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Water Resources Modelling and Assessment for Small Oceanic Islands

Guest Editor:

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Deadline for manuscript submissions:

closed (30 April 2021)

Message from the Guest Editor

Water resources of small oceanic islands are under continual threat from both climatic and anthropogenic stresses. Climatic stresses include drought, decadal changes in rainfall patterns, sea-level rise and its effect on groundwater resources, groundwater salinization due to overwash events, and the destruction of rainwater catchment systems during typhoons. Anthropogenic stresses include over-pumping from the aquifer system, population growth, land use change, and contamination. Modelling tools often are used to estimate the impact of these stresses on water resources, to assist water managers in planning for current and future water needs. This Special Issue invites contributions from studies that use statistical, analytical, or numerical models to perform this assessment for small oceanic islands, particularly addressing: Future groundwater supply and groundwater quality; the impact of population growth, land use change, and climate change on the quantity and quality of surface water (small reservoirs, rainwater catchments) and groundwater reserves; and the impact of both long-term (drought) and short-term (typhoons) climatic events on the quantity and quality of stored water.









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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 technological scientific domains and 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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