In an era defined by climatic, social, and environmental shifts, the conservation and restoration of our waterways have become urgent global priorities. Traditional engineering and intensive land use have often proven insufficient against the challenges of climate change, highlighting the need for a fundamental transformation in river management. The International Congress “Life to Rivers”, dedicated to identifying innovative solutions for river conservation and restoration within a context of rapid environmental and social change. By moving beyond reactive measures, the Congress explores a holistic vision, providing a premier platform to explore recent advances in river restoration, the practical implementation of Nature-based Solutions (NbS), and the formulation of contemporary policies that will shape the future development.

“*Life to Rivers*” is built upon the pillars of Co-creative River Stewardship and transdisciplinary collaboration between scientists, practitioners, landowners, policymakers, and civil society that work together to design resilient aquatic environments. This approach that shifts responsibility from a single entity to a shared, inclusive governance model, that jointly developed solutions that respect the cultural and ecological characteristics of each contest and situation.

In particular, the Congress is designed to bridge the gap between theory and practice through several key objectives:

- Collaborative Action: Promoting transdisciplinary engagement among managers, researchers, and the wider public to address contemporary water management challenges.
- Fostering Dialogue: Strengthening cooperation and networking across diverse scientific and professional disciplines concerned with river ecosystems.
- Knowledge Transfer: Establishing effective communication between the scientific community, practitioners, and implementers to accelerate the integration of research into legislation and field practice.
- Innovative Concepts: Exploring the advancement of socio-hydrological space, river restoration, and co-creative management models.

To provide a structured framework for the discussion and to translate theoretical expertise into practical scalable solutions, these overarching goals will be explored in depth through four dedicated topics, each addressing the current frontiers of river management and the components of the modern river restoration landscape:

**River Restoration**

The restoration of river ecosystems is undergoing a significant shift toward functional river restoration, an approach that moves beyond simple morphological reconstruction to focus on enabling natural processes. Instead of artificially shaping riverbanks or structures, this method aims to create the conditions necessary for a river to dynamically reshape itself over time. Research indicates that the value of ecosystem services increases proportionally with a river’s natural dynamics; therefore, the more a project supports spontaneous processes, the greater its environmental and socioeconomic benefits. Often referred to in literature as “Stage Zero” or *process-based restoration*, this model seeks to achieve full connectivity between the river, its floodplain, and groundwater. By adopting co-creative stewardship strategies, cities and regions can move away from financially demanding artificial maintenance and instead provide rivers with the essential space needed to regain their hydromorphological complexity and ecological resilience.

**Promoting Nature-based Solutions**

Nature-based Solutions (NbS) represent a strategic framework to protect and restore ecosystems while effectively addressing societal challenges. Following the IUCN Global Standard published in 2020, river restoration is recognized as an NbS only when it provides a net gain in biodiversity and tackles critical issues such as flood risks, droughts, and public health. To ensure proper implementation, projects must be evaluated against eight core criteria—ranging from economic viability to inclusive governance—and 28 specific indicators. A key focus is placed on Criterion 1 (addressing societal challenges) and Criterion 3 (ecosystem integrity). Through the use of dedicated self-assessment tools and workshops led by certified assessors, stakeholders can verify compliance and identify opportunities for improvement. This approach ensures that river interventions are not just ecological projects, but sustainable, adaptive, and mainstreamed solutions that equitably balance trade-offs for the benefit of both people and nature.

**Science and Expertise in Policy Making**

The development of sustainable environmental policies relies on the integration of scientific insights, interdisciplinary expertise, and shared societal values. This session explores the critical relationship between experts and decision-makers, examining how reliable data and independent assessments (such as EIA and SEA) can prevent the dominance of particular interests over the public good. In modern democratic processes, ensuring that scientific findings remain independent from political pressure is essential for the effective implementation of water management and nature conservation legislation. A key focus is placed on fostering public and expert participation to build trust and social consensus, distinguishing transparently between private profit-driven interests and collective benefits. By showcasing good practices and evaluating the quality of current regulatory frameworks, the discussion aims to address decision-makers’ needs for high-quality evidence while ensuring that experts remain accountable for their interventions in the field, ultimately fostering a more resilient and transparent governance of aquatic environments.

**Integration of River Restoration Principles in Maintenance Works**

While river restoration is a recognized conservation approach, many ecosystems are still being lost due to traditional water management practices. This session explores the opportunity to transform legally prescribed maintenance of river corridors into a vehicle for ecological improvement by applying the “Build Back Better” (BBB) principle. In countries like Slovenia, where past engineering focused strictly on flow capacity and channel narrowing, integrating Nature-based Solutions (NBS) into regular maintenance offers a way to gradually restore ecosystem functions even where full natural recovery is restricted by urban or agricultural land use. The discussion will highlight successful organizational models and case studies, with a specific focus on post-flood rehabilitation, such as the large-scale reconstruction efforts following the 2023 extreme floods. By moving beyond simple hydraulic efficiency, these integrated management schemes aim to establish river restoration as a standard practice, ensuring that maintenance works not only provide flood protection but also actively contribute to the long-term health and resilience of aquatic habitats.

Participants will receive the conference proceedings and have the opportunity to hear distinguished speakers present the latest findings and practical experiences. The event will also provide a platform for the exchange of knowledge and best practices, learning through interactive workshops.

Participation in the congress is free of charge.