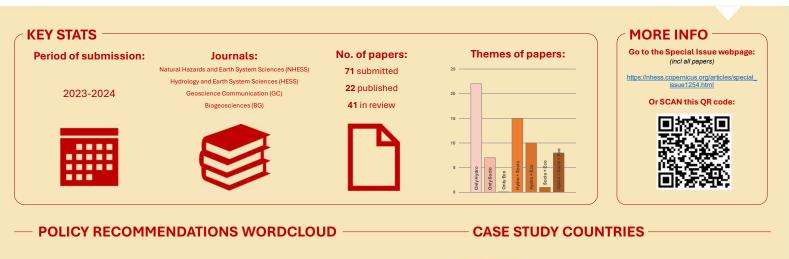
Recent drought research published in the Special Issue on "Drought, Society and Ecosystems"

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POLICY RECOMMENDATIONS (EXAMPLES)

"With future climate change, water management authorities should plan for significantly longer and more intense droughts than experienced before." (Falster et al. 2024)

"The 2018-22 drought in Europe had more social and forestry-related impacts, and less agriculture and livestock impacts. But spatial differences show the need for contextspecific approaches to drought management." (Sodoge et al. 2024) "Drought **impact information** and its relation to drought indicators can improve drought Early-Warning Systems" (*Tanguy et al. 2023*)

"Plants respond to drought stress and crop management in unexpected ways. Soil-crop models should focus not only on simulating stomatal regulations, but also require adequate representations of leaf growth and adjustments." (Thuy Huu Nguyen et al. 2024) "Unmanaged **groundwater** abstraction is unsustainable and could in the future cause a Day Zero situation of severe water scarcity. Long-term water management plans and regulations are needed." (Alvarez-Garreton et al. 2024)

"There is an urgent need to better align drought policy & planning guidelines with the contemporary disaster risk reduction agenda of the SENDAI Framework." (Masih 2024)

10 POLICY RECOMMENDATIONS FOR EFFECTIVE DROUGHT PREPAREDNESS AND MANAGEMENT

- 1. Develop Integrated Hydrological Models: Create comprehensive models to accurately predict water availability during drought conditions.
- 2. Implement Advanced Forecasting Techniques: Use advanced methods to predict monsoon variability and its impact on water resources.
- 3. Support Efficient Water Usage: Establish policies for efficient water management during normal rainfall to mitigate future drought impacts.
- Raise Awareness: Launch programs to educate stakeholders about drought conditions and water conservation methods.
 Enhance Agricultural Practices: Promote drought-resistant crop varieties and efficient irrigation systems.
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 Strengthen Inter-Agency Collaboration: Improve data sharing and joint action plans among agencies in anticipation of drought events.
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 Invest in Infrastructure: Enhance infrastructure to increase resilience against hydro-meteorological extremes, such as building reservoirs and
- improving groundwater recharge mechanisms.
 Prioritize Drought Research: Focus on research about drought and climate change impacts on regional water cycles to inform long-term planning.
 Encourage Community Participation: Involve communities in local water management decisions, integrating traditional knowledge with scientific.
- 9. Encourage Community Participation: Involve communities in local water management decisions, integrating traditional knowledge with scientific findings.
- 10. Formulate Adaptive Policies: Develop flexible policies that can quickly respond to evolving drought scenarios based on real-time data analysis.



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