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Empowering smallholder farmers in climate field schools: Farmer led-research

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Abstract

Farmers are local experts of their socio-ecological systems. With their knowledge and skills on land, plant and local weather, farmers are responsible actors in the food system at local and global scale. Climatic changes caused by global warming happen so rapidly that they outrun farmers' ability to adapt to them. Tropical Indonesia, with its thousands of islands is not only vulnerable to sea level rise, but also faces rising temperatures, unpredictable and erratic rainfall patterns leading to extreme events, floods, droughts, strong winds and landslides. The risk perception paradox that illustrates the gap between perception of the impacts of climate change and the capacity to act or adapt, can be moderated by farmer-led adaptation research. Ten years ago, Climate Field Schools (CFS) were established in Indonesia allowing a space for bottom-up learning between farmers and scientists on agrometeorological learning and climate-resilient practices. In the “school without borders” everyone is regarded as a co-researcher and knowledge is co-created.

The aim of the study is to document the impact of CFS to transforming local food systems from the perspective of local smallholder farmers in Pangandaran, West Java and Tana Toraja, South Sulawesi. Farmers of the two food regions were engaged in a participatory action research that employs filmmaking and photography with subsequent semi-structured interviews with groups and individuals. The extent to which changes in rice and chili cultivation practices and increased awareness of climate change lead to changes in collaborative and social systems was investigated. How far CFS influenced farmers' adaptive capacities was another analysed aspect. The visuals and associated stories form a basis for reaching out to decision- and policy-makers. The study illustrates what impacts on local food systems emerge from the analysis of the collected materials. One of the findings is that farmers perceive CFS as an empowerment process since they have increased their problem-solving skills and experienced symmetric communication at eye level with other actors.

Keywords: Adaptation, climate field schools, co-research, Indonesia, participatory research