

## Global Assessment of Climate Change-Associated Drought Risk

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### Abstract

With the consequences of climate change becoming more evident, research on climate-associated risks has become a basis for climate adaptation and mitigation. Amongst the different sectors and natural resources considered in assessing such risks, drought is one impact to our environment that experiences stress from climate change but is often overlooked and has the potential to bring severe consequences when drought occurs. For example, when temperatures are higher, water demand increases and water supply decreases; when precipitation patterns fluctuate immensely, floods and droughts occur more frequently at greater magnitudes, putting stress on ecosystems. Hence, it is important for us to evaluate drought risk to observe how different climate change and socioeconomic scenarios can affect this vital life resource. In this study, we review the context of drought risk on the basis of climate change impacts and socioeconomic indicators. As underlined in the IPCC AR5 report, the risks are identified by understanding the vulnerability, exposure, and hazards of drought. This study analyzed drought risk on a global scale with different RCP scenarios projected until the year 2099 with a focus on the variables population, precipitation, water resources, and temperature.

**Keywords : risk, drought, climate change**

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