
Day Four: Development of an Action Plan for the Establishment of a Regional Flood Forecasting System

Chairperson: Dr. J. Gabriel Campbell, DG, ICIMOD, Nepal

Action Plan Presentation

The last day of the consultative meeting began with a presentation by the Director General of ICIMOD on a draft Action Plan for Regional Cooperation for Flood Information Exchange. Dr. Campbell was also the chairperson for the first session of the fourth day of the meeting. The action plan was prepared using information provided by the break-out groups during the morning and afternoon sessions (See Table 4.1.).

Comments and Suggestions from Participating Countries and Observers

Dr. Campbell expressed the view that the objective of the day was to get a clear outlook of how all the participants would move forward in helping to implement the recommendations made during this meeting.

He asked representatives from each country to make comments and suggestions that would help carry the next stages of the process forward. Representatives from four countries (China, India, Nepal, and Pakistan) made observations and comments.

TABLE 4.1.
Revised Action Plan for Regional Cooperation for Flood Information Exchange

Events/Activities	Specific Outputs	Completion Date	Responsible	Remarks
Workshop Proceedings	<ul style="list-style-type: none"> ▼ Preparation ▼ Draft to be circulated to participants ▼ Feedback from participants ▼ Revise Proceedings ▼ Panel Member Nominated ▼ Panel Meeting ▼ Draft concept paper for Regional Cooperation for Flood Information Exchange ▼ Feedback on Draft concept paper ▼ Draft final concept paper ▼ Endorsement by participating countries ▼ Development of Project Document 	<ul style="list-style-type: none"> June 2001 June 2001 August 2001 September 2001 October 2001 June/July 2002 November 2001 January 2002 February 2002 May 2002 June/July 2002 	<ul style="list-style-type: none"> ODC/WMO/ICIMOD ICIMOD/WMO Participants ICIMOD/WMO Each Country Delegate ICIMOD/WMO/UNESCO/HKH-FRIEND WMO/ICIMOD/UNESCO/HKH-FRIEND Participants WMO/ICIMOD Participating Countries Participating Countries/WMO/ICIMOD 	
Constitute Consultative Panel	<ul style="list-style-type: none"> ▼ Web page prepared and open system database established 	March 2002	Participating Countries/ICIMOD/WMO	
HKH-HYCOS Formulated	<ul style="list-style-type: none"> ▼ Technical papers developed by selected experts from the Region on: <ul style="list-style-type: none"> - Vulnerability to flood - Data and Information (Information needs and costs, standardisation of data from acquisition, transmission, processing, archiving, to access) - Other studies 	May/June 2002	ICIMOD/WMO	
Regional Information Exchange Preparation of Technical Papers	<ul style="list-style-type: none"> ▼ Conducting follow-up technical meeting 	June/July 2002	ICIMOD/WMO	
Follow-up Technical Meeting and HKH-HYCOS Consultative Meeting	<ul style="list-style-type: none"> ▼ Conducting HKH-HYCOS consultative meetings 	June/July 2002	ICIMOD/WMO	

Notes: WMO: World Meteorological Organisation; ICIMOD: International Centre for Integrated Mountain Development; ODC: Organisation Development Centre

The following observations were made by the participants.

Chinese Participants

- Data exchange should be given importance, especially meteorological data.
- Importance should also be given to flood information exchange, especially real-time data.
- Willing to sign other regional cooperation treaties.
- ICIMOD and sponsors deserve thanks for a successful meeting and we would like to participate in future workshops.
- We strongly endorse the Action Plan to move ahead in this direction.

Indian Participants

- The idea of the website is good because it belongs to everybody and it is apolitical. Other participating countries should also get a chance to contribute to the web page.
- The Action Plan is good.
- The action now should be to save lives.
- Recommendations should be given on something that does not get lost.
- It is good to have technological arrangement for sharing information but there must be a continuous technical upgrading of websites.

Nepalese Participants

- The main point is that the Action Plan should be implemented with support from the governments otherwise the process will be very slow.
- Consultation regarding the website should take place among the countries.

