
ANNEXES

The Field Visit to Kodari

Field Excursion to the Border Areas of Nepal and the Tibet Autonomous Region of China

The Objective of the Field Trip

The four-day consultative meeting began with one full-day field excursion to Kodari in the border area of Nepal and the Tibet Autonomous Region of China and some other places en route to the east of Kathmandu. The excursion took participants through the key towns of Bhaktapur, Dhulikhel, Tatopani, and Kodari following the route along the banks of the Bhote Koshi River. This was organised to offer participants an opportunity to observe the impact of disastrous floods on some of most affected areas in the headwater regions as well as to familiarise them with the works of ICIMOD and other agencies with regard to mitigation of floods, glacial lake outbursts, and flash floods along with the early warning systems and community-based landslide control activities.

Dhulikhel and PARDYP Presentation

The excursion began on the morning of 15th May with about 50 participants. The first stop for the participants was at the Dhulikhel town in Dhulikel District. The Mayor of Dhulikhel town welcomed the participants and thanked them for coming together to discuss issues of great importance to the countries of the HKH region. The Director General of ICIMOD, Dr. Gabriel Campbell, who

accompanied the participants to Dhulikhel also welcomed the participants and encouraged them to get to know other participants during the trip.

A well-illustrated presentation was made by a team from the People and Resource Dynamics Project (PARDYP) of ICIMOD. The presentation focussed on the participatory integrated watershed management works being carried out by the project in the Jhikhu Khola watershed of Kavre Palanchok District close to Dhulikhel. The project activities included hydrological studies that would help mitigate the impact of flood disasters in the watershed area; improved management of land and water; soil conservation; and improved agricultural and other land uses for poverty alleviation. The lessons learned from the project were also presented and discussed.

Visits to Bhote Koshi Hydropower Plant and the Friendship Bridge

After the briefing on PARDYP, the participants proceeded to Kodari which is a town in the border area of Nepal and the Tibet Autonomous Region. On the way to Kodari, the participants visited the Bhote Koshi hydropower plant. They also observed the bridges damaged by recent floods and the new Friendship Bridge on the Bhote Koshi River and the other one at Fulping which were constructed after their destruction by the disastrous glacial lake outburst floods originating from across the border some years back. The group returned to Kathmandu in the evening.

Agenda and Programme of the Meeting

CONSULTATIVE MEETING ON Developing a Framework for Flood Forecasting in the Hindu Kush- Himalayan Region

Programme Agenda

Monday, 14 May Arrival of Participants
17:00 – 18:30 Registration (Hotel Himalaya)

Tuesday, 15 May
07:30 - 17:30 Field excursion to Kodari,
Nepal-Tibet (China) border

Wednesday, 16 May
Venue Hotel Himalaya
09:00 – 09:30 Registration
09:30 – 10:20 OPENING SESSION
10:30 – 11:30 Group Photo / Tea Break

11:30–18:00 WORKING SESSION

11:30 - 16:00 Session I

Theme: Assessment of the status and needs for regional cooperation in flood forecasting

Chair: Bangladesh: Mr. A.Y.B.I. Siddiqui, Secretary, Ministry of Water Resources

11:30 Explanation of the programme agenda and expected results of the meeting, W. Grabs

11:35 Adoption of the Agenda

Case Study Presentations

Bangladesh

11:40 Flood forecasting activities in Bangladesh and the recent floods in the Southwest Region, A.N.H. Akhtar Hossain

Bhutan

12:00 Flood impact on investment and life - A presentation of the report on Dutekhla and Pasakha (Barsachhu) floods in Phuentsholing, Dorji Namgay

China

12:20 Recent flood events and proposal for an early flood warning system in the Chinese Himalayas, Qin Dahe

12:40 The important role of hydrological data in flood forecasting in the Tibet region, Gong Tongliang

13:00 Lunch break

India

14:00 Flood forecasting in India: Meteorological aspects, R.R. Kelkar
State-of-art flood forecasting – Advancement and issues, S.B. Srivastava and Mr. R. Yadav

14:20 Flood forecasting in the Brahmaputra River, India: A Case Study, Dulal C. Goswami

Pakistan

14:40 Flood-forecasting system in vogue in Pakistan with a case study on the 1992 flood in the Jhelum River (Indus River Basin), Md. Munir Sheikh

15:00 Floods and flood forecasting in the Indus Basin: A case study from Pakistan, Md. Akram Kahlowan

Nepal

15:20 Flood hazard in Nepal and that need for flood forecasting in the HKH Region, K.B.Thapa & N. R. Khanal

