetland inventory for Tarai region and establishment of a National Wetland Database

Government organisations, NGOs and other agencies involved in heritage and biodiversity conservation are using the data and information while developing plans.

### Reasons for Integration -Cont

- ❑ Nepal formally joined the global union of IUCN as a State Member in 1973 and endorsed the World Conservation Strategy (WCS) prepared by IUCN in 1980. WCS highlighted the need for preparation and implementation of National Conservation Strategy.
- ❑ Direct involvement of higher authority, the then Prince Gyanendra Bir Bikram Shah, an enthusiast for nature conservation, in the decision of WCS endorsement and to initiate the formulation of NCS for Nepal facilitated preparation of a prospectus in 1983 and formulation of NCS in 1987.
- ❑ NCS for Nepal was designed to support the 7<sup>th</sup> Five Year Plan and the objectives stated in the Royal directives concerning basic minimum needs by the year 2000.

### Constraints

- In addressing the question of integration, the NCS for Nepal does not recommend the establishment of a new super ministry, major changes in legislation or vast expenditures of money.
- Since mid nineties many donor agencies initiated project-led activities and they had their own environmental requirements which were not collaborated with NCS/IP. They made some investment on environment management.
- NCS for Nepal omitted investment in environmental restoration and management in terms of economic return.

THANK YOU VERY MUCH

### Reasons for Integration

- Government's commitment at higher level to integrate environmental concerns into country's development agenda, the involvement of National Planning Commission –an apex body for framing development policies and planning periodic plans, and a wide participation of government institutions and their organisations, academic institutions, major NGOs and private sector in the process of preparing policy, strategy, guidelines and action plan documents could be considered important factors in environmental mainstreaming.

### Reasons for Integration -Cont

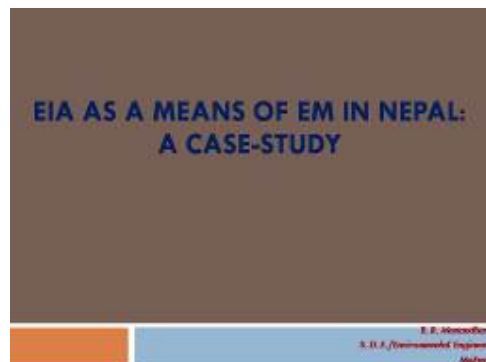
- ❑ The NCS for Nepal made full use of existing government institutions and structures, IUCN members e.g. King Mahendra Trust for Nature Conservation, Nepal Heritage Society, Nepal Forum of Environmental Journalists and Environmental Camps for Conservation Awareness, major NGOs, CBOs, and traditional institutions during project formulation and implementation; a wider participation and recognition.
- ❑ Some of the NCS/IP outputs which were integrated into government policies and action plans were also the interests and requirements of major donor agencies such as World Bank (NEPAP), ADB (EIA regulatory framework) and others.

### Constraints

- Environmental institutions established at political level e.g. Environmental Protection Council could not sustain its function
- NCS for Nepal omitted the climate change aspects which is considered as having wider consequences.
- Ministry of Population and Environment was instituted in 1995 and then to the Ministry of Environment in 2010, and many other ministries established an environmental division/section in their organisations. There lacks working relationship in terms of environmental plan and investment between the line ministries and the Ministry of Environment.



### 3. Environmental Impact Assessment (EIA)



#### The seventh plan (1985-1990)

- Implementation of development projects without proper studies acknowledged for the first time as the potential cause of adverse effects on ecology
- Policy declared in relation to environment conservation and pollution control:
  - Execution of physical development activities construction industrial projects after proper studies and evaluations especially against the background of ecological problems

#### The eight plan (1992-1997)

- EIA Program
  - Formulation of guidelines for various sectoral agencies for EIA program
  - Priority to the obligatory assessment of the environmental impacts at the time of conducting their feasibility studies prior to carrying out large-scale development projects (esp. road, hydro- electricity, industry, irrigation, housing, drinking water, sewerage, etc.)

