



Zhengzhou 2024 Ecosummit declaration: Building eco-civilization for a sustainable and desirable future^{*}

We, the participants of the 7th International EcoSummit Congress convened in Zhengzhou, China, in December 2024, have come together to address the urgent ecological challenges of our era and to promote a vision of harmony between human wellbeing - both individual and societal and the health of nature. Inspired by the principles of eco-civilization, this declaration affirms our commitment to accelerating ecological restoration, developing sustainable stewardship institutions (including common asset trusts), and advancing planetary health and well-being for present and future generations.

1. The Yellow River: A Symbol of ecological challenges and Opportunities

The Yellow River, often revered as the “Mother River” of China, has nurtured one of the world’s oldest civilizations. Yet, this river basin faces profound challenges: severe water scarcity, ecological fragility, and the constant threat of floods. At the same time, the region grapples with insufficient high-quality development and persistent gaps in improving people’s livelihoods. Recognizing its vital role, China elevated the ecological protection and high-quality development of the Yellow River Basin to a major national strategy in 2019.

Home to about 160 million people, the Yellow River Basin is not only a lifeline for communities but also a critical testbed for advancing the practice of sustainable ecosystems and communities. When the goal is to transform the Yellow River into a “river of happiness” that benefits its people, the path forward demands bold, science-driven solutions. Ensuring ecological security, restoring environmental resilience, and fostering a balance between human development and nature are all at the forefront of this mission.

This vision aligns with the broader goals set forth by President Xi Jinping, emphasizing the transformation of the Yellow River Basin into a model of ecological conservation, high-quality development, and harmonious coexistence between humans and nature, but the significance of the Yellow River extends beyond China—its health is intertwined with global water sustainability. Tackling these challenges requires cutting-edge science, international collaboration, and a commitment to solutions that can serve as a model for river management worldwide.

2. Global water challenges and the need for stepwise ecological restoration

Water is fundamental to both human survival and the health of ecosystems. As a global community, we are confronted with the dual

pressures of water scarcity and ecosystem degradation. The degradation of natural ecosystems contributes significantly to climate destabilization, and without a concerted effort to protect and restore these ecosystems, we risk further exacerbating these global crises. Adaptive stepwise ecological restoration has emerged as a crucial strategy to rehabilitate degraded ecosystems. By adopting gradual, adaptive, and regionally specific approaches, we can restore biodiversity, improve water quality, and enhance our capacity to resist and mitigate climate disruptions regionally and globally.

3. Global aspirations: Kunming-Montreal targets and beyond

The global community has set ambitious targets for biodiversity, including the protection of 30 % of the terrestrial and marine biospheres. While these targets represent important goals, they are not sufficient to preserve global biodiversity. Achieving biodiversity goals requires a broader approach, one that values local-scale solutions and strengthens the connections between habitats. The difficulties experienced at COP16 in Cali, particularly in progressing the Kunming-Montreal targets, demonstrate the challenges of achieving large-scale environmental objectives without grounding them in actionable, localized solutions.

4. The need for “Soft Path” water solutions

Water is both an economic good and a fundamental human right. To ensure sustainable water use and equitable distribution, we must adopt “soft path” water solutions. This includes protecting source water quality, matching the quality of water supply to the quality of need, and developing flexible, adaptive water institutions. Moreover, addressing water security is essential to achieving broader sustainability goals, particularly in water-scarce regions such as the Yellow River Basin.

5. Big Science for Earth Water Futures

The International Big Science Initiative: Earth Water Futures, featured at the 2024 World Science Forum, emphasizes the need for global cooperation to tackle water crises. Through cutting-edge research, shared data systems, and innovative technologies, Earth Water Futures aims to enhance global water security. This initiative closely aligns with the objectives of the Zhengzhou EcoSummit and highlights the importance of global collaboration in addressing the interconnected challenges of water management, climate change, and ecological restoration.

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6. Ecosummits and the need for progress

Ecosummits serve as an important platform for advancing global cooperation and action on ecological restoration and sustainability. They provide an opportunity to address global water challenges, develop solutions for ecosystem preservation, and establish frameworks for international collaboration. This global platform is vital for sharing innovative solutions, research, and technologies that will help drive the progress necessary for meeting both global and local ecological goals.

