

Could computer games help farmers adapt to climate change?

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Researchers from Sweden and Finland have developed the interactive web-based Maladaptation Game, which can be used to better understand how Nordic farmers make decisions regarding environmental changes and how they negotiate the negative impacts of potentially damaging decisions.

Scientists from Sweden and Finland say gaming presents both challenges and benefits for communicating climate change methods to farmers

Web-based gaming, such as simulation games, can promote innovative communication strategies that engage farmers with [scientific research](#) and help them adapt to climate change.

Methods employed to tackle [climate change](#), such as, for example, improving drainage systems to cope with increased levels of precipitation, are known as adaptation strategies. "Maladaptation" is the implementation of poor decisions or methods that were initially considered beneficial, but which could actually increase people's vulnerability in the future.

Researchers from Sweden and Finland have developed the interactive web-based Maladaptation Game, which can be used to better understand how Nordic farmers make decisions regarding [environmental changes](#) and how they negotiate the negative impacts of potentially damaging decisions.

Their research is presented in the article "Benefits and challenges of serious gaming – the case of "The Maladaptation Game" published in De Gruyter's journal Open Agriculture, by author Therese Asplund and colleagues from Linköping University in Sweden and the University of Helsinki in Finland. Tested on stakeholders from the [agricultural sector](#) in Sweden and Finland, the Maladaptation Game presents the player with four agricultural challenges: precipitation, [temperature increase](#)/drought, longer growing seasons and increased risk of pests and weeds. For each challenge, the player must make a strategic [decision](#) based on the options given. At the end, the player receives a summary of the potential negative outcomes based on their decisions.

"While we observed that the conceptual thinking of the [game](#) sometimes

clashes with the players' everyday experiences and practice, we believe gaming may function as an eye-opener to new ways of thinking," explains Asplund.

Based on recent literature on serious gaming and climate communication, the authors suggest that serious games should be designed to include elements of thinking and sharing, which will stimulate reflection and discussion among stakeholders.

"Serious games have great potential of how to address complex environmental issues. Used as a communication strategy, they illustrate, visualise and communicate research findings," says Asplund.

More information: Therese Asplund et al. Benefits and challenges of serious gaming – the case of "The Maladaptation Game", *Open Agriculture* (2019). [DOI: 10.1515/opag-2019-0010](https://doi.org/10.1515/opag-2019-0010)

Provided by De Gruyter

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