#### The eight plan

- Enactment of EPA, 2053

#### The sixth plan (1980-1985)

- A close linkage among population growth, poverty, resulting pressure on land or changes in land use and environmental problems recognized
- Major policies, among others, with regard to environmental management:
  - Formulating Acts and Rules and making necessary arrangements to prevent air and water pollution caused by industrialization, urbanization and other programs in the course of development
  - Taking environmental aspect into consideration while formulating/planning large infrastructure projects in the context of development of the country

#### The seventh plan

- The NCS for Nepal envisaged ensuring environmental conservation by dealing with existent issues/problems mainly on three fronts:
  - environmental quality
  - air, water & noise quality
  - socio-economic and environmental impacts
- Indication of matters/aspects to be included in EIA and subsequent review

#### The eight plan

- EIA Program
  - Allocation, on the basis of these studies, of adequate fund in the project budget to minimize adverse effects on the environment together with provisions to monitor whether such environmental impact assessment has been made or not

#### The ninth plan (1997-2002)

- Clear acknowledgement of the adverse impacts of environmental degradation on public health and tourism development
- Emphasis on the importance of prior environmental study (EIA) before implementing projects
- Mention of the requirement of hard work to protect the ubiquitous natural beauty and biodiversity in the process of economic development of the country

## The ninth plan

Policies/implementation strategies were **adopted**:

- Necessary provisions for voluntary initiatives of local bodies, communities as well as governmental, non-governmental and private sector in raising public awareness and common participation in the field related to environment and EIA
- Priority to the development process with EIA that preserves bio-diversity
- Incorporation of more participatory EIA process into economic plans and developmental activities right from the local level
- Incorporation of more participatory EIA process into economic plans and developmental activities right from the local level

## Tenth Plan (2002-2007)

Acknowledged the following as the major problems and challenges in the field of environment:

- lack of apparent coordination of environmental policies and programs with various sectoral policies and programs
- lack of capability of MoPE
- lack of complete evaluation of the works carried out by non-governmental organizations and donors

## The 3 year interim plan (2007-2010)

### Current challenge:

- effective implementation of formulated policy on environmental management as well as EIA reports along with approved by-laws

## The 3 year plan: Approach paper (2010-2013)

- **Objectives:**
  - To adapt to and minimize the negative impacts posed by climate change by making human activity and development activities environment friendly through encouraging the concept of green development
  - To control urban pollution and protect the natural beauty of rural areas
- **Strategy:**
  - Develop *environmental management* as integral part of development programs by internalizing it in development programs

## The ninth plan

- Enactment of EPR, 2054

## Tenth Plan

*Policy/action plans* with regard to EIA with a view to bringing about a more effective environment management and monitoring system:

- Making monitoring & evaluation (of the projects that have undergone EIA) effective

## The 3 year interim plan

### Policy and working policies:

- Improving the quality of environment by means of environment-friendly development by integrating environmental aspects in social and economic development programs through EIA system
- Institutionalization of environmental monitoring and auditing through an effective implementation of the approved EIA reports

## Issues related to EM

- EM in sectoral development process quite evident at policy/plan level
- Not consistent and continual at program level

## Issues related to EM

- The biggest drawback
  - A minimal mainstreaming at the implementation level
    - primarily due to very weak institutional capacity of MoE and other line agencies for an effective nation-wide environmental administration/monitoring

## Other issues specific to EIA

- No indication or prescription as to the nature of and strength required for the law implementing agency for effective enforcement of the provisions of EPA and EPR in full accord with the spirit, scope and challenges inherent with the EPA/EPR
- No elaboration of public hearing procedures
- No prescription of minimum time duration to be spent for scoping exercise and subsequent ToR preparation
- No prescription of minimum time duration to be spent for IEE or EIA study

## Issues related to EM

- EM to some extent through
  - requirement of approval of EIA's and IEE's and compliance with them by the proponents despite virtually non-existent compliance monitoring of implementation of EIA/IEE reports on the part of the government

## Other issues specific to EIA

- The prescribed format for EIA and IEE reports are not clear & systematic
- Validity period of approved ToR and EIA/IEE report is not specified
- No clear technical rationale behind threshold values set for screening proposals for IEE or EIA
- The quantum of fine/penalty is insignificant

