Climate change is expected to induce alterations in the hydrological cycle, whose effects on water resources should be quantified in view of the possible adverse consequences on society and ecosystems. Obtaining reliable scenarios on water resources availability is a necessary prerequisite to planning mitigation measures as required in the last IPCC report. To achieve these goals, state-of-the-art hydrological models operating at the catchment scale should be combined with regional climate models. This calls for new approaches and a careful evaluation of the cascade of uncertainty emerging when the climate signal is transformed into hydrological surface and subsurface flows. We welcome contributions on all aspects of the multifaceted interactions between climate change and water resources, including basic research studies, data measurements, modelling results, management and adaptation strategies and policy issues.