

# South Asian Regional Pilot Training on Community Based Adaptation to Climate Change (9-13 Jan, 2009)

## *Training Report*



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Submitted by



**Local Initiatives for Biodiversity, Research and Development (LI-BIRD)**  
GAIRAPATAN, P.O. Box 324, Pokhara, Nepal  
Telephone: 061-535357/532912/526834; Fax: 061-526834  
E-mail: [info@libird.org](mailto:info@libird.org); Web site: [www.libird.org](http://www.libird.org)

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## **Acknowledgement**

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## **Background**

Climate change and their impacts in developing countries (especially least developed countries) will become inevitable in the coming years. Many of the most vulnerable groups and communities will be the poorest and most marginalized. In Nepal there are significant numbers of NGOs actively involved in rural development and natural resources management and supporting government in implementing program and policies. Because of their important roles, NGOs are found to be very effective in enhancing awareness among local communities on environmental concerns and mobilizing the locals in addressing some of the concerns of climate change.

Development NGOs (including international as well as national and local NGOs) have been experienced in working with such vulnerable groups and communities. However, most development NGOs has not yet engaged with the issue of Climate Change yet. In Nepal there due to initiation of LI-BIRD and partner organization NGO group is formed and actively involved in the climate change work. However there are very limited resources, capacity and project currently handled by the civil society organization. These civil society organizations have also limited and untrained manpower to deal with climate change related research and development.

One of the realization for the NGOs is they lack capacity and information on what adaptation is and how it can be assessed and implemented. It is necessary in Nepal to identify vulnerable sector, region and communities in order to plan relevant, effective and timely implementation adaptations strategies. It has also been difficult for the civil society to convince government and policy makers on the impact of climate change due to lack of data and information. One of the reason for the gap in information and database is lack of skill and knowledge in generating information and feeding into planning and policy making process.

There are already many tools and methods used in the region which will be relevant in the Nepalese context. The SSN (South South North) project identified SSNAPP methodology for mapping vulnerability, identifying, designing and implementing community based adaptation to climate change. This methodology will be importance to Nepal. Similarly, Bangladesh Centre for Advanced Studies has been involved in using this methodology in assessment and mapping of vulnerable sector and communities. There is opportunity for the NGO group in Nepal to learn from our Bangladeshi colleagues and rich experiences within us. This training is organized based on the need and requirement of civil society professions to increase their knowledge and skills in community based adaptation on climate change.

## **Objectives of the training**

- To increase knowledge and skills of non-governmental organization's staff on climate change and adaptation science, policy and practice
- To provide orientation on methodology for identifying, designing and implementing community based adaptation projects.

## Training Management

### a. Resource Person:

1. Mozaharul Alam, Research Fellow, BCAS
2. Golam Rabbani, Senior Research Officer, BCAS
3. S.M. Ashraful Amin, Senior Research Officer, BCAS
4. Nakul Chettri, ICIMOD

### b. Organizers of the training

The training program was jointly organized by Local Initiatives for Biodiversity, Research and Development (LI-BIRD) in collaboration with Bangladesh Center for Advance Studies (BCAS), International Institute for Environment and Development (IIED), Practical Action-Nepal and The Development Fund Norway.

c. **Participants:** There were 43 participants representing from governments and civil societies organizations from India, Sri Lanka, Bhutan, Bangladesh and Nepal. (Annex 1).

### d. Coordination:

1. Overall Coordinator: Bimal Raj Regmi
2. Field visit management: Dinanath Bhandari
3. Logistics: Sandhya Karki, Apar Paudyal, Lalita Thapa

## Training Program Highlights

- a. **Introductory session:** The training was started with introduction among the participants, resource persons and the organizers. The participants were provided with evaluation form "Socratic Wheel" to assess their own performance level. The resource persons and facilitators then gave an overview of the training programme, module and process.
- b. **Theory and Concepts:** Day one and two mostly concentrated on understanding climate change science, the basics of climate change, the causes of global warming and sea level rise, the impacts and

consequences of such changes on the ecosystem and human well being. Similarly, the resource person shared the global scenarios and response measures on climate change i.e. mitigation and adaptation. Key terminology on climate change was also shared during the lecture. The lectures were eye opening on climate change agenda and issues. However, the following were some of the issues discussed during the day one