*Thank you!!*

## 4. National Adaptation Plan of Action (NAPA)

**CLIMATE ADAPTATION DESIGN AND PILOTING PROJECT - NEPAL**

ENVIRONMENTAL MAINSTREAMING IN NEPAL:  
THE CASE OF NAPA & LAPA

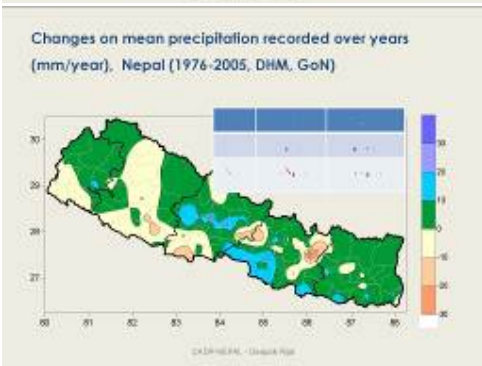
Deepak Kumar Rijal, Ph.D.

20-22 Oct 2011, Hotel Grande, Pokhara

Climate/weather assessment indicators

Particular	Direct	Indirect
<b>Temperature</b>	<ul style="list-style-type: none"> <li>•Days (hot, dry)</li> <li>•Duration, timing and fluctuation</li> </ul>	<ul style="list-style-type: none"> <li>•Crop maturity</li> <li>•Breeding and calving interval</li> <li>•Expansion of habitats</li> </ul>
<b>Precipitation</b>	<ul style="list-style-type: none"> <li>•Form (solid or liquid)</li> <li>•Types, timing, intensity</li> <li>•Number of rainy, cloudy or sunny days</li> </ul>	<ul style="list-style-type: none"> <li>•Flooding time</li> <li>•Productivity</li> <li>•Diseases, pests, parasites</li> </ul>
<b>Wind characteristics</b>	<ul style="list-style-type: none"> <li>•Duration and timing of cold, hot waves</li> <li>•Timing &amp; speed</li> </ul>	<ul style="list-style-type: none"> <li>•Forced and early maturity of winter crops</li> </ul>
<b>Culturally established Superstitions</b>	<ul style="list-style-type: none"> <li>•Rice seeding (May 12)</li> <li>•Astrological knowledge in practice – seeding?</li> <li>•Weather forecasting?</li> </ul>	<ul style="list-style-type: none"> <li>•Marriage of frogs</li> <li>•Women organize rallies during night time.</li> <li>•Pray local deities, earth and of water sources, sacrifice goat to please local deities</li> <li>•Reciting holy books of Hindu</li> <li>•Rice seeding date and timing</li> </ul>

D.K.R-NEPAL, ©Deepak Rijal



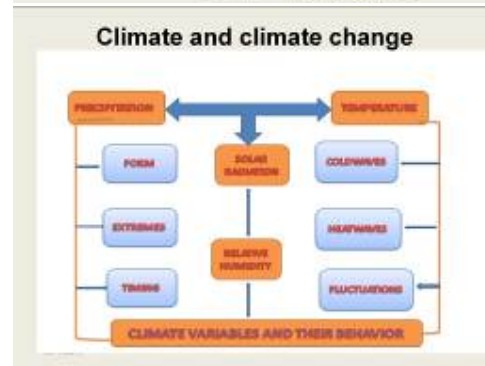
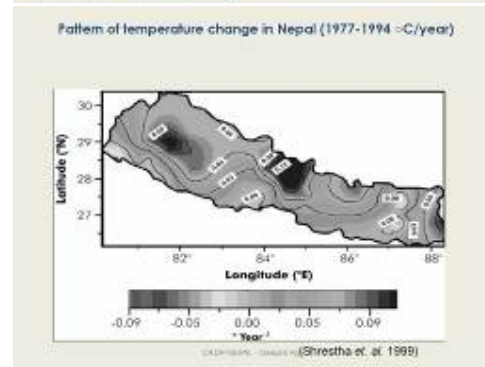
**CLIMATE CHANGE IMPACTS**

- Increasing variability & uncertainty
- Impacts are additional
- Impacts are cross-cuts:
  - brown (e.g. infrastructure, road, settlement)
  - blue (e.g. water)
  - Green (e.g. biodiversity, agriculture)
- CC undermining development initiatives

Devise mechanism that ensures effective and timely delivery of adaptation services to climate vulnerable people

