

# SESSION REPORT

## TITLE OF THE SESSION

Adopting Integrated Flood Management within the Integrated Water Resources Management

## SESSION CONVENERS

- River Bureau, Ministry of Land, Infrastructure and Transport; Japan
- Ministry of Transport, Public Works and Water Management of the Netherlands
- Ministry of Ecology and Sustainable Development of France and French Water Academy
- WMO/GWP Associated Programme on Flood Management

## KEYNOTE SPEAKERS

- Masato Seiji Vice-Minister for Technical Affairs, Ministry of Land, Infrastructure and Transport, Japan
- Pascal Bertaud Director General, Water Bureau, Ministry of Ecology and Sustainable Development of France

## CONVENORS GENERAL REMARKS ABOUT THE SESSION

To build flood resilient communities, it is essential to take an integrated approach –linking land and water uses, flood risks, socio-economic development and the protection of natural ecosystems through appropriate institutional framework and public participation.

Damage due to flooding is increasing over the years and more rapidly during the last few years: recently the extreme floods are turning more often into disasters.

To build flood resilient communities, it is essential to take an integrated approach: factoring flood risks in water resources management, land uses, socio-economic development and the protection of natural ecosystems through appropriate institutional framework and public participation.

Japan, the Netherlands and France have joined together for tackling Integrated Flood Management in each of the country by exchanging the information and knowledge. WMO is supporting the advocacy and implementation of IFM by sharing the accumulated knowledge and conducting the pilot projects to demonstrate the applicability of the Integrated Flood Management concept in the field through the Associated Programme on Flood Management.

## SYNOPSIS

In this session, through the presentations and discussion, various practical experiences, good practices and lessons learned including difficulties and problems, with their consequences and their optional remediation and solution were analyzed and shared, in order to facilitate the countries in adopting an Integrated Flood Management approach.

## LOCAL ACTIONS PRESENTED DURING THE SESSION

Through the presentations of Local Actions and panel discussion, some of the practical experiences, good practices and lessons learned including difficulties and problems, with their consequences and possible solution were analyzed and shared.

- Community Approach to Flood Management in South Asia (LA1258)

The presentation deals with experience and lessons of a local action on involvement of village community in flood management in Bangladesh, India and Nepal, the three major flood prone countries of South Asia. An entirely new approach having far reaching implications for the people of flood prone areas has been developed during the last three years under the auspices of Associated Program on Flood Management (APFM) of GWP & WMO. The implementing organizations were Bangladesh, Unnyan, Parishad, (BUP) (contact person Dr. Q.K.Ahmad) for Bangladesh; Institute for Resource Management and Economic Development (IRMED), Delli (contact person Professor Kamta Prasad) for India; and Jalsrot Vikas Sanstha (JVS) (contact person; Pradeep Mathema) for Nepal.

Local level communities in the frequently flooded areas of the three countries have been involved in aspects of flood management for which they are better equipped. Local communities were empowered through capacity building and creation of an appropriate institutional framework. A Manual on Community Approach to Flood Management has been developed in each country. The said Manual was tested twice in all the three countries during actual flood situations in 2004 and 2005. A process of multiplying the experiments has started. National level workshops in each country participated by policy makers have been held with positive outcome. A Regional Workshop is scheduled in first week of April. Favourable response from a government agency to multiplication of the Local Action to a limited extent has already been received in India. Much more support needed from donors.

- Plan Loire Grandeur Nature (PLGN) (LA0803)

The "Plan Loire grandeur nature" (PLGN) is a project concerning the river Loire, in France. It involves various actors for developing a new approach of the flood risk management.

For that purpose, the plan addresses three priority topics: security against flood risk; improvement of water resources management in the landscape; reinforcement of the natural assets wealth. It aims at fulfilling these three topics in parallel.

The PLGN is a global land planning plan for the river Loire which was initiated during the third part of the 20th century by the French government. Given the valuable first outcomes, the French government offered to the local partners to enlarge the project to the whole catchment. That proposal led to setting the current inter-regional program "Loire Grandeur Nature" planned for the period 2000-2006.

- Tama River Improvement Plan (LA1472)

"Tama River Improvement Plan" is a crown of many people's labors, and was almost a large-scale pilot program by itself. During the formulation of the plan, concerned residents jointly with the basin and government administrators thoroughly observed the river status and discussed all critical related issues. In the plan, the perspectives of "flood control", "water use" and "environment" as well as "operation and maintenance" are integrated in holistic manner.

