

Science for Environment Policy

Equality is key to effective climate change adaptation

Climate change adaptation measures could improve the security of some groups of society at the expense of others, a new study concludes. Climate change adaptation policies should be based on genuine democracy and investment must be fairly distributed, to ensure that all at-risk groups benefit equally, its authors recommend.

Climate change will increase the challenge of managing [water](#) resources, which are already under stress from numerous pressures, including economic development. Safe access to adequate water supplies is essential to human security and fears have been voiced that climate-related changes to water resources, including scarcity and flooding, could lead to violent conflict.

This study, part of the EU CLICO¹ project, examined the links between climate, water, conflict and security using 11 case studies in the Mediterranean region, the Middle East and the Sahel (a band of land in Africa which lies south of the Sahara desert). It focused on the political and economic sources of human insecurity related to water resources including both flooding and scarcity. In particular, the researchers investigated the implications of both state policies and community-led adaptation initiatives on different groups of the population.

After reviewing the case studies, the researchers made three key observations:

1. Political and economic factors, especially how democratic a state is, have more influence over water conflicts than actual water scarcity. Political equality is an important factor in reducing tensions and conflict as it helps ensure a fair distribution of benefits and allows all stakeholders to be part of the decision-making process.
2. Adaptation policies that benefit some groups of people may adversely affect other groups. States are key players in adaptation responses to climate-linked water issues, but they can create human insecurity if they invest in adaptation for one group at the expense of another. For example, in response to a mudslide disaster in Italy in 1998, authorities constructed concrete canals to protect the Sarno floodplain. However, the funds for that large investment could have been used for 'softer' interventions to reduce vulnerability to mudslides in wider areas.
3. If adaptation policies are based on unequal power relationships, they may result in violence. For example, in the Gambella region of Ethiopia, which experiences droughts and flooding, plans to promote economic development and alleviate poverty include agricultural development and re-settling people in new villages away from floodplains. Although this move ensures the villagers are less vulnerable to flooding, they face greater water insecurity if water becomes scarce, especially during the transition period. This is because their traditional methods of responding to climate variability, such as changing cultivation, may no longer be available to them.

This study highlights difficulties that may arise from climate adaptation policies that promote security for some at the expense of others. Inequalities may be reduced by pursuing an integrated approach to social, political and economic processes that includes climate adaptation policies. Such an approach should rest on genuine democracy where all concerns can be voiced and social security systems are strengthened. In this way human security can be increased, making water conflicts less likely.



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