

VOICES FOR RIVERS

Messages from the 25th International Riversymposium

27th November - 1st December 2022, Vienna & Online

STRENGTHENING THE UNDERSTANDING OF RIVERS

At the 25th International Riversymposium in Vienna in November 2022, the over 500 in person and online participants celebrated the important efforts that people throughout the world are undertaking to ensure the protection, restoration and resilience of rivers. The overall message of the Symposium was that an even stronger commitment to restoration and protections of rivers needs to be given.

In March of 2023, for the first time in 50 Years, the world will have a UN Event that focuses on water. This event provides an important opportunity to expand the level of effort directed to improving the condition of the world's rivers.

Rivers are more than just a conduit for water. They are living ecosystems which need our support and greater care, both because of the important services they provide to us as humans, but also because these ecosystems are globally among the most damaged and threatened.

The triple challenges and threats from climate change, biodiversity loss and degradation and lack of availability or overabundance of water are all interlinked through rivers. **River systems are the lifeblood of the landscapes they connect.** They bring to human populations enormous benefits, and support a large portion of the world's biodiversity. These important freshwater ecosystems need our attention and actions to both protect them and, where necessary, restore them. Living healthy rivers with diverse and flourishing wildlife, broad riparian buffers, and natural floodplains and deltas are needed more than ever to absorb the climate shocks that are already currently happening.

The underlying message of IRS 2022 was that throughout the world, our water problems require intensified actions to protect and restore rivers.



STATUS OF RIVERS WORLDWIDE

Throughout the world, there is an overall degradation and fragmentation of river systems and loss of the naturalness and ecological functions of rivers. The world's rivers are damaged through a combination of pollution, straightening, damming, and other hydromorphological alterations, as well as invasion of exotic species.

Pollution, through nutrients and chemicals, has rendered many of the world's most important rivers incapable of providing safe drinking water or posing risks to human health and damage to biodiversity.

The over 57,000 large dams worldwide, combined with at least 16 million small dams and impoundments with reservoir surface areas larger than 100 square meters, have severely obstructed fish migration, and changed many rivers' natural discharge regime and trap a large part of the sediment flux upstream. The impacts of these interventions are being felt from the river down to the deltas and coastal zones.

Rivers are also at the forefront of climate change impacts. Changing precipitation patterns and melting glaciers from climate change both increase peak river discharge and reduce extreme low water flows. This increases flood risk and salinisation in the deltas, reduces freshwater supply, and can hamper navigation conditions.

This combination of factors is severely damaging rivers and leaving the ecosystems and human populations dependent upon them vulnerable. Rivers such as the Po and Mississippi, have recently experienced severe drought threatening food production, navigation, and causing negative impact on fisheries. The recent example from Pakistan of excessive flooding is now not the exception but the norm.



The consequence of these changes to rivers, including climate-driven impacts, has been an alarming loss of freshwater biodiversity and a reduction in the ability of these systems to provide important services to humans and to function as the natural lifeblood of the landscape.

While occupying only 0.8% of the Earth's surface, rivers and deltas are immensely important to humanity and sustainability. They provide water, fish, fertile soils, transportation routes and energy for humankind, and host around 40% of all described fish species.

Over 1/3 of the world's freshwater biodiversity is threatened from extinction. Over 50% of all fish species are found in rivers. The recent [Living Planet report](#) has noted that monitored freshwater species populations have suffered an 83% fall since 1970.

This loss of freshwater biodiversity and natural river habitats **impedes** our efforts to achieve sustainable development. In fact, **there can be not sustainable development without healthy rivers.**

At the 25th International Riversymposium, (best) practices of protecting and restoring rivers were presented and the success in these endeavours celebrated. Numerous positive examples of non-governmental groups (NGOs), local and national governments, business interests and communities acting together to better manage, revitalise, protect and restore rivers, exist. **Celebrating and strengthening these existing efforts are needed to ensure that our river systems are returned to health.**

Important lessons from these efforts have been presented and above all, the need for multiplication of efforts and global actions (in support of local actions) was stressed. The following list presents some of the important actions which need strengthening and expanding if rivers are able to play their essential role in the landscape and for human populations - in transporting, cleaning and storing water throughout the world and in providing habitat to a diverse array of unique biodiversity.