- River widening project: the Overdiepse Polder (river Meuse, the Netherlands) (LA1739)

This local action, the Overdiepse Polder, is located in the downstream part of the River Meuse. The water level rises 0,3 meter in this part of the River Meuse because of higher river discharges. Widening this section of the river prevents this water level rise. The dikes in this river section need no raising or adaptation because of this measure. River widening in this section is realized by repositioning the dike some 500 meters in the inland direction. The existing agricultural area of approx. 550 hectares is positioned outside of the dike through this measure. The existing farmhouses (17 dairy farms) will be pulled down and rebuilt on flood protected mounds along the new dike. The river will utilize the new area outside of the dike once in 25 years on estimate. This allows the continued agricultural use of the area. In case of floods, the farms with their houses and cattle are high and dry on the mounds. After a few weeks maximum, the land is usable again. The concept for this

arrangement of the area came from the inhabitants and enterprises themselves. They took the initiative to make sure that they were involved in the planning from the very beginning. The authorities because of this broad social basis chose, among others, this measure.

## **LESSONS LEARNED**

- Collaboration between public and government agencies with involvement of government representatives has to be based on local concerns and sensitivities.
- Transparent processes and timelines make public participation easier.
- Regional authorities should be involved to develop local plans.

(Lessons learned from the Local Action from Bangladesh, India and Nepal)

- Sustained effort is needed to work out the modality for operationalising optimal level of community involvement in flood management.
- This would require efforts to seek the support of the local bureaucracy and empower the local community.
- Community participation is the best method for implementing Integrated Flood Management.
- It also helps build resilience among the community and reduces vulnerability. Research oriented NGOs are best suited to handle this task.
- It needs to be recognized that community participation in flood management as elsewhere comes at a cost and is a timeconsuming process that needs a longterm perspective and ongoing commitment to ensure the sustainability of the approach.
- Empowerment of local communities to play a role in flood management in their own capacity is required.

(Lessons learned from the French Local Action)

- Integrated Flood Management needs to integrate the different policy sectors in order to reconcile the objectives of flood control and the natural environment,
- Water resources development and management needs to federate all the stakeholders (State, local authorities, riparian, NGOs) toward the same objective, to reconcile the different interests, in order to convince the stakeholders on the need for carrying some actions and the positive feedback foreseen.

(Lessons learned from the Japanese Local Action)

- Preventive measures are often more efficient than reactive measures
- Involvement of various stakeholders in the planning process, consequently, saves costs in the long run
- Excessive events (larger than the design standard for flood defences) should be taken into account for minimizing losses
- Hydrological impact of basin development should be assessed and appropriate measures be taken for preventing or mitigating the negative impacts

(Lessons learned from the Dutch Local Action)

- Collaboration between residents and government benefits both parties
- Communication on basis of equality is essential
- Government has to be sensitive to local concerns
- Deal with uncertainties

- Transparent processes and timelines make public participation easier
- The involvement of government representatives is essential to achieve results
- Regional governments are the best level to develop plans within local perspective
- There is a need to clearly identify the respective roles and responsibilities of various levels of government in flood management reaching from local to regional to national.

## **KEY MESSAGES**

Following key messages, giving conclusions in general terms, are important in factoring flood risks within Integrated Water Resources Management:

- Integrated Flood Management should aim at minimizing the losses of life from flooding and maximizing the net benefits from flood plains.
- In these efforts it should be recognized that floods have positive as well as negative aspects that need to be taken into account in flood management.
- Integrated Flood Management requires a clear identification and assignment of respective roles and responsibilities of various levels of government reaching from the local to the international levels.
- Recognizing the importance of land and water management and to balance the structural and non-structural measures while giving due consideration to preservation and restoration of natural environment and community participation, mechanisms for implementation should be strengthened.
- Striking a good balance of different measures, based on comparative advantages, is crucial in achieving the objectives of IFM.
- IFM requires a multi-disciplinary approach for which a continuous dialogue between professionals from different disciplines and the general public is needed.
- It is important to engage with public participation processes on a long-term basis
- Create a basis for developing and strengthening capacities in the countries by supporting local and regional actions that advocate, support or demonstrate the IFM principles, e.g., by:
  - establishing a platform for the various stakeholders to discuss issues,
  - taking into consideration social and cultural aspects for promoting education, information sharing and public participation.
- Provide international support to the efforts of the countries and other agencies in this direction at adequate scale.
- Awareness on flood risk and water issues in general can be increased and strengthened through non-traditional channels and means such as games, theatre etc.
- Regional cooperation in flood management is of particular importance for international river basins. There are a variety of areas of cooperation in flood management, including but not limited to flood risk assessment and flood risk management plans.

## **ORIENTATIONS FOR ACTION**

Funding agencies should support Integrated Flood Management approaches at national and international levels.