**OUTLINE**

1. CLIMATE CHANGE :
  - CHARACTERISING CC IMPACTS
  - GON RESPONSE TO CLIMATE CHANGE
  - NAPA-LAPA TO DELIVER ADAPTATION SERVICES
2. EXISTING MECHANISM:
  - INSTITUTIONAL SETTING
  - FINANCING (on-budget, off-budget)
  - PLANNING PROCESS, SCALE (Public and private)
3. MAINSTREAMING CLIMATE ADAPTATION INITIATIVES :

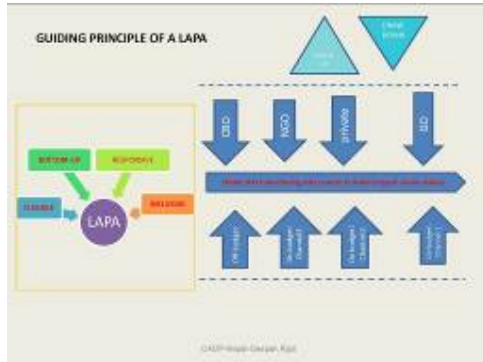
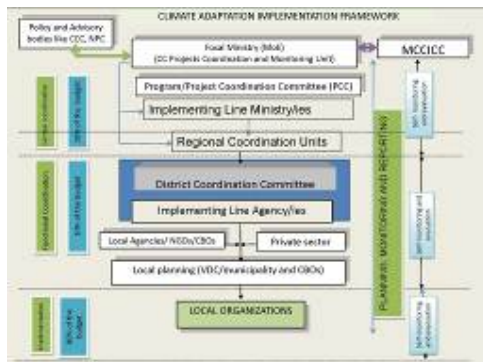


**INITIAL RESPONSE TO CLIMATE AND ENVIRONMENTAL STRESSES**



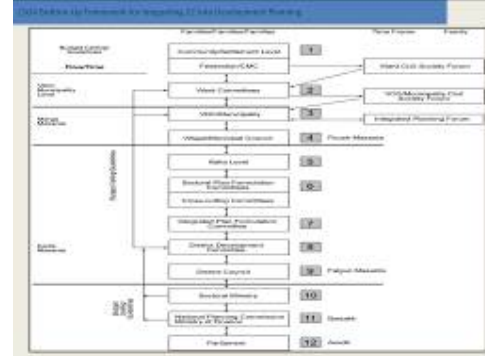


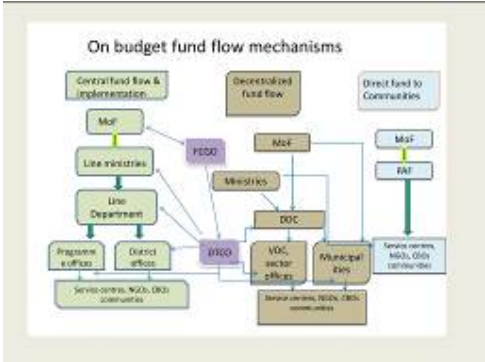
- ### ENVIRONMENT AND CLIMATE ADAPTATION INITIATIVES
1. INSTITUTIONAL RESPONSE:
    - CLIMATE CHANGE COUNCIL, FOCAL MINISTRY, NPC
    - DIVISIONS, UNITS, SECTIONS, CENTRES etc
  2. POLICY RESPONSE:
    - CLIMATE CHANGE POLICY,
    - ENVIRONMENTAL LAWS, BYLAWS
  3. PROGRAM RESPONSE:
    - MITIGATION - REDD
    - CLEAN DEVELOPMENT MECHANISM
    - ADAPTATION - NAPA, LAPA



- ### LAPA MILESTONES
- **Piloting and design:**
    - Scoping
    - Piloting
    - Design
  - **Consultation workshops:**
    - 4 at regional level with key stakeholders
    - 2 at national level with GO and with Non-Government Agencies
    - Harmonization of works supported by key design agencies
    - Revision of the Framework by the design team
  - **Policy decision by Activity Coordination Committee**
    - MoE, DFID, CADP-N team leader