15:40 Discussion and Chairperson's Remarks

16:00 Tea Break

16:15-18:00 Session II

Theme: Assessment of the status and needs for regional cooperation in flood forecasting (continued)

Chair: Bhutan: Mr. Dorji Namgay, Executive Engineer, Hydrology Unit

16:15 A framework for regional flood forecasting in the Ganga-Brahmaputra-Meghna (GBM) Basin, Guna Paudyal

16:40 Regional cooperation in flood forecasting, W. Grabs

Existing regional network and cooperation including UNESCO's HKH-FRIEND project, S. R. Chalise

The Mekong River Commission, L. Geerinck and T. Insisiengmay

17:40 General Discussion and Chairperson's Remarks

18:00 Meeting Adjourns

19:00 Reception/Dinner hosted by the DG of ICIMOD at Hotel Soaltee

Thursday 17 May

09:00–10:30 Session III

Theme: Technical presentation on flood forecasting systems:

Chair: China: Dr. Qin Dahe, Chief Administrator, China Meteorological Administration

9:00 Review of the previous day's activities, M. D. Manandhar

9:10 Flood forecasting in the United States - An Overview, Richard Paulson

9:30 Geospatial stream flow model for flood hazard monitoring in Africa, James Verdin

9:50 Monitoring and data dissemination: developing a framework for flood forecasting in the HKH region, Mark Landers

10:10 Discussions on the presentation

10:30 Tea break

10:45-13:00 Session IV

Theme: Development of a technical concept for regional flood forecasting

Chair: India: Dr. R.R. Kelkar, Director General, India Meteorological Department

10:45 Introduction to the tasks of three proposed break-out groups - W. E. Grabs

Group 1 Cooperative framework

Cooperation of meteorological and hydrological services in the region

Bilateral and regional mechanisms

Conceptual framework for cooperation

Group 2 Technical requirements

Network requirements

Use of real time data

Models used for flood forecasting in the region

Group 3 Dissemination and use of flood-forecasting products

Exchange of data and information

Communication facilities

Dissemination and use of flood forecasting products

11:00 – 12:00 Group discussion of the break-out groups

12:00 Results of break-out groups and general discussion

13:00 Lunch Break

14:00– 17:15 Working Session V

- Theme:** Development of a strategy for regional cooperation in flood forecasting
- Chair:** Pakistan: Mr. Riaz Ahmad Khan, Chairperson, Federal Flood Commission
- 14:00 Steps for development of a strategy for bilateral and regional cooperation for flood forecasting in the HKH, W. E. Grabs/S.R. Chalise
- 14:10 Work in break-out groups:
- Group 1 Next steps for development of a framework for cooperative arrangements
- Group 2 Next steps for development of data and information exchange mechanisms related to flood forecasting
- Group 3 Next steps for development of an operational, regional flood forecasting system
- 15:30 Tea Break
- 16:00 Results of the break-out groups and general discussion
- 17:00 Concluding Remarks by the Chairperson

Friday, May 18

- 09:00-12:00 Session VI**
- Theme:** Development of an Action Plan for the establishment of a regional flood-forecasting system
- Chair:** Dr. J. Gabriel Campbell, Director General, ICIMOD
- 09:00 Review of the previous day's activities - Ken Afful/M.D. Manandhar
- 09:10 - 10:10 Elements of an action plan for collaborative flood forecasting systems
- a) Suggestion from Principal Delegates
Bangladesh, Bhutan, China, India, Nepal, Pakistan
- b) Suggestions from Observers
- 10:10 - 11:00 General Discussion and Chairperson's Remarks
- 11:00 - 11:30 Tea break
- 11:30-13:15 Session VI: Concluding Session**
- Theme:** Framework for regional Cooperation in Flood Forecasting and Management: Results and conclusions
- Chair:** Nepal: Mr. Mahesh Man Shrestha, Secretary, Ministry of Science and Technology
- 11:30 Presentation of the summary of draft report, M.D. Manandhar/K Afful
- 11:50 Comments and Endorsement
- 12:10 Concluding Remarks by W. Grabs/Kuniyuki Shida
- 12:20: Concluding Remarks by Binayak Bhadra
- 12:30 Concluding Remarks by the Chairperson
- 12:40 Lunch
- 14:00 End of the Meeting

For all the sessions:

- Moderators:** M.D. Manandhar and Ken Afful, Organisation Development Centre (ODC)
- Rapporteurs:** ODC

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