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Farmers’ and academia’s views”

From wasteland to oasis evidence of an agricultural development programme

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Abstract

Current yield trends, especially in rain-fed farming areas, are not encouraging, and suggest a need for proactive policies. Little evidence exists, however, which can inform the design of policies to meet this goal.

We assess the impact and underlying causal relationships of an agricultural development programme and its potential to transform livelihoods and places of chronic poverty. The programme we scrutinize is the Wadi concept, an integrated farming system including water resource development, soil conservation, fruit- and forest trees and intercropping on one-acre (0.40 Ha.) of so-called “wasteland”, which would not otherwise be used for rainfed crop growing.

The geographic rollout of the programme produced a natural experiment, giving rise to treatment and control groups. We follow a mixed methods approach, including a survey of 2,000 households, randomly sampled from 188,231 participants in 4 Indian states, covering geographically different areas. We compare households who participated in the programme to non-participants, and run a linear regression analysis, *ceteris paribus* comparing farmers that have established integrated farming systems respectively at different points in time over the period 1990–2017.

We find a clear and significant trend in improvement of socio-economic factors, including: food security, higher income, diversified income sources, positive life changes, higher life satisfaction and better future for children, as well as ecological benefits.

The effectiveness of the Wadi programme to provide sustainable development pathways implies benefits to be had from scaling it up. By rigorously assessing its potential to help farmers escape from chronic poverty and to build resilience, this study provides evidence in the science-policy dialogue of development programs.

Keywords: Agricultural development, chronic poverty, food security, integrated farming system, resilience, smallholder, sustainable intensification