

Mirandela Statement

At the International UNESCO-IHP-HELP Douro River Basin Symposium “River Basin Level Responses to Water Scarcity and Drought under Uncertain Climate Futures” Mirandela, Portugal, 27/28 May 2010, we the stakeholders from different disciplines and countries have concluded that:

- Water scarcity and global changes are leading to water shortages, often combined with pollution, and wasteful inefficient use of water resources, which are affecting a growing number of regions of the world.
- Population, one of the most important drivers of water scarcity and climate change, is further intensifying the hydrologic cycle generating more droughts and hence aggravating water scarcity.
- Both phenomena of water scarcity and drought are growing and putting new stresses on the functions and uses of water resources systems such as: irrigation, drinking water, hydropower, human and ecosystem health.
- Uncertainty is a rapidly growing trend in knowledge and decision making as well as in the natural variability of physical phenomenon both spatially and temporally. This is leading to socio-political problems due to ill-informed and uncertain choices and lack of adaptability within policies and management practices;
- Data availability at the river basin level is not keeping pace with increasing complexity and is resulting in a lack of confidence on water decisions.
- More risks are being taken in water management and water governance in an uncertain climate and there are downstream/upstream conflicts within river basins.
- Issues such as lack of public participation, non-transparency and denial of social accountability are causing social unrest and prolonged conflicts among nations.
- There is paradigm lock between science community and decision makers in promoting Integrated Water Resources Management and water efficiency due to a lack of clear understanding of needs of stakeholders and slow rate of transfer of knowledge from science to policy.

We are of the view that in order to face the above challenges and maximise the advantages from different stakeholders and disciplines unified by UNESCO Hydrology for the Environment, Life and Policy (HELP) initiative, the UN organisations, governments, international donors, regional and local authorities should:

- Invest in knowledge platforms and communication tools to help address pressing water scarcity and drought issues and associated risks as a matter of priority in the local context of socio-economic and environmental sustainability.
- Enable sharing of transboundary databases and models to all stakeholders in easily understandable formats.
- Establish process for inclusion of stakeholders from all concerned nations in transboundary river basins to support collaboration, sharing of experiences and complementarity of plans and management.
- Establish universal guidelines and principles for building, using and interpreting models considering changing water cycle, environmental and socio-economic conditions and effectively link modelling and policy communities.
- Develop HELP case studies to promote good governance and adaptive risk management leading to system efficiency at the river basin level.
- Publish a global catalogue to share good practices, errors and mistakes in water management under uncertainty and risk.
- Promote a global node of excellence in water knowledge in “Risk Management under Uncertain Climate Futures” by bringing together the strengths of the universities and other partners through UNESCO-HELP programme in Portugal.