

# A food security experiment in remote areas: Evidence from Odisha, India\*



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## Abstract

Community grain banks - village-level institutions which lend grains during the lean season, to be returned with interest (also in the form of grains) in the harvest season - are one component of the food security strategy of many rural development NGOs active in Odisha. Like Sahelian cereal banks, their better-known but distant cousin, grain banks are also managed and owned locally, and are often praised by NGOs as sustainable solutions to recurring seasonal food insecurity, especially in remote areas. By providing consumption credit, grain banks help households to self-insure and smooth consumption by channeling savings from the harvest period to the lean period. They also provide an alternative source of credit to households in regions with limited credit market competition.

As in the case of cereal banks, anecdotal evidence on the benefits of grain banks for food-insecure populations abounds. For cereal banks, this is supplemented by quantitative evidence. In the case of grain banks, however, there is no such evidence. In order to fill this gap in knowledge, we implemented a quantitative evaluation study using data from over 500 households and 28 villages in Rayagada and Koraput districts in indigenous Odisha. The impact evaluation, which exploits the fact that not all villages in the survey area had grain banks, uses propensity score matching methods. It finds no significant impact of grain banks on health outcomes (specifically, on children's anthropometric scores). Though unexpected, it is not surprising, perhaps given the poor basic sanitation in that region and how sanitation confounds the relation between nutrition and health. Though the study finds estimates of reduced moneylender reliance, these results are sensitive to specification. This analysis cannot be definitive for grain banks as a whole as it does not explain new case studies of grain banks which show a positive impact on food security. A well-designed experiment could help explain this contradiction and improve the design of a local, member-managed institution that could promote sustainable food security for remote populations.

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