



Climate Change, Water Resources and Sustainable Development in the Arid and Semi-arid Areas

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Message from the Guest Editors

In the arid and semi-arid areas, water resources are scarce and the ecological environment is fragile. The contradiction between water consumption for socioeconomic development and water demand for ecological environment protection is particularly prominent. The sustainable development of social economics in arid and semi-arid areas depends on the sustainable use of water resources. However, in the context of climate change, the hydrological cycle is undergoing important changes, for example, affected by rising temperature, the evapotranspiration will increase, the beginning dates of spring snow melt may advance, and affected by increased rainfall, the frequency of flood events and flood peak flow may increase, etc. Therefore, the main purpose of this Special Issue is to discuss the effects of climate change on hydrological processes, runoff response to climate change, ecological water demand, water supply and social and economic sustainable development in arid and semi-arid regions. It will provide a reference for decision makers in arid and semi-arid regions to formulate elaborate integrated water resources management schemes and put forward climate change coping strategies.





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