



A culture of proactive drought management? Unraveling the perception and management of droughts in Swedish municipalities.

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Hydro-climatic risks like droughts are a natural part of climate: they always have and always will take place. They are generally controlled by natural climate variability and anthropogenic impacts, but their proportional roles are not yet fully understood nor quantified. The most recent Swedish drought events of 2016/2017 and 2018 clearly showed that even a nation in Northern Europe not commonly associated with droughts could be fretting over water shortages. Both events had severe effects on the environment and Swedish society, ranging from forest fires to lost harvests and emergency slaughter of livestock and lower revenues from tourism. Another major societal function affected by these drought events was the drinking water supply. As Sweden is a country usually abundant with water, we argue that these two consecutive droughts hit Sweden in a state of unpreparedness. We posit that Swedish society is currently limited in its ability to independently deal with droughts and their consequences for different functions of the society. In line with the 6th Sustainable Development Goal ('Ensure availability and sustainable management of water and sanitation for all'), such drought conditions are to be better managed in the future, which urgently requires a more comprehensive understanding of the interactions between physical and socio-economic systems during drought events. Municipalities are the most important decision makers within crisis preparedness and management. Hence, it is important to investigate how their perceptions and strategies are shaped. We hypothesize that different actors in the society could have coped better with the recent water shortages if they better understood the risks faced and if they had right strategies and instruments to prepare for extreme droughts. Therefore, we conducted a survey among local decision makers in Sweden to analyze drought perception, crisis preparedness and management among more than 100 municipalities. We directly compared decision makers' perception of recent droughts to the observed drought severity as measured by different drought indices. As the assumption that access to good water guarantees a continued welfare and functioning of our society is the foundation of Swedish water governance, we argue that Sweden needs to focus on increasing society's adaptive capacity and resilience in order to guarantee a robust drinking water supply.