

# Application of Community Based Adaptation Measures to Weather and Climate related Disasters (WCD) in Western Nepal: Preparation for the Potential Climate Change Signal



## Introduction

Increase in weather and climate related disasters (WCDs) in South Asian monsoon region is one of the concerns of global climatic changes. Almost 13% of the development expenditure of Nepal is spent on disaster response and recovery activities every year. The proposed project has identified following two pilot actions as adaptation to WCD:

1. Initiate weather and climate (including climate change) related information dissemination (WCID) scheme for the community by establishing interactive communication between National Meteorological Service of Nepal with the vulnerable community of Putalibazaar Municipality (PM) and suburbs.
2. Initiate community based insurance (CBI) in order to share the disaster losses among government, community and insurance agencies.

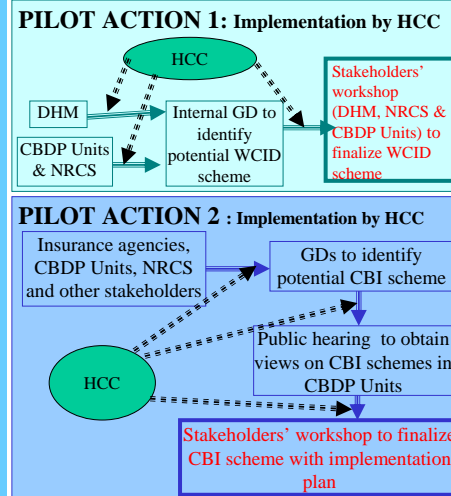
## Basis of Project Formulation

Community Based Disaster Preparedness (CBDP) Units exists in the PM and suburbs under the supervision of Nepal Red Cross Society (NRCS). NRCS is one of the major organizations involved in pre-, during, and post-disaster management in Nepal. Initial investigations have indicated that CBI could be one of the loss sharing measures to WCDs in PM and suburbs. In this backdrop, the Himalayan Climate Center (HCC) organized the first Consultative Meeting of the identified stakeholders on 20 November 2006 in Kathmandu. The main objective of the Meeting was to obtain the views on two pilot actions and to identify potential collaborations. The main participants of the Meeting were the Department of Hydrology and Meteorology (DHM), NRCS, Insurance Board and National Insurance Corporation. In continuation, second Consultative Meeting was held with CBDP Units, the grassroot stakeholders, at the target site on 3 January



## Proposed Methodology

- Participatory methods will be adopted to implement the two pilot actions. Considering differential solidarities of stakeholders, group discussions (GD) will be organized for individual stakeholder organizations.
- The purpose of stakeholders' workshop is to get consensus among the concerned stakeholders to implement the pilot actions.
- HCC will implement the pilot actions through NRCS in CBDP Units.

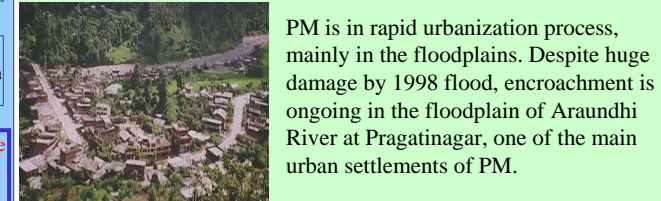


## Understanding Vulnerability to WCDs

Syangja is one of the most WCD (flood & landslide) prone districts of Nepal. Geologically, Syangja district is fragile and the district lies in the heavy rainfall zone of Nepal. Magnitude of 2-year return period of maximum daily rainfall has increased at PM in 1990s compared to the past decades.



The landslide prone areas are occupied mostly by poor. In one hand they do not have other options to migrate to safer place and on the other hand they are unaware of climate change issues.

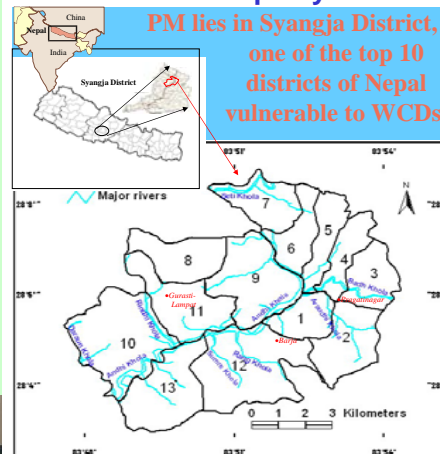


PM is in rapid urbanization process, mainly in the floodplains. Despite huge damage by 1998 flood, encroachment is ongoing in the floodplain of Arundhi River at Pragatinagar, one of the main urban settlements of PM.

Due to the lack of awareness about climate change issues and ignorance of WCD, the inhabitants are reluctant to find the alternatives other than staying in the same vulnerable regions.



## Pilot Action Area: Putalibazaar Municipality



## Highlighted gaps

- Lack of public awareness regarding climate change issues.
- CBDP units have pre-disaster activities but do not use weather and climate related information in their early warning systems. DHM issues special weather bulletins during extreme weather conditions but do not reach to the vulnerable communities.
- Status of the communities with weak economic resilience is worsening due to WCDs. Nepal government alone is not able to manage WCD losses. Although insurance sector is planning micro-insurance schemes in Nepal, application of such insurance in loss sharing has not been realized yet.

## Areas of future work

1. Based on the experience gained in two pilot actions, the program can be extended in other CBDP units.
2. Increase effectiveness of weather and climate services.
3. Extension of project outcome to vulnerable communities in other sectors.
4. Extension of community based insurance schemes in rural economy.
5. Extend and upscale public awareness campaign regarding climate change issues

### Contributors:

Dr. Madan L. Shrestha, Archana Shrestha,  
Dr. Keshav P. Sharma, Saraju K. Baidya (DHM)  
Dr. Narendra Khanal (Central Dept. of Geography)

### ACCCA Principal Investigator:

Dr. Sharad P. Adhikari (HCC)