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Designing and modelling a shared representation to support changes in agricultural practices in Guadeloupe: a school of stakeholders of the territory

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Abstract:

Agriculture can have negative impacts on the environment, such as pesticide contamination of water. The relationships between agricultural practices and environmental impacts are complex. To improve the quality of the environment and agricultural products, solutions require an interest in both physical processes (e. g. transfer of contaminants) and human processes in order to set up a system for evaluating and monitoring innovations in agriculture. The action-research territory is a set of watersheds in Guadeloupe, with high banana production and historically marked by a serious pollution from farming, using chlordecone (kepone) between the 1970s and 1990s. The aim of the support of the stakeholders is to facilitate the learning process for the change of agricultural practices. Modelling is the privileged tool for research to represent dynamics and simulate consequences of action, even before implementing experiments. We use the DPSIR model (Driving Forces, Pressures, States, Impacts and Responses), a robust qualitative model of the European Environment Agency for monitoring and evaluating environmental policies, to enable the exchange of views for collective learning processes. The partners involved are the various stakeholders of the territory: farmers and players in agricultural development, land managers, associations, inhabitants, consumers, and the scientific community, which we regularly gather in sessions of a "school of stakeholders" of the territory.