- How do we translate the climate change science so that the communities will be able to understand and relate
  - The challenges of least developed countries like Nepal to show evidences and facts based on the data
  - Research need on relating the impacts of climate change on various sectors both in terms of mitigation as well as adaptation
  - How we deal with uncertainties and additionalities issues in climate change and community based adaptation
- c. **Climate change impacts and vulnerabilities:** The second day started with session on climate change issues at global level with examples of industry and energy sector in Japan. Session highlighted the impacts of climate change on different sectors with focused on South Asia and particularly, Bangladesh. The presentation was also focused on linkages between climate change and disasters with focus on how climate change increases disaster risk and vulnerability of communities on those events.

Second half of the session was devoted on group exercises on impacts and vulnerability matrix. Participants were divided into 4 group's i.e Agriculture and food security, Biodiversity, Water and Sanitation and Energy. All the groups took example of Terai to discuss on the vulnerability context and assess the livelihood impacts and coping strategies to arrive at vulnerability context of communities. This group exercise was shared in the plenary and discussion was held. Discussion concentrated on some clarification on sectoral vulnerability assessment methods and process. Key issues identified in this session were the following:

- Vulnerability is mostly based on qualitative assessment
  - Assessment for the projection is based on the current trend and information which may be difficult due to lack of information
  - Context specific assessment criteria and indicators is needed for realistic assessment
  - The Vulnerability matrix needs guidelines to make it complete
- d. **Adaptation:** The third day started with a presentation on biodiversity and its role in community based adaptation from Nakul Chettri, ICIMOD. The resource person highlighted the key linkages of biodiversity management and community based adaptation. Then the

second presentation was focused on key concepts on adaptation to climate change. The presentation also discussed on the linkages between adaptation to climate change and development.

Second half of the presentation was focused on methods and tools of impact vulnerability and adaptation. The resource persons shared various tools for regional climate models, impact models and decision tools including adaptation policy framework. The final presentation was on Introduction to locate, a tool for vulnerability and adaptation need assessment.

The final presentation was made from Practical Action on their intervention on adaptation. The resource persons from Practical Action also gave a briefing on the field visit plan and associated logistics. Key issues raised by participants in this session are the following:

- Need more tools and techniques on CBA
  - Should focus on practice as well as application of the tools
  - Key terminologies on livelihood assets should be more defined
- e. **Field Visit:** The participants were taken to the field sites of Practical Action in Kabilash VDC of Chitwan districts. The field visit was intended to provide the participants will first hand field based knowledge and exposure on the adaptation project and activities. There was group discussion session with farmers and a field observation. The interaction between the trainees and farmers was concentrated on the historical timeline of the vulnerability context, major disasters, coping strategies and adaptation measures promoted by Practical Action and other organizations. The discussion was also focused on sustainability issues and effectiveness of such interventions. Later field visit was organized to observe farm level activities of few farmers. Some of the observations of the field visit is the following:
- Communities are adopting technologies and practices to cope with adverse impact of disasters caused partly due to climate change
  - Most of the interventions were designed to offer technologies and alternatives for communities to deal with adversity
  - There is strong farmers organization and group cohesion committed to promote the intervention beyond the project support
  - VDC is keen to include the activities in their annual work plan
- f. **Designing community based adaptation projects:** The fifth day started with reflections from the field. Participants expressed their own feeling and perception about the field visit including some learning. Then, the resource persons asked the groups to design the CBA project making some assumptions about site and communities. Participants were asked to focus on find vulnerability hot spots including project

owner for implementation and project design. The groups were divided into two randomly. Each groups spent 3 hours till lunch to do the exercise. The outcome was shared during the plenary and discussion was held.

### **Some Feedbacks about the training content and overall management**

- Should be more focused on specific issues in future
- Need more time on vulnerability assessment and mapping exercise
- Need another follow up training on community based adaptation
- There is a need to include more practical examples from the field
- The vulnerability matrix need some updating and supplied with more information
- The training was as good initiative and should be continued in future.

