Special Issue

Sustainable Irrigation Systems Management for Agriculture

Message from the Guest Editors

The sustainability of irrigated agriculture is threatened by reduced water allocations, increased water demand due to climate change and soil degradation. Optimizing water use in agriculture is critical in water-stressed regions. This requires efficient canal and delivery systems, efficient irrigation systems, and effective irrigation timing and management. Replacing surface irrigation systems with sprinkler and drip irrigation systems can increase water use efficiency by 30%. New tools are helping improve irrigation practices. In situ soil moisture sensors, irrigation and water use models, and satellite and drone remote sensing help optimize irrigation scheduling and water productivity. Remote sensing by satellite platforms such as OpenET can also help regulators quantify water use at the farm and district levels.

With reduced irrigation application rates, there is a danger of soil salinization. As such, application depths and irrigation district allocations must account for salinity control.

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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.

Editor-in-Chief

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