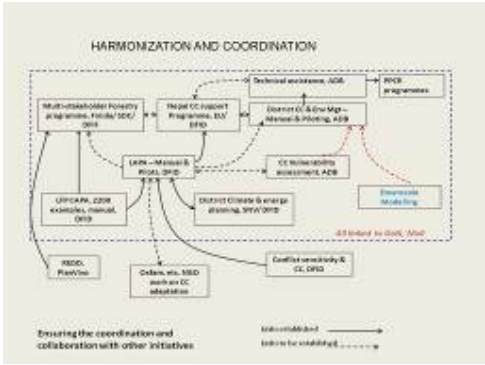
- ### EXISTING PLANNING, FINANCING AND SERVICE DELIVERY MECHANISM
- Ministry of Local Development
  - Line Ministries
  - For the profit, not-for profit and civic society organizations
  - Semi-autonomous bodies e.g. PAF, NARC, NAST, AFPC FRP, public health, divisional offices etc.





### OFF-BUDGET FINANCING

- BILATERAL FUNDING
- CIVIC SOCIETY
- PRIVATE SECTORS
- GRANTS, LOANS
- COLLABORATIVE PROJECTS
- etc.



### COORDINATION AND HARMONIZATION

- TOOLS, METHODS AND APPROACHES
- TRAINING MODULES
- COMPLYING INITIATIVES WITH NATIONAL POLICIES
- INTEGRATED DEVELOPMENT PLANS

### INTEGRATING LOCAL ADAPTATION PLANS

Public, private and civil society institutions play a role in adaptation planning at the local level.

Institutions for local adaptation	Roles
Community Based Organizations	Preparing and implementing community level plans.
Govt institutions	WDCs coordinate and monitor community generated CC. They develop capacity programs and implement plans. Cooper with local and district financial resources that help build the adaptive capacity of the local sub-sector.
Public institutions	Integrate community ideas into local development planning programs. Coordinate planning across. Develop and coordinate the implementation.

**KEY EXAMPLE: Role of DDC in coordinating adaptation planning**

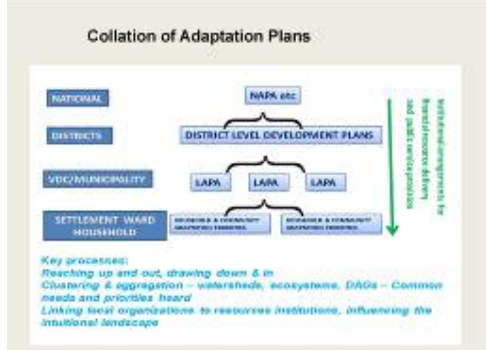
**Background:** Climate Change Coordination Committee was established with the decision of District Development Council (DDC) in 2007 to Review and monitor the local level call for Climate Change Adaptation and Mitigation Fund (CCMAF). It is the principal guideline of DDC and CCMAF have been approved by the District Development Committee.

**Aims:** The key objectives of DDC/CC for climate adaptation planning in response to CC impacts. Provide technical support for climate change vulnerability assessment, capacity building and knowledge sharing. Coordinate Climate Change Adaptation and Mitigation Fund (CCMAF). Carry out and support 'bottom-up' plan and implementation program on climate change at local level, village, DDC level.

**Mandates:** The committee consists of 25 members from concerned government line agencies, NGOs & development programme representatives. Private Sector, DDC, Technical Institutions, Church and Environmental Officer of DDC will be the executive members of DDC. The committee is chaired by the chairperson of the District Development Committee.

**Current Performance:** The DDC has started establishing the models by conducting regular awareness programmes through local NGOs. The committee is coordinating with government line agencies and NGOs to identify the innovative private sectors to support Climate Change Vulnerable communities.

Source: Report No. Report, 2011.



### DDC MILESTONES

- Local Development
- Coordination
- Facilitation
- Regulation





**NAPA-LAPA INTEGRATION INTO LOCAL AND  
NATIONAL PLANNING**

Local bodies (DDC, VDC) have operational mechanism to deliver services, coordinate, facilitate and regulate district level programs

DDC coordinating and facilitating different public and private sector initiatives related to cross cutting sectors including climate change

