

Agroecological Rice Farming in Iran: Adapting to Climate Change

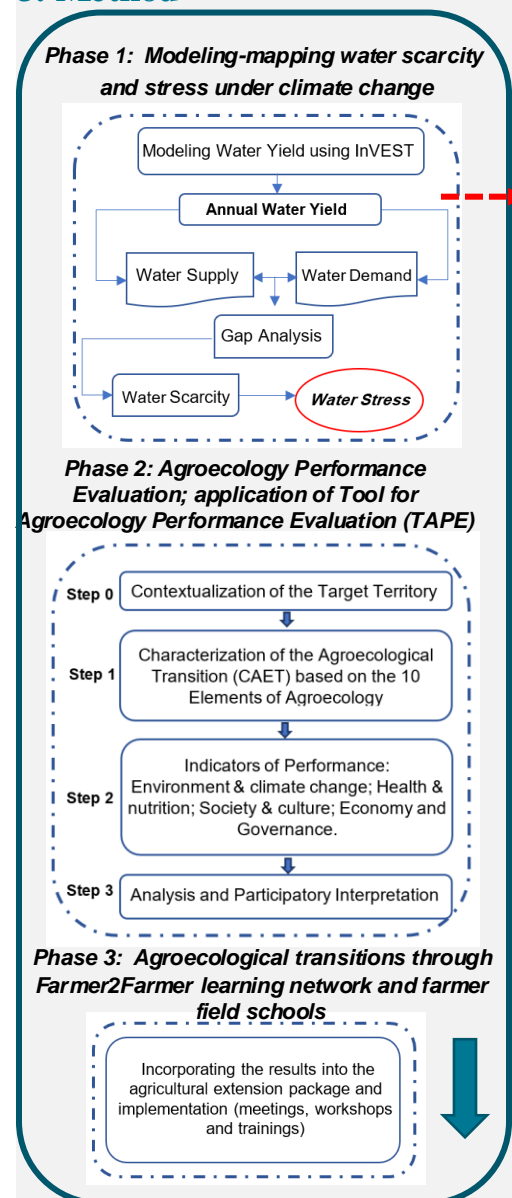
Fatemeh Adelisardou¹, Johanna Jacobi¹, Lutz Merbold²

¹Agroecological Transition, ETH Zurich; ²Agroecology and Environment, Agroscope

1. Introduction: Climate change, along with water scarcity and rice monoculture, challenges Iran's agriculture. High fertilizer and pesticide use reduce yields, increases environmental and health risks, and threatens food security.

2. Research Goal: Understanding the journey from today's conventional farming to the innovative, sustainable farming of the future: How far we still have to go?

3. Method



4. Results of Phase 1



Overlaying rice field extracted from satellite data with water scarcity information from a water yield model

Time to Travel to Iran for field work, application of TAPE through interviews with 150 farmers

5.1 The meaning of Agroecology for Iranian Rice Farmers

Women empowerment



Trichogramma wasps for pest management



Use Light traps for pest management



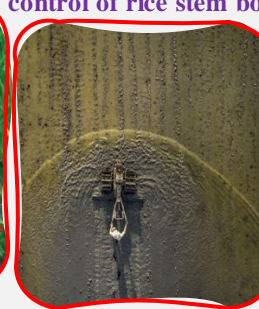
Intercropping of two rice varieties



Rice-Fish co-culture system



Land flooding for winter control of rice stem borer



Rice-Duck co-culture system

1. The ducks in the orchard await farmer to open the pipe.
2. The ducks entered the rice field through underground pipe.

The integrated orchard/farm system where ducks enter the rice farms through an underground pipe

The major activities of ducks and their effects in the rice paddy field

5. Phase 2 Experiences

Interview with Farmers

Field Assistant Training

Biodiversity in organic farms

Intercropping system

Expected outcomes of the project:

Community Diagnostic: Analyzes current performance and identifies challenges for sustainable agriculture

Paradigm Shift: Promotes agroecological principles in policies and society

Capacity Building: Enhances smallholder skills and encourages F2F learning networks

Partner/Sponsor: