



# VIENNA DECLARATION

## ON THE STATUS AND FUTURE OF THE WORLD'S LARGE RIVERS

Vienna, 13<sup>th</sup> of April, 2011

### PREAMBLE

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Rivers provide mankind with key benefits, such as water supply, food, hydropower, navigation, irrigation, ecosystem services and recreation. They are fundamental to life and frequently possess major cultural significance. However, they are currently threatened by unsustainable "overuse", increasing human pressure on their catchments and problems of increased floods and droughts driven by climate change, leading to changes in morphology, increased pollution, degradation of aquatic habitats, extinction of fish species etc. All these changes impact negatively on the many benefits of rivers to mankind and their continuing contribution to human needs.

To provide a scientific forum to discuss these benefits and threats, the first International Conference on the Status and Future of the World's Large Rivers (WLRs) was held in Vienna, Austria, from the 11<sup>th</sup> to the 14<sup>th</sup> of April 2011, supported by UNESCO, IAHR, IAHS, WASER and IAG. Over 450 conference participants, coming from 73 nations and representing all continents, large rivers and relevant thematic fields, contributed to the success of the event.

The following declaration was debated and adopted by the participants during the conference.

### DECLARATION

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**The participants of the *International Conference on the Status and Future of the World's Large Rivers* declare the following:**

#### Current Challenges

- The pressures and impacts on the WLRs, including their basins and tributaries, have increased greatly in recent years. As a consequence of their exploitation to meet human needs and the impact of global change, WLRs are severely endangered, and there is an urgent need for action.
- Large rivers are particularly exposed to the impacts of multiple use, often with conflicting aims, leading, for example, to disruption of the continuum of water and sediment transfer from source to mouth.
- At the global scale, there is currently no holistic assessment of the present status of WLRs, the conflicting demands on such rivers, their likely future response to climate change and other anthropogenic impacts and the potential for restoration.
- There is no existing international regulatory mechanism for protecting the few remaining near natural WLRs.

#### Future Needs

- Analysis of the current status, conflicting demands and the future development of WLRs, including the impact of medium and long-term climate change.
- Formation of a global forum to facilitate wide-ranging informed discussion of key issues related to research on, and management of, large rivers.
- Promoting the preservation of the remaining near natural WLRs ("red list") and the sustainable management or rehabilitation of impacted WLRs, including knowledge transfer to decision makers and the population.



## Integrated Management of the World's Large Rivers and their basins

- Maintain or restore/rehabilitate (in a dynamic, spatial and temporal context) WLR basic functions, including biodiversity and ecosystem services, recognising the individuality of rivers.
- Avoid single-aim infrastructure development projects and strategies.
- Aim for win-win solutions combining ecological functionality (based on EIA) and economic use.
- Implement IWRM in a long-term context, taking account of the potential impact of climate change on WLRs.
- Integrate use, protection and restoration of WLRs (including upstream-downstream interactions).
- Sustain or improve river type-specific hydrological and hydraulic conditions.
- Preserve or restore the continuum of biota and sediment and sustain or improve sediment transport and fluvial morphodynamics, to achieve (close to) natural conditions.
- Establish and fulfil water quality objectives, recognising the individuality and specific conditions of each river.
- Collect and freely exchange data for transboundary rivers, based on common standards and accuracy.
- Assess future trends of river hydro-morpho-ecodynamics; develop and test mitigation strategies.

### Action plan

#### Creation of a global overview of the status and future of WLRs

Based on the contributions to the conference, a UNESCO-led and internationally-funded (e.g. World Bank) medium-term project, undertaken in collaboration with UNEP, UNDP, FAO, WHO, ADB, etc., should assemble and analyse existing data (free access) and knowledge on the status and future of WLRs, including evaluation of potential future infrastructure projects, their impact on WLRs and possible mitigation strategies.

#### Closing of knowledge gaps, knowledge transfer and a Global Observatory of WLRs

In a concerted action, the research required to close knowledge gaps relating to WLRs should be identified and promoted. Particular attention should be given to knowledge transfer to next generation scientists, stakeholders, decision makers, children (education) and the general public. A global observatory should be formed to document changes (including climate change effects) occurring in WLRs.

#### Collaborative International Action Plan to focus on WLR research and management

In a joint memorandum, international scientific bodies and associations (e.g. UNESCO, IAHR, IAHS, WASER, IAG, etc.) should formulate an action plan on WLR research and management as well as sponsor future WLR conferences.

#### World River Forum, World Rivers Day and WLR Commission Meetings

A World River Forum should be established to bring together scientists, stakeholders and decision makers, in order to promote and improve integrated management of WLRs. The UN World Rivers Day should be scientifically supported. The WLR Commissions (responsible for sustainable river management) should meet regularly to exchange experiences, define common standards on integrated management and debate future needs.

#### Future Conferences on the World's Large Rivers

A Conference on the Status and Future of WLRs should be held every three years, with the aim of expanding and disseminating scientific knowledge relating to WLRs.

## MOVING AHEAD

In order to improve the situation and reduce the threats to the World's Large Rivers the proposed actions should be implemented in the years 2011 to 2014, so that during the next WLR conference, to be held in Manaus, Amazonas, Brazil in 2014, ongoing activities can be evaluated and further initiatives planned.

**The Vienna Declaration recommends** that a collaborative and multidisciplinary international initiative is required to create the basis for a holistic, global scientific assessment of the status of the World's Large Rivers and to promote urgently needed improved, integrated and sustainable management of WLRs and their surrounding landscapes and basins.