

IV

TALLER INTERNACIONAL SOBRE ENFOQUES REGIONALES PARA EL DESARROLLO Y GESTIÓN DE EMBALSES EN LA CUENCA DEL PLATA

29 de Noviembre al 2 de Diciembre 2005

Salto Grande, Argentina-Uruguay

"MEJORES PRÁCTICAS EN LA PLANIFICACIÓN Y GESTIÓN DE EMBALSES. PROCESOS PARTICIPATIVOS DE DECISIÓN"

FOURTH INTERNATIONAL WORKSHOP ON REGIONAL APPROACHES FOR THE DEVELOPMENT AND MANAGEMENT OF RESERVOIRS IN THE RIVER PLATE BASIN

“Best practices in the planning and management of reservoirs. Decision-making participative processes”

*November 29 to December 2, 2005
Salto Grande (Argentina-Uruguay)*

CONCLUSIONS AND RECOMMENDATIONS

The participants of the Fourth International Workshop on Regional Approaches to the Development and Management of Reservoirs in the La Plata Basin, in view of the presented papers, the discussions and the recommendations emerging from the Plenary and Working Group Sessions and the Special Workshop for the identification of case studies for the sustainable management of reservoirs, agreed to submit the following conclusions and recommendations to the consideration of the governments of the member States of the La Plata River Basin and the Intergovernmental Coordinating Committee:

Progress achieved as regards the recommendations of the III International Workshop

The participants note the efforts and progress achieved in the implementation of the general and specific recommendations of the III International Workshop convened in Posadas (Argentina) on March 2001, in particular regarding the implementation of regional projects aiming at the integrated management of water resources in the context of the basin; the importance given to the incorporation of environmental and social aspects in the planning and management of reservoirs, including the consideration of the recommendations of the World Commission on Dams (WCD); and the technical strengthening of the Intergovernmental Coordinating Committee of the countries of the La Plata River Basin (CIC).

They highlight the progress achieved regarding hydrological, limnological and biological monitoring of reservoirs and their basins in support of its integrated management; the particularised monitoring of small reservoirs and reservoir sedimentation; use of modelling techniques and the dissemination of its results, including capacity building and the application of such techniques to the diagnosis of the status of reservoirs and to water management; and the greater role given to public participation as a constitutive element of decision making processes.

Conclusions

The participants:

Agree that the deliberations at this IV Workshop constitute a positive step in the pathway signalled by those recommendations in the context of the changes that took place in the region after the convening of the III Workshop and they underscore the important technological evolution demonstrated by the presented papers.

Recognise the contribution of reservoir management to the achievement of the Millennium Development Goals, dealing with poverty alleviation, environmental sustainability and sustainable development.

Emphasise the existence in the region of a more structured approach to the management of fisheries upon scientific basis and its integration into water resources management and the functioning of water systems.

Note the incorporation of the economic dimension of the water resources management highlighting the role of water in the economy.

Observe a greater concern about the linkages between scientific and water resources management processes as reflected by a mutual and productive interaction and recognising of their respective roles.

Point out that significant efforts have been devoted to building capacity for the management of reservoirs and watersheds as it is shown by the various academic initiatives created in the Basin.

Signal the progress made regarding public participation in the decision making processes.

General Recommendations

The participants recommend to:

- Give importance to the effects of climate change in the joint planning of water and energy resources, the development of new reservoirs and the management of the existing ones and continue with and reinforce the formulation and coordination of emergency action plans basin wide.
- Reiterate the need to consolidate the process of integrated water resources management of reservoirs and their basins with emphasis in the optimisation of their multiple uses and the integration of the biogeophysical, economic and social processes that take account of the hydrologic cycle.
- Emphasise the need to promote that regional and basin level planning incorporates water resources management, understanding that those are the appropriate contexts for decision taking on reservoir development.
- Deepen and generalise public participation in decision-making concerning reservoir development and management. Recognise the need to strengthen regulatory frameworks and raise the awareness of decision makers to achieve an effective participation of all stakeholders leading to the public acceptance of key decisions.
- Continue and expand the consultation and discussion of the WCD strategic priorities in the countries of the La Plata River Basin and at a regional level aiming at the harmonising of policies concerning the planning and management of reservoirs.

- Call the attention of water, health and environment authorities upon the pressing expansion of the phenomenon of eutrophication of surface water and its impact on groundwater, taking into account its serious economic, ecologic and social consequences. Promote the regional integration of studies and management at scientific, technological and operational levels.
- Further take up and improve the production of fishery statistics as a basis for the effective management of the resources in a sustainable way.

Specific recommendations from Plenary Sessions

1. Impact of climate change on dams and reservoirs

- Incorporate the consideration of climate change in the systematic evaluation of the operation and safety of existing reservoirs taking into account the hydrological and ecological impacts resulting from flow, temperature and evaporation changes.
- Promote, within a framework of regional coordination, the development of tools for the prediction of future scenarios with a certainty level compatible with planning needs of new reservoirs and the adaptation of existing ones.
- Elaborate scenarios of impact assessment of climate change with emphasis in the economic consequences and integrating water and energy, water and health and water and food production.
- Elaborate models for evaluating the repercussions of climate change on the costs of water treatment because of potential increase of eutrophication.
- Request to the governments of the member States and the Intergovernmental Coordinating Committee of the La Plata River Basin that through the Framework Programme of Action studies and actions be carried out concerning the incorporation of climate changes effects in the operation and safety of dams and reservoirs in the region.