Pakistani Participants

1. The meeting has been a good initiative, including preparation of documents.
2. The final draft report needs approval from the government.
3. The concept paper should be based on the delegates' opinion.
4. Since monsoon is approaching, as a starting point in cooperation, data regarding flood forecasting, etc. should be exchanged through e-mail/telephone.
5. ICIMOD should sponsor small projects in flood forecasting.
6. More funding should be provided for training and capacity building.

Comments from Observers

In addition to representatives from participating countries, international experts, and representatives from the sponsors, there were observers who made some comments. These are summarised below.

1. The full agreement that everyone has come to on the Action Plan is welcome and a great achievement.
2. Quite a lot of information is available on the websites.
3. In terms of future work, care should be taken not to exaggerate the damages caused by floods. Sometimes there is a tendency to project an unrealistic and exaggerated picture of the destruction caused by floods to get more funds. But this might backfire in the long run.
4. People should be informed about floods. There is no access to e-mail/internet for people at the grass-roots level and many others. In Bangladesh, NGOs are now invited to collaborate for establishing links with the population.

5. Representatives of some donor agencies observed that the meeting was very encouraging and that they were interested and willing to help reduce the risks of floods. They also informed that they were supporting small projects and whatever techniques have been developed are being used in reducing vulnerability.
6. The best practices should be shared. However, while exchanging information the suitability should be taken into account since some have mountains and others have the plains.
7. If clear data were provided NOAA would be more than happy to help and provide support.
8. It has also been realised that there is a large component of technology that needs to be tested.
9. Cost sharing issue should be documented. Capacity building should take place in terms of training and education and every country's needs should be taken into consideration with regard to this.
10. The action plan is good. We should all be excited about this very positive atmosphere and outcome of the meeting. Focus should be on each stage in moving ahead and not on all of them to prevent being overwhelmed by the tasks ahead.
11. Related people from other sectors also need to be informed about flood forecasting.
12. If we do a study of experiences and practices the technical papers could be made better.
13. We must use this commitment to move forward. The action plan has been unanimously accepted.

Concluding Remarks by the Chairperson

In his concluding remarks, Dr. Gabriel Campbell stated that the organisers were fortunate to have the support of all the participants. He remarked that a milestone had been achieved by the meeting. Dr. Campbell remarked with pleasure that the meeting had actually succeeded in establishing a road map for developing regional sharing of flood forecasting information. This would have been impossible without the commitment shown by all the participants. He suggested that the process should be promoted through leadership in the respective countries. Dr. Campbell concluded that there are other challenges ahead before what has been agreed to at the meeting can be realised. He emphasised that the optimism displayed at the meeting should be imbued with commitment to follow through in each country. He concluded by expressing confidence that the countries of the region will give full support to this initiative and thanked the participants for their vision and cooperation.

Concluding Session: Framework for Regional Cooperation in Flood Forecasting and Management - Results and Conclusions

Chairperson: Mr. Mahesh Man Shrestha, Secretary, Ministry of Science and Technology, HMG/N

Presentation and Approval of Results

During the second part of the concluding session a summary draft report of the four-day proceedings was presented for discussion and approval. A press release was also read and approved.

A Summary Report of the Four-day Proceedings

The report began with a brief overview of the one-day field trip to the Chinese Border (see Annex 1). It was a trip for participants to experience the effects of flood on some of the most affected areas of Nepal and to see what organisations such as ICIMOD was doing to support communities in selected watershed areas of central and eastern Nepal.

The working sessions of the meeting were held over three days and covered a variety of subjects on flood forecasting and information sharing. The meeting attracted over sixty participants from six countries of the HKH region including Bangladesh, Bhutan, China, India, Pakistan, and Nepal as well as representatives from donor agencies and international scientific organisations. About hundred participants, observers, and guests attended the opening session, which was officiated by the Honourable Minister for Science and Technology, Mr. Surendra Prasad Chaudhary. The Honourable Minister reminded the participants of the importance of working together to arrive at a consensus on developing a practically-workable agenda for flood forecasting for the region in order to enable the participating countries to better manage and mitigate the adverse impacts of floods within the region in a spirit of genuine cooperation and good will. Other speakers also made reference to the need for effective information sharing on flood forecasting in the region.