## **Concluding session**

The training was concluded with key speech note from international and national participants, resource persons and host organizations. All the speakers expressed their satisfaction on the training content, design and management. The pilot training was refined and revised based on the feedback provided by the participants. These feedbacks were compiled and will be used to further polish the training module. Speaking at the session, Mr. Mozaharrul Alam stressed the need for more collaboration and networking in future. Mr. Tara Lama expressed vote of thanks to all the organizers, resource persons and participants for their active participation and wonderful management. Dr. Pratap Shrestha, in his concluding remarks, expressed his satisfaction on the successful conclusion of the training including the contribution of resource persons and participants. Dr. Shrestha stressed the need for more pro active role of civil society in transferring knowledge and skills and taking initiative in research and development in days to come. Finally he highlighted the need to support civil society movement and NAPA formulation. Participants were given certificate as a gesture to their active participation and contribution in the training.

# Annexes

## Annex 1. Organization of the training

### Day One

#### 1: Understanding Climate Change Science,

- Weather and Climate
- Climate Change
- Sources of Green house gases
- Consequences of GHG concentration in the atmosphere

#### 2: Climate Change Scenario

- Changes in land and sea surface temperature
- Variation in Rainfall
- Ice melting and sea level rise

#### 3: Responses to Climate Change and Justice

- Mitigation and Adaptation
- What are the fundamental differences between Mitigation and Adaptation
- Global injustice regarding carbon emission
- Equal rights to development
- Compensation regarding carbon emission and the injustice between survival and luxury

#### 4: Basic Terminology

- Key terminology of climate change: Impacts, vulnerability, adaptation, mitigation, risk, hazards, shock, variability, trend, exposure, sensitivity, adaptive capacity .etc

### Day Two:

#### 1: Impact of Climate Change

- Climate Change Key issues at global level
- Climate change impacts on industry and energy in Japan
- Impacts on CC on different sectors
- Climate Change impacts in South Asia
- Climate Change impacts with some recent observations in South Asia
- Climate change impacts in Bangladesh

#### 2: Link between Climate Change and Disasters

- Conceptual Clarification on hazard and disaster
- How climate change increase disaster risk
- Identification of area specific extreme climatic events or disasters i.e. flood, cyclone etc.
- Analysis of intensity and frequency of those events depending on temporal dimension
- Vulnerability of the community to those events.

GROUP EXERCISE: Impacts and vulnerability matrix

### DAY 3:

#### 1: Adaptation to climate change

- Adaptation science
- Types of Adaptation
- Context specificity of adaptation

#### 2: Link between Adaptation to climate change and development

- Link between adaptation and development where commonalities and difference exist

#### 3: Methods and tools: Impact, Vulnerability and Adaptation

- Overview of existing frameworks, methodologies and tools
- Tools: For instance, General circulation models, Regional climate models, impact models, decision tools (cost-benefit analysis), stakeholders tools (vulnerability indexes, livelihood sensitivity exercise, etc) and participatory rapid appraisal.
- Adaptation policy framework: Hazard based, vulnerability based, adaptive capacity and policy based
- NAPA framework
- General tools- IPCC-TGCIAGuidelines on the use of scenario data for climate impact and adaptation assessment
- Climate Downscaling techniques statistical downscaling, Statistical downscaling model, dynamical downscaling, MAGICC/SCENGEN, Weather generators, Country specific model for inter-temporal climate, Providing regional climates for impacts studies

### DAY 4: Field Visit

- Field visit to Kabilash village development committee of Jugedi, Chitwan.
- Field consultation with the representative VDC members and communities.

- Site visit for DRR application used and adaptation techniques applies.

#### DAY 5:

##### 1: Introduction to locate

- Introduce a top-down and bottom framework to design community based adaptation project.
- Cover different tools and approaches for vulnerability and adaptation need assessment
- Locate Framework have four phase
- Phase I: Finding Vulnerability "Hot-spots" and "Project Owner" for implementation
- Phase II: Project Design
- Phase III: Implementation
- Phase IV: Monitoring and Evaluation

##### 2: Hands on exercise

- Analyze community level vulnerabilities and their adaptation needs to deal with adverse impacts of present and future climate.
  
- Phase I: Finding Vulnerability "Hot-spots" and "Project Owner" for implementation
- Phase II: Project Design
- Phase III: Implementation
- Phase IV: Monitoring and Evaluation

##### 2: Hands on exercise

- Analyze community level vulnerabilities and their adaptation needs to deal with adverse impacts of present and future climate.