COMMITMENTS NEEDED TO IMPROVE THE PROTECTION AND RESTORATION OF RIVERS

Governance

<p>Transboundary Management Arrangements Expanded and Supported</p>	<p>Many of the world's rivers are shared between jurisdictions and positive examples of cross-border cooperation in managing these rivers exist (Danube, Mekong, Orange-Senqu, etc). The legal conventions establishing transboundary commissions are often the basis for cooperation. At a global level, these instruments need to be maintained and strengthened and resources be made available for their implementation. Such transboundary plans should be included in relevant national planning exercises as well, ensuring coherence with other national and regional policies.</p>
<p>Achieving Interdisciplinary Action in Support of Rivers</p>	<p>Climate change, biodiversity loss, and water are all connected. National plans and actions as well as the conventions and international agreements like CBD, UNFCCC for providing the response to each of these issues need to be linked and mainstreamed for complementary objectives and for sharing resources. Regional river basin planning (often of a transboundary nature) needs to be the basis for addressing these three issues or, at least mitigation measures, simultaneously.</p>
<p>Actions in Climate and Biodiversity Conventions (COPs) in Support of Rivers</p>	<p>The International Conventions (Climate, Biodiversity, Wetlands) all need to explicitly identify and address the direct link between climate change, biodiversity loss, and freshwater ecosystems like rivers and wetlands, and thus coherently implement decisions to reach their objectives. Climate resilience needs to be embedded in integrated river basin management plans and/or integrated water resources management plans.</p>
<p>Mechanisms to Achieve Intersectoral Dialogue</p>	<p>The damage to rivers worldwide is a result of multiple pressures and threats. Mechanisms to establish dialogue and create optimal scenarios between the key actors that influence rivers (hydropower, navigation, water supply and wastewater treatment, tourism and recreation, flood protection, and agriculture) need to be established. Good examples for this dialogue and cooperation exist in river basins throughout the world (the Murray Darling, the Ganges in India, the Danube and Rhine in Europe, and the St Lawrence between Canada and the US). These examples need continued support and to serve as positive examples for other river basins.</p>
<p>Developing Cooperative Actions for River Cities and their Connected Landscapes</p>	<p>The recently convened IRS 2022 showcased a number of important initiatives where cities of varying size and complexity have been developing wholistic strategies to manage the rivers that flow through them and to develop actions and initiatives to improve urban rivers and their connection to the basin and surrounding landscapes. An urban river needs to be managed and governed by development plans that include the hydrological basin of which it is a part of. Cities are showing they can be forward thinking and develop actions for flood protection, water supply, recreation and economic development that acknowledge and work to support this connection through cooperative strategies and planning with municipalities and authorities further upstream (Brisbane, San Antonio, Manila, Vienna). These regional planning initiatives provide a basis to maintain and restore health to rivers and have the potential to reduce risk to people living in harm's way.</p>
<p>Corporations Acting to Protect and Restore Rivers</p>	<p>Corporate actions can often affect the natural values and assets of rivers (overuse, pollution) and lead to an undermining of the health of a river. Fortunately, many corporate actors have begun to develop and utilise efforts to ensure that new initiatives and actions are in keeping with maintaining or improving the quality of rivers. These have included cooperative dialogue with NGOs and local governments, support for clean-up and pollution elimination, water use reduction, and overall internal awareness in the company of its impact on rivers and water. Voluntary accountability schemes such as that of the Water Stewardship Alliance have provided an important framework for assessing the impact of companies on water and rivers and promoting actions to limit or reduce negative impacts and strengthen support for rivers.</p>
<p>Cross-Generational, Inclusive and Equitable Decision Making</p>	<p>The water sector needs a culture change. To achieve the SDGs, there is a need to bring together the knowledge and lived experiences of all generations, cultures and diverse perspectives to find better solutions and deliver them rapidly and at-scale. No generation can make rivers resilient by working in isolation from the other generations. River commissions and other institutions making decisions affecting rivers need to ensure the input and involvement of diverse perspectives, cultures, generations, affiliations, and groups, thereby expanding and accelerating better solutions to bring our rivers from crisis to resilience. The role of indigenous knowledge and involvement in how we manage rivers is crucial.</p>

