Drought management
Drought constitutes one of the most impactful natural hazards, and negatively affect all areas of the economy, with impacts felt across key sectors such as water, energy, health, land-use, environment and ecology. Drought affects all regions of the world, though the global poor are disproportionately impacted, compromising livelihoods and giving rise to increased poverty and inequality. Managing drought risk is increasingly important in dealing with water shortage and scarcity and reducing these social, economic and environmental impacts, particularly within the context of climate change and the increasing incidence and severity of drought. This module focuses on the phenomenon of drought, including the occurrence of drought within the context of climate variability, and the impacts of climate change on the occurrence and severity of drought. Skills will be gained in describing and distinguishing different types of drought and the impacts these have on societal, economic and environmental sectors. The module will explore in depth the concept of drought risk and vulnerability and key components of drought planning and management framework. Climate adaptation strategies will be addressed, considering storage and water allocation, conjunctive water use strategies, and the role of climate services and how these contribute to mitigating drought impacts. Skills will be acquired on how drought planning and management is supported by drought monitoring and forecasting using actionable indices developed with open source data sources and tools. Additionally, students will develop scientific poster development and presentation skills as well as writing a short scientific paper (extended abstract) with focus on drought monitoring and management.