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Greenhouse Gas Emissions from Water Systems

Guest Editors:

Dr. Long Ho

Aquatic Ecology Research Unit,
Ghent University, 9000 Gent,
Belgium

Prof. Dr. Peter Goethals

Department of Animal Sciences
and Aquatic Ecology, Ghent
University, 9000 Ghent, Belgium

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Message from the Guest Editors

In the past, researchers were mainly focused on greenhouse gas (GHG) emissions from the terrestrial (eco)systems to the atmosphere, while studies have underestimated the fluxes of GHGs from aquatic components (e.g., rivers, lakes, reservoirs, ponds, wetlands, septic tanks, sewer systems, and wastewater treatment plants). However, new evidence has revealed that the fluxes of GHGs within and through water systems are much higher than previously thought. For example, global carbon fluxes from streams and rivers to the atmosphere were estimated around 3.9 Pg C yr^{-1} , which is equivalent to 34% of total anthropogenic emissions from industrial activities and land-use change. Meanwhile, regularly receiving high loads of anthropogenic carbon and nitrogen, millions of ponds and lakes worldwide have become important sources of GHG emissions.

For further reading, please follow the link to the Special Issue Website at:

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Special Issue



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Dr. Jean-Luc PROBST

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Message from the Editor-in-Chief

In the context of global changes, the sustainable management of water cycles, going from global and regional water cycles to urban, industrial and agricultural water cycles, plays a very important role on the water resources and on their relationships with food, energy, biodiversity, ecosystem functioning and human health. *Water* invites authors to provide innovative original full articles, critical reviews and timely short communications and to propose special issues devoted to new technological and scientific domains and to interdisciplinary approaches of the water cycles. We ensure a critical review process and a quick turnaround between submission and final decision.

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Water Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
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