Monitoring and Information

<p>Ensuring a Basic Monitoring and Evaluation System for all Rivers</p>	<p>Every river needs a basic monitoring and evaluation system (including the impacts of climate change) that can be as simple, or as complex as needed, to assist decision making in managing rivers. The 2022 International Riversymposium highlighted a number of these examples (at local, national and international levels) which can serve as good practice examples. Within a river basin the monitoring and evaluation systems need be coordinated at the local, regional, national and international levels to ensure that the status of rivers continues to improve and achieve resilience.</p>
<p>Collaboration Between River Basins and Authorities on Monitoring and Info Systems</p>	<p>Global initiatives such as those under the Global Environment Facility - or other various international projects supported by multilateral donors that support collaboration between river basins on monitoring and evaluating rivers - can strengthen the existing initiatives underway at the local level and broaden the base of knowledge and understanding developed locally.</p>
<p>Resilient Rivers Diagnostic</p>	<p>Data and information about rivers need to have a focus on evaluating resilience and ensuring that the river is in a condition that can allow it to self sustain and provide the essential services which it offers. Regular interdisciplinary dialogue and forums for exchange at the river basin level allow this assessment to take place. This diagnostic needs to ensure that human activities are not endangered or threatened by changes in climate and other factors for which resilience is necessary.</p>
<p>Model Research Projects Supported</p>	<p>Climate change and river basin development is one of a number of topics for which global efforts and shared learning needs to take place. Model research projects such as that of the Special Policy Study (China and World Wide Partners) need to be supported and resources provided for this shared learning.</p>
<p>Tracking Health of Freshwater Biodiversity</p>	<p>The dramatic loss of freshwater biodiversity is alarming and global action (built off local actions to monitor and evaluate this) are in need of support. World Wide Fund for Nature (WWF) Living Planet Index is one such scheme that can be used. Important initiatives at the local level of citizen monitoring (such as that developed by Rotary International and UNEP) should be encouraged and supported.</p>



Protection and Restoration of Freshwater Ecosystems

<p>Biodiversity Goals for Freshwater Species and Habitats</p>	<p>Worldwide goals for the restoration of rivers are needed and such a goal for inland waters has been included in the recent CBD. Restoration should be completed or underway on at least 30% of degraded terrestrial, inland waters, and coastal and marine ecosystems by 2030. A global goal for nature - in parallel to the UN Climate Convention's "net zero" emissions goal – would commit governments to be nature-positive by 2030 by taking urgent action to halt nature loss now. Without such targets the continual decline of freshwater wetlands and rivers will continue. A global target for river restoration of 300,000 km would be a modest start.</p>
<p>Target for Free Flow of Rivers</p>	<p>One of the most important factors affecting the health of freshwater species are the fragmentation of rivers by dams and weirs that disturb or disrupt a river's natural flow regime. This is the case on some of the biggest rivers in the world as well as on small tributaries and creeks. These obstructions result in species being unable to move between habitats necessary for their survival, such as places to breed, feed, and find refuge from cold or hot conditions or when water levels are too high or low. A global commitment to remove or make passable dams and other obstacles in rivers is required, and a global target for protecting and restoring "free flowing" rivers should be established. This target should be realised through the following national commitments: a) Permanently protect all remaining free-flowing rivers; b) Remove obsolete river barriers and prioritise high impacting barriers to restore river connectivity.</p>
<p>Nominating Flagship Species and Goals for their Recovery</p>	<p>On the Rhine and Columbia rivers, targets for restoring salmon have led to major improvements in river quality and connectivity, longitudinally and laterally. On the Danube, the Sturgeon has become a symbol of the actions needed to create connectivity along the over 2,500 km of the river. On the St. Lawrence River the Beluga whales were the miners canary to demonstrate the need for further reduction of pesticides and other damaging chemicals. River Basins throughout the world – locally, nationally, and internationally, can use these flagships to encourage and support restoration and protection efforts in rivers. Expansion of such initiatives among basin authorities worldwide would make a powerful contribution to strengthening the understanding and commitment to the protection and restoration of rivers.</p>
<p>Local Actions to Support Restoration and Protection and Commitments to Restore and Protect Rivers</p>	<p>River clean-ups in cities such as Manila and Chicago have led to a revitalisation of rivers and an awareness of the value of rivers. Local government authorities should initiate or support such clean-up and restoration efforts in cooperation with local NGOs and businesses. Future development schemes (including major sporting events, such as the Olympics) also need to include commitments to ensure Protection and Restoration of Rivers. The positive initiative in this regard of Brisbane and Queensland in the leadup to the 2032 Olympics needs support.</p>
<p>UN Decade on Ecosystem Restoration 2022 – 2030</p>	<p>The UN Decade on Ecosystem Restoration aims to prevent, halt and reverse the degradation of ecosystems, including freshwater ecosystems, on every continent and in every ocean. It can help to end poverty, combat climate change and prevent mass extinction. It will only succeed if everyone plays a part. It is imperative also that the various policy streams, process (CBD, Ramsar, CMS, UNFCCC, and SGS) are brought together through a coherent implementation mechanism.</p>



