



Serious gaming - a tool for mind-set transformations related to climate adaptation?

Lotta Andersson (1,2) and Tina-Simone Neset (2)

(1) National Knowledge Centre for Climate Change Adaptation, Swedish Meteorological and Hydrological Institute, Norrköping, Sweden, (2) Department of Thematic Studies – Environmental Change, Centre for Climate Science and Policy Research, Linköping, Sweden

As part of the governmental mission to act as knowledge brokers in the field of adaptation to climate change, the Swedish National Knowledge Centre for Climate Change Adaptation, together with Linköping University, is developing a serious game concept with the aim to provide an experience of how different functions in society are influenced by choices or lack of choice of climate adaptation measures.

The game is primarily targeted towards high-school students, but could also be used by, e.g., practitioners and politicians in municipalities that recently have initiated work on climate change adaptation. Sharing experiences from game sessions could contribute to the development of a common understanding of the needs and benefits of adaptation actions. In its present version the game is developed in Minecraft as a single-player game. Moderated dialogues between players are a vital part of the game, with the aim to address: What are the consequences (cost-benefits) related to actions taken (or not taken)? How to take decisions with consideration to uncertainty and natural variability (provided from a climate generator)?

The concept has been evaluated from testing with high-school students and teachers. The potential of to engage students seems to be promising, especially when the game has been integrated in a role-play setting, where the players reflect upon different societal roles and perspectives. However, for some teachers the integration of gaming in education has been perceived as a technical challenge. The next step of the work will therefore include provision of a simpler web-based in order to increase the audience that feels comfortable with the use the game concept. However, while technical and methodological challenges remain, the use of serious gaming has been shown to support dialogues and engagement and will now be tested together with politicians in three Swedish municipalities under guidance of high-school students from the participating municipalities.