The first day's working session began with presentations of cases by participating countries and international experts. They outlined flood-related issues in their own countries and emphasised the need for information sharing and effective flood forecasting in the HKH region. In all the presentations it was agreed that floods continue to create havoc in all countries of the HKH region and that there is a need for further cooperation and coordination of their activities. All countries expressed a need for improvement in flood forecasting systems in hydro-meteorological networks with real-time capacity and data quality.

Day two started off with three technical presentations by international experts. The session continued with two break-out sessions (morning and afternoon), followed by plenary presentations. There was general acknowledgement of the increasing problems of floods and the havoc it wreaks on a large number of the region's population. There was also a suggestion that there should be flood information sharing rather than flood forecasting. An Action Plan for the establishment of a forum for the coordination of regional cooperation in flood information sharing, with WHYCOS/ICIMOD as the focal point, was proposed.

The final day began with the presentation by the Director General of ICIMOD on a draft Action Plan for Regional Cooperation for Flood Information Exchange. The action plan was prepared using information provided by break-out groups during the morning and afternoon sessions and was endorsed unanimously.

Concluding Remarks by Dr. Wolfgang Grabs, Chief, Water Resources' Division, WMO

In his closing remarks, the representative of WMO, Dr. Wolfgang Grabs, noted that the efficient exchange of data and information and improvements in flood-forecasting capacities are the priorities of WMO's programme on Forecasting and Applications in

Hydrology and the implementation of regional projects of the WHYCOS. WMO, therefore, welcomed the consensus of the participants to jointly develop a project for flood information exchange in the HKH region. In this regard, he assured the participants of the sincere commitment of the WMO Secretariat to support regional and national activities in the development of HKH-HYCOS, tailored to the needs of the countries in the region.

The cooperative spirit demonstrated by all participants and the valuable contributions provided by the invited technical experts were essential to successfully achieve the objectives of the meeting. The tangible expression of this success is the agreement on activities and milestones to be achieved within the next twelve months. He thanked the donors of the meeting and the hosts, namely, ICIMOD and the Department of Hydrology and Meteorology of HMG/N, for their efficient handling of the meeting and cordial hospitality.

Concluding Remarks by Dr. Binayak Bhadra, Director of Programmes, ICIMOD

Dr. Bhadra recollected how the discussions on WHYCOS and regional cooperation on flood forecasting had started at the 2nd Steering Committee Meeting of the HKH-FRIEND in April 2000, which was sponsored by UNESCO and ICIMOD. He thanked the participants of this meeting for giving shape to the idea and for initiating the process by endorsing the Action Plan. He furthermore thanked all the participants present for their assurance of support for implementing the Action Plan and stated that a milestone had been achieved by the meeting. He noted further that the last three days had succeeded in developing a commitment among the participants to establish regional sharing of information for flood forecasting. The need now is to use this commitment to move forward and to make the Action Plan unanimous. Dr. Bhadra cautioned participants to be aware that there is a large component of technology that needs to be tested, and that there are challenges ahead, for example, in establishing effective institutional linkages among national institutions of the participating countries. There is, therefore, the need to promote this process through leadership in the respective countries.

Chairperson's Concluding Remarks

In his concluding remarks, the chairperson of the concluding session, Mr. Shrestha, commended all participants for the efforts they had put into making the meeting such a success. He stated that there are extensive flood problems in all the countries in the HKH region and pointed out that these floods which occur every year during the monsoon rains cause extensive damages to life and property in all the countries of the region. Mr. Shrestha suggested that there should be a way of forewarning flood-prone communities of such disasters before they are overwhelmed by them. He echoed the need for better quality data collection and careful planning in order to share information and data on a real-time basis. Mr. Shrestha concluded that all the participants through their active involvement in the plenary sessions as well as the group discussions had showed commitment. He therefore remarked that *'where there is a will there is a way'* and modern information technology will make it possible. He concluded by reminding participants that it is their collective responsibility to ensure the successful implementation of the action plan. They should therefore make efforts to help implement the action plan.