**THANK YOU**

**However,**

**Capacity building of key stakeholders  
based on capacity assessment - required**

**CC responsive policy, guidelines and funding  
support to CC adaptation initiatives required**

**Additional human resources required to manage  
along with increasing responsibilities & mandates**

## 5. Brown Sector Environmental Mainstreaming Initiatives

**NEPAL**  
"Brief on  
**Environmental Mainstreaming Initiative**  
**Brown Sector**

Littam Kunwar Ph.D.  
Faculty of KMS/SchEMS

**Distribution of Manufacturing Industry in the Country**

**100%-3446 Industry Establishment**  
Source: GIZ unpublished data

**Number of industries registered by category & scale**

CATEGORY	EXAMPLE	NO. OF INDUSTRIES			
		Large	Medium	Small	Total
Agro-based	Tea, grain mill	64	69	76	199
Construction	Housing	-	5	20	25
Energy based	Solar, hydropower	20	10	-	30
Manufacturing	Garment, carpets, jute, leather, paper	124	380	1249	1753
Mineral	Quarry	1	1	1	3
Service	Information technology, entertainment	63	259	501	823
Tourism	Travel agency, hotels, restaurants	54	124	331	509
<b>Total</b>		<b>276</b>	<b>848</b>	<b>2178</b>	<b>3,202</b>

Source: Industrial Statistics (2004/05)

**Pollution Load from Industrial Sector in Kathmandu Valley**

Sector	Type/Product	Waste water		COD		BOD	
		m <sup>3</sup> /day	%	kg/day	%	kg/day	%
Carpet	Dyeing & Washing	990	1.8	8,600	5.5	2,890	5.6
Thai Food	Instant Noodle	30	0.05	58.5	0.04	39	0.08
Vegetable Oil & Grease	Oil and Grease	25	0.05	26.8	0.02	34.5	0.05
Textile	Synthetic fabrics	48	0.09	276	0.18	35	0.07
IED	Mixed	690	1.1	2,265	1.5	337	0.7
<b>Industrial Total</b>		<b>1,883</b>	<b>3.2</b>	<b>11,226</b>	<b>7.2</b>	<b>3,315.5</b>	<b>6.5</b>
Municipal wastewater		50,700	96.8	144,800	92.8	48,000	93.5
<b>TOTAL</b>		<b>52,383</b>	<b>99.6</b>	<b>155,226</b>	<b>92.8</b>	<b>51,316</b>	<b>93.5</b>

**Agenda**

**I. Background on industrial sector**

**Trend of industries registered**

**Pollution Load of Selected Industrial Sector**

Sector	Production	Wastewater m <sup>3</sup> /yr	BOD T/yr	COD T/yr	Solid Waste T/yr
Soap and Chemical	Soap	12,543	42.4	321	NA
Wool Processing	Dyeing	318,000	146.3	524.7	125
Food Processing	Washing	750,000	6000	600	NA
Distillery	Distillery	181,410	181	272	NA
Brewery	Brewery	292,620	42096	23,702	NA
Leather tanning	Chrome tanning	1,368,000	410.4	6,024	11,832

Source: Unpublished baseline studies conducted by CS/SAARC (1999-2000)

**Macro Level - Methodology**

Any process/unit operation

$a = b + c + d$

### PSR scenario

Pressure	State	Response
Industrial waste (manufacturing, service)	Environmental Pollution Poor health & sanitation Productivity losses	Legislation Policy & plan Directives Bilateral /multi lateral support
Production process	Depletion resources Health hazards	Standards Norms/bench marks

### Legislative/convention intervention

- Industrial Enterprise Act 1982**
  - Polluting industry need permission
  - Apply 100% liability on pollution cost of enterprises
  - Use economic instruments for priority
- EPA & EPRE**
  - Section 7 : prohibit pollution
  - Pollution control certification
- IPU (1999) guidelines**
  - Category A: Polluting unit allowed within 10 km from urban area
  - Category B: prohibited within 10km if town and densely populated area
- NBSM: National Standards**
  - Zoning: Industrial district
  - Convention: Basel/ Montreal/PIZ, etc.