Innovative Financing

<p>Supporting Funding Mechanisms for River Restoration</p>	<p>There is evidence that investing in restoration can result in positive financial flows. A global financial support mechanism to enable restoration activities is needed. It could also support the effective implementation of activities underpinning the UN Decade of Restoration. Similarly, a national, regional or local (municipalities) level of funding in support of such efforts is required. Countries and regional governments should establish the needed financial mechanisms. When contracting Parties to the CBD will revise their NBSAPs, they would need to prepare National Biodiversity Finance Plans, in which support for river restoration activities will need to be incorporated. The EU Life Program is such an instrument which can be used for river restoration. Yet, in order to utilise the full potential of river restoration, it needs to be mainstreamed (and paid for) by various sectors. The Global Environment Facility and its International Waters focal area may with involvement of the GEF Impelementing Agencies (e.g. WB, UNDP, UNEP and others) are a valuable vehicle that can be further utilised to provide funding to transboundary cooperation, that help sustainable water management and restoration across borders.</p>
<p>Organize Private Finance into River Restoration</p>	<p>Without private finance the efforts to restore rivers will likely not be successful. A variety of organisations and institutions have demonstrated that there are benefits and opportunities to ensure the organisation of private finance in River Restoration. These efforts need to be expanded.</p>
<p>Commitment to Nature-Based Solutions</p>	<p>The challenges of restoring and creating resilience of rivers requires a commitment to nature-based solutions (protecting and restoring upstream floodplains and riparian habitat for flood protection and water supply security). The Nature Conservancy (TNC) and other organizations have developed a number of tools to help planners and managers understand and value the potential of nature-based solutions that strengthen the resilience of rivers. Additional tools also exist that help identify and define the environmental flow regime of a river necessary for supporting it's native biodiversity. Application of such tools and approaches are essential to restoring the health of rivers and ensuring resilience.</p>
<p>Interaction between Climate, Biodiversity and Water Investments</p>	<p>Investments in climate adaptation can often have positive benefits for rivers and overall synergy for the use of the resources under these. Conventions needs to be promoted at the international level and in local or national actions.</p>



Celebrating and Valuing Success

Celebrating Rivers - World Rivers Day, World Fish Migration Day, International Riversymposium, International River Prize and other River Events and Conferences need Support

The recently held IRS 2022, where persons involved in rivers came together in-person for the first time since the beginning of the pandemic, demonstrated the incredible energy and enthusiasm that exists for celebrating and sharing the success that has been achieved in protecting and restoring the world's rivers. This positive energy has been realised at the same time as better understanding the threats that exist to rivers. These events and activities need to continue to receive support in order for the positive actions of people throughout the world in the interests of rivers to be acknowledged and for momentum in the global actions increased.

Providing Outlets and Motivation for Action

Individual actions on a small creek, or tributary (such as waste clean-up, monitoring of biodiversity or water quality) help bring awareness and understanding of rivers and their living and dynamic nature to people (including children everywhere). Programs and activities which encourage this direct contact and involvement with rivers are needed to ensure that people everywhere understand and feel in a spiritual way the river to which they are connected. Numerous local and international organisations such as Friends of Organisations, GWP, WWF, TNC, and Rotary are engaging in supporting these efforts and continued support for these is required.



KEY MESSAGE

The 25th International Riversymposium demonstrated that throughout the world there are **important positive Voices for Rivers** that are not only speaking up on behalf of rivers but acting in their interests. This community of people and organisations are committed to the restoration and protection of the world's rivers and want to see an expansion and broadening of that effort. The 2023 UN Water Conference in March provides an important opportunity to ensure that rivers are acknowledged as more than a conduit for water. They are the lifeblood of the landscape and the restoration and protection of rivers will help ensure clean, safe water for all. Healthy and resilient river ecosystems that will help buffer the consequences of climate change and ensure a more prosperous and safe human existence.

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