2. Integrated management of basins and reservoirs

- The elaboration of legal frameworks ruling water resources should be citizen oriented within the context of a meaningful public participation framework.
- Deepen the consideration of the ecosystems in the management of reservoirs at basin level taking into account the economic value of the goods and services that they provide.
- Intensify the transfer of knowledge and management tools to water resources managers promoting a context of stability for the managerial staff.
- Intensify the training of managers with an integrated water resources vision.
- Establish open environmental and health education classrooms in the universities and other institutions.
- Promote the realisation of economic evaluations taking into account environmental and social aspects aiming at prioritising water uses and managing water quality.
- Increase efforts devoted to environmental monitoring of small reservoirs and the assessment of potential cumulative impacts given their territorial coverage and number in regions of the La Plata River Basin.

- Pay attention to the accumulation of toxic substances in reservoirs, its impact in various fish species affecting human health and its consequences in the collective security of the inhabitants of the La Plata River Basin. Integrate between the countries the control of water borne diseases and generate a permanent discussion forum of the impacts of these diseases in the population with emphasis on the schistosomiasis.
- Implement the systematic monitoring of all dams aiming at preventing accidents and damages downstream and the implementation of emergency action plans.

3. Best practices in participatory decision making processes

- Consider public participation as a substantive component of the process of obtaining public acceptance of key decisions concerning planning and management of reservoirs that takes into account issues of stakeholder identification and appropriate provision of information.
- Set the public participation level in accordance to the situation under consideration and appropriately inform the stakeholders about it at the beginning of the participation process.
- Strengthen the legal and regulatory framework aiming at integrating public participation into the norms that rule the planning, development and management of reservoirs.
- Promote the practice of informed participatory decision making processes through dissemination, awareness raising and training of the decision makers.
- Use the various available techniques associated to each intended public participation level in order to multiply the opportunities of participation, contributing to the transparency and effectiveness of the system.

4. Monitoring and modelling of reservoirs

- The implementation of water quality mathematical modelling should become a standard practice complementing every reservoir monitoring program with the ultimate goal of contributing to establish a water and environmental policy that guarantees their sustainability and social satisfaction.
- Further take up or start integrated climatological, hydrological, water quality and other monitoring programmes geared at configuring a baseline that will make possible the impact assessment of future dams.
- Strengthen the monitoring and modelling capacities by means of training courses.
- Produce technical handbooks through the coordinated effort of expert teams from the La Plata region
- Promote the use of methodologies for the presentation of modelling and monitoring results that facilitate the visualisation and understanding by the public of changes in the water quality of reservoirs as a result of different scenarios.
- Integrate basin land use and occupation studies into reservoir water quality studies.
- Establish a communication network considering GEMS/WATER UN as a reference among the institutions responsible for water quality in the La Plata basin
- Raise funds geared at disseminating new monitoring technologies in the La Plata basin, such as the use of hydroplane for the collection of water samples.

- Request the Intergovernmental Group on Environmental and Labour Health – MERCOSUR and the associated States the incorporation of the issue of eutrophication and toxic algae into its agenda.

5. Ecosystem approach: dams and conservation

- Improve through innovative methods the knowledge about the behaviour of migratory fishes (sábalos, dorados, surubíes, etc) in South American rivers to remediate the interruption of the migrations.
- Implement systems of follow up and control of commercial, artisan, subsistence and sport-recreational fisheries in the countries contributing to their knowledge at basin level.
- Integrate fisheries knowledge with other hydro-environmental studies, taking into account extreme events.

6. Eutrophication and impact of toxic algae

- Promote articulation between the scientific-technology sector and decision makers in order to ensure the implementation of measures, advancing beyond the stage of diagnostics.
- Incorporate the health prevention sector in the water resources management process.
- Disseminate the fact that water quality degradation affects water resources availability especially in scarcity conditions in order to raise the awareness of decision makers.
- Promote studies regionally coordinated on the assessment of the direct and indirect costs associated to the phenomenon of eutrophication aiming at their incorporation in the decisions concerning the implementation of measures to control the input of nutrients.

Conclusions of the working group

During the rich group discussions carried out a number of topics were addressed among which the following are the most significant;

Water quality degradation; climate changes and their influence on eutrophication and public security; interchange and access to information on dam safety and eutrophication; training of managers and institutional and human resources capacity building; dissemination of technologies and technological innovation; standardisation of analytical techniques; going beyond diagnostic training human resources to make prospective; water quality control network and invitation to integrate existing inter laboratory quality control networks; incorporation of social communication professionals to collaborate in community participation in water resources management; the need for processing the information accumulated by hydropower utilities.

As a result from the deliberations, decision was taken to put forward the following proposals:

1. Establishment of a working group integrated by organisations with regional representation tasked with assessing features, mechanisms and institutional setup for the creation of an environmental reservoir monitoring database. The group will provide concrete recommendations for action aimed at its implementation. The progress achieved will be assessed in the Fifth International Workshop. In order to materialise this proposal representatives of Nihon University (Japan) and the International Institute of Ecology (Brazil) committed initial financial support. This activity will be carried out in coordination with the CIC Plata.

2. Creation of a working group that operating through electronic media will be devoted to the standardisation of water quality data. This activity will be carried out too in coordination with the CIC Plata.
3. The materialisation of a regional initiative geared at consolidating information on the economic valuation of the effects of eutrophication and cianotoxines was recommended.