## Annex 2: List of Participants

	Name	Organization	Contact Number	Email Address
1	Bikash Subedi	SAHAMATI	9845026624	bikash064@yahoo.com
2	Pramod Rijal	BEE Group	9848024708	beegroupnpj@ntc.net.np
3	Dinanath Bhandari	Practical Action	9851018129	dinabha@practicalaction.org.np
4	Yuwan Malakar	Practical Action	9806895798	yuwan.malakar@practicalaction.org.np
5	Rishi Ram Adhikari	ECOSCENTRE	9845052026	ecoscentre@wlink.com.np
6	Sachesh Silwal	LI-BIRD	061-535357	ssilwal@libird.org
7	Namita Nepal	FORWARD	9842140910	namitanepal@hotmail.com
8	Jeni Thapa	ForestAction	9841401744	jenithapa@hotmail.com
9	Anupa Ghimire	NCDC	9841844441	ghimire_anupa@yahoo.com
10	Roshan Pudasaini	LI-BIRD	9841690359	rpudasaini@libird.org
11	Sharad Adhikari	LI-BIRD	9858023030	adhikarisharad@yahoo.com
12	Puspa Sharma	LI-BIRD	9748513656	puspasharma2000@yahoo.com
13	Bir Bahadur Tamang	LI-BIRD	9846044871	btamang@libird.org
14	Bal Krishna Jamarkattel	LFP	9847062990	jkbalakrishna@lfp.terai.org
15	Shree Bhagawan Thakur	LI-BIRD	9846163694	sbthakur500@rediffmail.com
16	Rachana Devkota	LI-BIRD	9845047988	rdevkota@libird.org
17	Ritu Pantha	MOEST	01-422637	ritupantha@hotmail.com
18	Deepak Paudel	NDMF Nepal	9841647398	ndmfnepal@gmail.com
19	Mathbar Adhikari	MOEST	01-4211946	mathbarad@yahoo.com
20	Kanchan M.Dixit	ISET-N	01-5528111	kanchan@ntc.net.np
21	Maozaharul Alam	BCAS		mozaharul.alam@bcas.net
22	Ashraf Amin	BCAS		ashraf.amin@bcas.net
23	Gopal Raj Joshi	Winrock International	9841259930	gjoshi@winrock.org.np
24	Rabin bastola	ENPHO	9851097660	rabinbastola@gmail.com
25	Manjeet Dhakal	Clean Energy Nepal	9841540860	manjeet@cen.org.np

26	Ek Raj Sigdel	WTLCP	9858420781	ekraj@wtlcp.org.np
27	Rishi Bastakoti	RIMS-Nepal	9741144401	rishibastakoti@hotmail.com
28	Min Raj Bhandar	MADE-Nepal	9845081730	minbhandari@hotmail.com
29	Shree Kumar Maharjan	LI-BIRD	9841451299	skmat70@hotmail.com
30	Anuja Shrestha	LI-BIRD	9746000463	anuja@libird.org
31	Apar Paudyal	LI-BIRD	9846044819	apaudyal.libird.org
32	Suman S.Manandhar	LI-BIRD	9804142707	smanandhar@libird.org
33	Sandhya Karki	LI-BIRD	9841662888	sandhya@libird.org
34	Sanyasi Rao	ANTHRA,India	040-277113167	anthra.hyd@gmail.com
35	Jahangir Alam Jony	UBINIG, Bangladesh		
36	Ram Saran Sedai	MDO	9846086101	mdo@fewanet.com.np
37	Nakul Chhetri	ICIMOD	9841516138	nchettri@icimod.org
38	Dago Tshering	RSPN-Bhutan	0975-77607642	dtshering@rspnbhutan.org
39	Pratap Shrestha	LI-BIRD	9856020361	pshrestha@libird.org
40	Bimal Raj Regmi	LI-BIRD	9856027605	bregmi@libird.org
41	MD.Golam Rabbani	BCAS		golam.rabbani@bcas.net
42	Tara Lal Lama	LI-BIRD		tlama@libird.org
43	Sudha Khadka	LI-BIRD	9803199262	skhadka@libird.org