
ANNEXES

ANNEX A

WORKSHOP PROGRAMME

SATURDAY AND SUNDAY, 14 AND 15 JUNE

Participant registration and technical visits

MONDAY, 16 JUNE

08.00-09.00	Registration
09.00-10.00	Welcome
10.15-10.45	<i>Opening addresses: Moujahed Achouri and Larry Tennyson</i>
10.45-11.00	<i>Presentation on Latin American watershed management assessment: Pablo Sosa</i>
11.00-12.00	<i>Presentation: Henry Tschinkel</i>
12.00-13.00	<i>Presentation and discussion of results of major topics addressed in congress</i>
14.30-16.00	<i>Continuation: Presentation and discussion of results of major topics addressed in congress</i>
16.15-18.30	<i>Working groups: three groups will work on topics related to the workshop goals. (Specific topics to be defined.)</i>

TUESDAY, 17 JUNE 17

08.30-11.00	<i>Working groups</i>
11.15-13.00	<i>Working groups</i>
14.30-16.30	<i>Working group reports and discussion</i>
16.45-18.00	<i>Continuation: Working group reports and discussion</i>
18.00-18.30	<i>Workshop closing session</i>

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ANNEX C

THEMES OF THE LATIN AMERICAN CONGRESS ON WATERSHED MANAGEMENT

The Third Latin American Congress on Watershed Management was held from 8 to 13 June 2003 in Arequipa, Peru, immediately prior to the Workshop on Preparing the Next Generation of Watershed Management Programmes and Projects. Nearly 1 000 specialists in various disciplines related to watershed management participated at the congress, which was organized around the five following principal themes:

- policies, legislation and institutions for integrated watershed management;
- economic and financial aspects of watershed management;
- social and cultural aspects of watershed management;
- watershed management research and capacity building;
- management instruments for watershed management in mountain areas.

Each of the themes included several areas of interest. A total of 21 workshops were held, at which nearly 300 papers were presented and discussed. The following characteristics of the next generation of watershed management programmes and projects are based on the conclusions and recommendations of these congress workshops.

THEME I – POLICIES, LEGISLATION AND INSTITUTIONS

Legislation

- Legislation that recognizes watersheds as planning and management units for natural resources.
- Rules that clearly define State authority and national-, regional- and local-level competencies regarding integrated watershed management, including technical criteria. Consistency between general and sectoral rules is necessary.
- Legislation to develop mechanisms for inter-institutional consensus that ensures the success of policies.
- Legally defined and stable incentive programmes, which are implemented in ways that ensure the sustainable management of natural resources.

Public and private institutions

- Institutional coordinating mechanisms identifying the integrated watershed management actions that stakeholders should follow.
- Political will to apply an integrated watershed management approach that includes participation, economic growth and the efficient and sustainable management of natural resources.
- Stable watershed authorities that have legal status, funding and appropriate representation at decision-making levels.

- Clear terminology and concepts for watershed and water management issues, which clarify the roles played by national, regional and local watershed institutions.
- A legal framework for formulating watershed master plans and land-use planning.
- Trained personnel who can meet the requirements of land-use planning.
- Acceptance of watersheds as the territorial units for implementing sustainable development policies, plans, programmes and projects.

National policies and strategies

- National policies that use consensus, participation and legislation to manage the water, natural resources and environment of watershed territories for the development and improvement of inhabitants' quality of life.
- All sectors' participation in the formulation of watershed management policies.
- Watershed authorities or commissions with decision-making power based on consensus from all sectors.
- Mutually beneficial incentive policies to encourage progress in watershed management.
- Watershed management's clear inclusion in public budgets as a major component of national policy.

International watersheds

- Recognition of international watershed management as a powerful instrument for promoting integration, cooperation and peace processes at the subregional and regional levels.
- Sound international watershed management agencies that represent all national and local actors.
- Incorporation of an ecosystem approach in the management of international watersheds.
- The use of experiences from Latin America as the basis for a regional approach to international watersheds.

THEME II – ECONOMIC AND FINANCIAL ASPECTS

Payment systems for watershed environmental services

- Use of the following methodologies to valuate the environmental services of watershed programmes: a) opportunity cost, based on the values of renewal, replacement, change in use, alternative use or avoided expenditures; b) optimization models, based on obtaining shadow prices for specific environmental and socio-economic constraints according to environmental externalities; and c) willingness to pay, based on beneficiaries' creditworthiness and perception of the value of the environmental services that are provided.
- Clear definition and quantification of users, suppliers and services, based on supply and demand for environmental services. Independent financial facilities that use external financial resources to make fair compensation for providing environmental services.
- A project monitoring system including baselines and socio-economic and environmental impact studies.
- Use of payments for environmental services as a way of enhancing the efficiency of natural, social and income-generating resource allocation and generating new sources of funding for the conservation, restoration and valuation of watershed natural resources.

Other economic and financial aspects of watershed management

- Financial mechanisms that are based on the results obtained by integrated watershed management projects.
- Development of ecotourism in strategic areas of the watershed as a way of diversifying funding sources and improving the rural population's quality of life.
- Master plans for protected natural areas that are compatible with watershed uses.

THEME III – SOCIAL AND CULTURAL ASPECTS OF WATERSHED MANAGEMENT

Community participation

- Community participation at the national and municipal levels, based on a bottom-up approach with horizontal linkages between local authorities and organizations.
- Political will to maintain continuity for sustainable local development and stakeholder participation through consensus.
- Plans, programmes, projects and activities that are based on sustainable watershed management models and community participation in order to achieve a balance between people and nature.

Role of indigenous communities

- Rational watershed management and biodiversity conservation that make use of traditional methods for conserving, managing and utilizing genetic diversity.
- Programmes that preserve multi-ethnic and multicultural technologies, knowledge and customs, and revalue traditional cultural heritage, local culture, land and water management and self-sustaining systems that have existed for millennia in Latin America and the Caribbean.

Decentralization

- Local government watershed agencies that represent all the different social and economic stakeholders in the watershed and take account of all their interests.
- A decentralization process based on the principles of equality and integration.

THEME IV – WATERSHED MANAGEMENT RESEARCH AND CAPACITY BUILDING

Community capacity building

- Training programmes with strategies, methodologies and tools that are consistent with watershed management and based on local conditions and watershed inhabitants' needs and priorities.
- Training programmes that recognize the diversity of cultures, climates, worldviews, tastes and sensations concerned, and that do not rely on standard designs but are developed to suit and make use of local knowledge and skills.
- Use of criteria and indicators for quantifying and qualifying training programmes' impacts and measuring trainees' progress.

Universities and watershed management

- A sub-network linked to REDLACH to facilitate the exchange of educational material, experiences, methodologies and research.
- Watershed management education for decision-makers that is holistic and integrates multidisciplinary knowledge, skills and experiences.
- Local government, community and university joint programmes and projects to further the institutional integration of watershed stakeholders.
- University support in developing watershed management extension and technical assistance activities and implementing practical projects with stakeholder participation.

Study and research on natural resources

- Research planning that ensures the funding and human resources necessary to achieve long-term sustainable results.
- Research based on local communities' participation and priorities.
- Evaluation of natural resources to identify the best technological and management alternatives.

Capacity building and research on socio-economic issues

- Watershed programmes and projects that include socio-economic studies of stakeholder organizations, cultural beliefs, management types and interrelations, which aim to increase community organizations', stakeholders' and professionals' participation in natural resources management.
- Research programmes that evaluate natural resources and quantify social and environmental watershed issues and their geographic distribution.
- Studies to identify and assess such issues as land tenure systems, the use of marginal lands and illegal occupation by migrant communities.

Information management

- Use of integrated territorial, socio-economic and environmental information tools, such as GIS and remote sensing, in watershed management decision-making processes.
- Decentralized information programmes that recognize how sustainable development in poor rural communities is limited by a lack of information.
- Interrelated systems based on regional networks with incentives for technology transfer between local communities and rural education institutions.
- Technologies for managing micro-watersheds through consensus and participation; interaction and Internet access provide communities with significant opportunities for sustainable development.

THEME V – MANAGEMENT INSTRUMENTS FOR WATERSHED MANAGEMENT IN MOUNTAIN AREAS

Application of models

- Implementation of experimental watershed models based on watershed realities and interactions with local actors.
- Public and private institution support to information gathering and dissemination, including the design and application of models that are based on the institutions' own positive experiences.
- Cost-effective models that deliver results quickly and are practical, useful in situations that are difficult to forecast and effective in the planning and management of watershed natural resources.

Disaster and risk prevention

- A programme focusing on disaster prevention rather than reaction, which can be used to integrate risk assessment into the planning and implementation of watershed development programmes.
- Use of risk analysis research to generate and standardize sufficient basic information for decision-making.
- Promotion of experience sharing and use of the media to disseminate information.

Water management

- Provision of environmental education at all levels, and use of successful experiences to prioritize public and private investments in water quality.
- Use of appropriate technologies, including standard indicators and methods to ensure sewage water treatment.
- Design and implementation of master plans for national programmes on water quality.
- An information network on water quality and quantity in watersheds, which collects basic data on a permanent or cyclical basis, disseminates reliable data and is accessible to the population.

Sediment management

- Decision-makers' recognition of watersheds as geographical units for erosion control policies.
- Erosion control measures that include production and socio-economic parameters for evaluating erosion control.
- Incorporation of specific erosion control regulations and secondary regulations for water quality and soil loss in Latin American countries, with the participation of watershed stakeholders.
- Creation of monitoring networks that develop models at different scales and for different ecosystems to facilitate decision-making on sediment and erosion control.
- Sharing of experiences of erosion control in Latin America.

Integrated watershed management

- Watershed development plans that are generated locally and presented to higher levels of government to obtain their support.
- Watershed management priorities that include participatory assessment of watersheds and participatory strategic planning.
- Recognition that successful integrated watershed management depends on having an economic system to fund the actions to be taken.



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