7. The importance of valuing ecosystems

To address these challenges, we must also develop a deeper understanding and valuation of natural capital and ecosystem services. Initiatives like the UN System of Environmental and Economic Accounts (SEEA), IPBES, and China's Gross Ecosystem Product (GEP) emphasize the importance of incorporating ecosystem values into policy and decision-making processes. The recognition of these values helps build a foundation for better stewardship and more sustainable economic systems.

8. The need to value investments in nature

Valuing ecosystems has made their importance more visible, but it is equally important to invest in nature—to “give back.” Embracing reciprocity in our relationship with nature, through implementing strategies based on transdisciplinary research and international cooperation, will help shape a sustainable future by changing social norms, behaviors, and practices. Valuing investments in nature, using approaches that align with international systems like the SEEA, IPBES and GEP, could help ensure that the investments lead to improvements in the wellbeing of both humans and the natural world.

9. Call to action

The participants of the Zhengzhou EcoSummit call upon governments, organizations, networks, and individuals to integrate eco-civilization principles into their policies and actions. By fostering innovation, enhancing collaboration, and promoting environmental education, we can build a more sustainable, equitable, and desirable future. This declaration serves as a call to action for global communities to join the many efforts already underway in addressing the interconnected challenges of climate change, biodiversity loss, and the degradation of natural and social capital.

10. Conclusion

The Zhengzhou EcoSummit reaffirms its commitment to creating a sustainable future for humanity and all the inhabitants of our finite planet. By embracing the principles of eco-civilization, focusing on practical solutions like stepwise ecological restoration, and fostering international collaboration, we aim to lead the way in building a resilient and thriving world for generations to come.

CRedit authorship contribution statement

Junguo Liu: Writing – review & editing, Writing – original draft,

Validation, Project administration, Investigation, Conceptualization. **Robert Costanza:** Writing – review & editing, Writing – original draft. **Ida Kubiszewski:** Writing – review & editing, Writing – original draft. **Bai-lian Larry Li:** Writing – review & editing, Writing – original draft. **Fahu Chen:** Writing – review & editing, Writing – original draft. **John W. Day:** Writing – review & editing, Writing – original draft. **Peter H. Gleick:** Writing – review & editing, Writing – original draft. **Anastassia Makarieva:** Writing – review & editing, Writing – original draft. **Jacqueline M. McGlade:** Writing – review & editing, Writing – original draft. **Stuart L. Pimm:** Writing – review & editing, Writing – original draft, Conceptualization. **Natalie Stoeckl:** Writing – review & editing, Writing – original draft. **Yongguan Zhu:** Writing – review & editing, Writing – original draft.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

No data was used for the research described in the article.

Junguo Liu^{a,*}, Robert Costanza^b, Ida Kubiszewski^b, Bai-lian Larry Li^c, Fahu Chen^d, John W. Day^e, Peter H. Gleick^f, Anastassia Makarieva^g, Jacqueline M. McGlade^b, Stuart L. Pimm^h, Natalie Stoecklⁱ, Yongguan Zhu^j

^a Yellow River Research Institute, North China University of Water Resources and Electric Power, Zhengzhou, China

^b Institute for Global Prosperity, University College London, London, United Kingdom

^c Ecological Complexity and Modeling Laboratory, Department of Botany and Plant Sciences, University of California, Riverside, the United States of America

^d State Key Laboratory of Tibetan Plateau Earth System, Environment and Resources, Institute of Tibetan Plateau Research, Chinese Academy of Sciences, Beijing, China

^e Department of Oceanography and Coastal Sciences, Louisiana State University, Baton Rouge, the United States of America

^f Pacific Institute, Oakland, CA, the United States of America

^g Theoretical Physics Division, Petersburg Nuclear Physics Institute, Gatchina, Russia

^h Nicholas School of the Environment, Duke University, Durham, the United States of America

ⁱ Tasmanian School of Business and Economics, University of Tasmania, Hobart, Tasmania, Australia

^j State Key Laboratory of Urban and Regional Ecology, Research Centre for Eco-Environmental Sciences, Chinese Academy of Sciences, Beijing 100085, China

* Corresponding author.

E-mail address: junguo.liu@gmail.com (J. Liu).