

Twinning European and Latin-American river basins for research enabling sustainable water resources management

TWINLATIN

Brief description

The Latin American and Caribbean region is highly heterogeneous in terms of climate zones, hydro-ecology, socio-political systems etc. Numerous problems in relation to water quality and water availability arise. Flooding occurs frequently and erosion and pollution pressures have also become major problems. Management strategies, legal framework and stakeholder involvement needs to be improved. Activities and research tasks will be conducted within several fields of IWRM; hydrology, modelling of pollution flow, impact assessment, socio-economic impacts, climate change effects, scenario analysis and action efficiency.

The river basins selected are: Baker (Chile-Argentina), Catamayo-Chira (Peru-Ecuador), Cauca (Colombia), Lago de Nicaragua (Nicaragua), and Quarai/Cuareim (Uruguay-Brazil). The European river basins are Thames (UK) and Norrström (Sweden). The project addresses the goals of the EU WI "Water for Life", and builds on the methods and guidelines developed for the EU WFD. Interfaces with international organisations have been established.

The proposal is designed to enable and facilitate twinning in all fields of activity in order to fill gaps in knowledge. The strong component of public participation and stakeholder involvement will ensure that each component has local ownership. The river basins selected represent a wide variety of conditions, addressing also transboundary water problems. Thus, the applicability of the WFD approach will vary for the third country basins, and methodology applied will be a modification of the WFD process.

The final step will be development of tools for the implementation and identification of priority actions analysed in terms of physical/chemical efficiency as well as socio-economic effects. Priority actions are an essential part of an RBMP, and will be a crucial input and an encouragement to the Latin American end-users of TWINLATIN to develop full RBMP's following the finalisation of the project.

Strategic objectives:

1. To fill gaps in knowledge and methods in order to enable implementation of a harmonised IWRM approach in Latin American river basins, addressing the European Water Initiative and using the European Water Framework Directive as a guiding reference approach
2. To enable and perform assessment of climate change effects on the hydrological regime, water availability and water quality of the seven river basins. Additionally, to identify and analyse actions addressing the EU WI,

specifically improvement of water quality and availability as well as sanitation conditions for poor communities as a means to reduce poverty.

3. To enable proposition of actions that have been thoroughly analysed from all perspectives; surface water availability, surface water quality, groundwater availability and quality, sustainability criteria, domestic, agricultural, industrial and hydropower stakeholder interests.

List of Participants

Partic. Role*	Parti c. no.	Participant name	Participan t short name	Country
CO	1	IVL Swedish Environmental Research Institute	IVL	Sweden
CR	2	Centre for Ecology and Hydrology, Wallingford	CEH-W	UK
CR	3	Department of Geology-Geography, K.U. Leuven	KULeuven	Belgium
CR	4	Center for Environmental Sciences, University of Concepción	EULA	Chile
CR	5	Instituto de Pesquisas Hidraulicas, University Rio Grande do Sul	IPH	Brasil
CR	6	Dirección Nacional de Hidrología	DNH	Uruguay
CR	7	Centro de Investigación y Estudios en Medio Ambiente, University Nacional de Ingeniería	CIEMA	Nicaragua
CR	8	Management Unit for the Bi-national Catamayo-Chira river basin	UNIGECC	Perú-Ecuador
CR	9	Corporación Autónoma Regional del Valle del Cauca	CVC	Colombia

*CO = Coordinator

CR = Contractor