### Bilateral and Multi Lateral interventions



### Investment, Saving & Sustainability



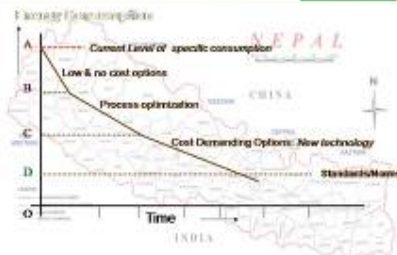
### Interventions

- NETWORKING**
  - Ministry of Industry, Technology & Environment Div.
  - Dept. of Industry, Technology and Environment Section
  - Industrial Promotion Board: (IPB) - Highest policy making board
  - DCSE: IPBMS responsible for pollution control, monitoring, certificate
  - ABRMI: Assessment of standards voluntary
  - MCE: Local measures, local compliance, enforcement of legislation
  - Other IEDL: DM/FNCC/FMCS
- MCI line agency: Plan & policy**
  - Keep large polluting industry out of Kathmandu
  - Developed industrial pollution inventory - 1994
  - Establishment of environmental division
  - Mandatory IEE / EIA for polluting industries
  - IDPP- Vision 2020

### Barriers to EE in Industry

- POLICY LEVEL:**
  - Government's Commitment
  - Bench marking, and Resource management Planning
  - Financial Incentives and Penalties for Non-Compliance
  - Compliance: Voluntary to Mandatory
- INDUSTRY LEVEL:**
  - Inadequate Information
  - Democratization intervention
  - Attitudinal barrier i.e. Resistance to change
  - Financial resources

### Outcome of Intervention



### Outcomes



## Mainstreaming Case Story

- UNIDO EFFLUENT TREATMENT FACILITY - INVESTMENT DOWN THE BRAIN  
CONSTRUCTION OF WWTP/DANIDA FOR HD INDUSTRIES FOR REPLICATE EFFECT
- CPVEE INTERVENTION IN 360 INDUSTRIES WITH PROVISION OF SOFT LOAN: 15-30% ENERGY; 20% GIB; OVER 60% REDUCTION THROUGH GIBK
- DECENTRALIZATION FOR ENVIRONMENTAL MONITORING & COMPLIANCE - SEAM-N CASE

## Findings (contd.)

Previous plan and policies and their level of implementation have never been clear enough to tackle the sustainable production.

All planning and supporting agencies need to initiate new pro-conservation strategies for sustainable development, and need to be implemented rapidly.

Use of Cleaner Production is included in the 10<sup>th</sup> FYP but strategy for implementation is not clear.

Studies show that energy policies currently scattered in various documents and executive orders. These include policy statements of the government made in periodic development plans, sub-sector policies, government orders and notices, and laws passed by the legislature.

## Way forward for sustainability

SPC in Industry: vehicle for Economic Development



Thank you for your Attention!



## Findings

- Legislation, directives are mostly reactive to pollution rather than proactive
- Previous bi- and multilateral interventions were resource conservation oriented, but recently more focused on CC rather than on sustainability of resources
- Most Bi-lateral and multilateral assistance are one time, prescription nature
- Monitoring or follow up on legislation
- No single institution responsible for conservation & development
- Nonetheless, number of inter governmental ministries and departments' involvement in policy formulation, planning at the sectoral and sub-sectoral level for execution of different projects has demonstrated a serious lacking in terms proper coordination among them

## Key Challenges

- Most energy programmes (government- and donors supported) in Nepal are planned at the central level. Local collaboration is restricted primarily to implementation although the planning process generally does not allow local partners to participate in periodic and annual review deliberations—mostly top-down—down project planning and implementation mechanisms is adopted.
- The interface between local and central institutions is provided by District Development Committees (DDCs)—questionable capacity
- Other relevant programmes include the Dugan Sector Partnership—Nepal (DSSP-Nepal), which aims to provide energy access to larger sections of the poor
- Local government bodies are disassociated with central agencies, which has prevented to be addressed to local requests including local programme needs, objectives and modalities. The Association of District Development Committee Nepal has been lobbying with the Government of Nepal for the Committee's rights to take decisions on energy projects within its jurisdiction, since 2001
- Unequal distribution of funds and insufficient central agencies have widened the gap in roles of central and local agencies during programme implementation
- Rural energy needs for cooking and heating are largely ignored. There is no promoted focus on available cooking energy technologies, including gasifiers, biogas stoves and solar cooking.
- Most of all government stipend and policies have exclusively been focused on pollution prevention or pollution mitigation initiatives.

## Please visit!

