

Incorporating Ecosystem Services into Water Resource Management—Tools, Policies, and Promising Pathways

Call for Contributions for a Special Issue of the journal [*Environmental Management*](#)

Short title: Ecosystem Services in Water Management

Water is foundational to human well-being, yet the ecosystems that underpin human freshwater needs are disproportionately impacted by unsustainable human activity. Wetlands continue to disappear at a rate higher than any other ecosystems, and the forests and grasslands that provide important water regulatory functions are also under threat in many parts of the world. Common underlying drivers of this trend include the chronic undervaluing of water-related ecosystems and their services, the fragmented interests among stakeholders in freshwater basins, and the traditionally siloed approach to water resource management.

The ecosystem services (ES) paradigm—linking ecosystems to human benefits—offers an opportunity to address many of these challenges through a holistic socio-ecological approach, ensuring that water resource management maximizes the potential of healthy ecosystems. Ecosystem services engage natural resource management and planning, integrate social and cultural values of ecosystems and leverage indigenous and other knowledge systems. There is a diversity of techniques for quantification, mapping and assessment of ES that are applicable in the context of water resource management, including ecohydrological modelling, environmental planning, and natural capital accounting. Alternatively referred to as Nature-based solutions (NBS) or green/blue infrastructure, ES offer links to important global issues such as water security, climate change adaptation, and the Sustainable Development Goals; still, implementation of ES and NBS in the praxis is limited. The proposed Special Issue (SI) *“Incorporating Ecosystem Services into Water Resource Management—Tools, Policies, and Promising Pathways”* aims at highlighting the advances and challenges in the aforementioned topics, collecting contributions from real world case studies, best practice examples and practitioner experience.

Aims and topics of interest for the Special Issue

This special issue invites papers on recent multi- and interdisciplinary efforts to measure, plan for, incentivize, and implement projects aimed at enhancing water-related ES in basins around the world. Topics of interest include, but are not limited to:

- Nature-based solutions (NBS) for water security
- Modelling and mapping water-related ES
- Sustainable green and blue infrastructure for urban water systems
- Stakeholder engagement in ecosystem-based water resource management

- Measuring the impacts of NBS in watersheds
- Challenges in mainstreaming ES in water resource management
- Trade-offs and synergies between water related and other ES
- Ecosystem services and the Water-Food-Energy nexus
- Natural capital accounting for water

The submitted articles should also provide insights on the following questions:

- What types of ecosystem services analysis, decision-support tools and evidence are proving to be most useful to promote water security and sustainable water management?
- What factors appear to be contributing to the success (or failure) of ecosystem services and NBS approaches to be incorporated into water management and/or the water security agenda?
- What are some research priorities for enhancing the evidence base in order to mainstream ecosystem services and NBS in water policy and planning? What is missing and what should be done differently?
- What are the institutional constraints for implementing ecosystem services and NBS in the water security agenda?

Call for contributions and details for authors

Interested authors are asked to send a preliminary abstract (max. 300 words) before July 31, 2020 per email to the Special Issue editors Derek Vollmer (dvollmer@conservation.org) and Blal Adem Esmail (blal.ademesmail@unitn.it). The results from the abstract evaluation will be communicated until August 20, 2020.

For those encouraged to submit a manuscript, the submission deadline is September 30, 2020. Submissions will be sent for peer review and, if accepted, published on a rolling basis. We expect 10-15 articles to be published in the SI. It is anticipated that articles in the SI will begin to be published online in early 2021.

The submissions should be of high quality and following the Submission Guidelines provided by the journal editors: <https://www.springer.com/journal/267/submission-guidelines>

Provisional timeline:

- | | |
|--|--------------------|
| - Call for abstracts: | May 15, 2020 |
| - Submission of abstracts: | July 31, 2020 |
| - Review of abstracts: | August 20, 2020 |
| - Submission of papers: | September 30, 2020 |
| - First review of papers: | December 15, 2020 |
| - Submission of revised papers: | January 31, 2021 |
| - Final SI contributions at Publisher: | May, 2021 |

Special Issue Guest Editors and contacts

Dr. Derek Vollmer
Moore Center for Science
Conservation International
2011 Crystal Drive, Arlington, Virginia, USA 22202
Email: dvollmer@conservation.org

Dr.-Ing. Kremena Burkhard
Institute of Environmental Planning
Leibniz University Hannover
Herrenhäuser Str. 2, 30419, Hannover, Germany
Email: burkhard@umwelt.uni-hannover.de

Dr. Blal Adem Esmail
1st affiliation: Department of Civil, Environmental and Mechanical Engineering
University of Trento
Via Mesiano 77, 38123 Trento, Italy
Email: blal.ademesmail@unitn.it

2nd affiliation: Division of Urban and Regional Studies
Department of Urban Planning and Environment
Royal Institute of Technology
Teknikringen 10, 114 28 Stockholm, Sweden
Email: blal@kth.se

M. Sc. Paulina Guerrero
1st affiliation: Institute of Geography
Ruhr University Bochum
Universitätsstr. 150, 44805 Bochum, Germany
Email: paulina.guerrero@ruhr-uni-bochum.de

2nd affiliation: Department of Geography
Humboldt University of Berlin
Rudower Chaussee 16, 10099 Berlin, Germany

Dr. Nidhi Nagabhathla
1st affiliation: United Nations University - Institute for Water, Environment and Health
Hamilton, Ontario, L8P 0A1 Canada
Email: nidhi.nagabhatla@unu.edu

2nd affiliation: School of Geography and Earth Sciences
McMaster University
1280 Main Street West, Hamilton, Ontario, L8S 4K1 Canada

*For additional information you may also visit: <https://www.es-partnership.org/community/workings-groups/sectoral-working-groups/swg-5-water-management/>