



Growing vegetables on fallow rice fields between growing seasons: Challenges and opportunities in South-Eastern Madagascar

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INTRODUCTION

- In terms of Food and Nutrition Security , the South East region is among the most vulnerable regions in Madagascar
- Farming activities happen on small plots and focus on farmers' subsistence
- One opportunity may consist in using the rice fields for short-cycle horticulture.
- .This practice is still relatively uncommon, but it is unclear what hinders most farmers from implementing it. Typically, the rice fields lay fallow for a while, especially in July (**Fig 1**)



Fig 1: Fallow rice field in July



Fig 2: Flooded rice field

RESEARCH QUESTION

What are farmers' barriers and motivations regarding vegetables production on rice fields between the growing season of rice ?

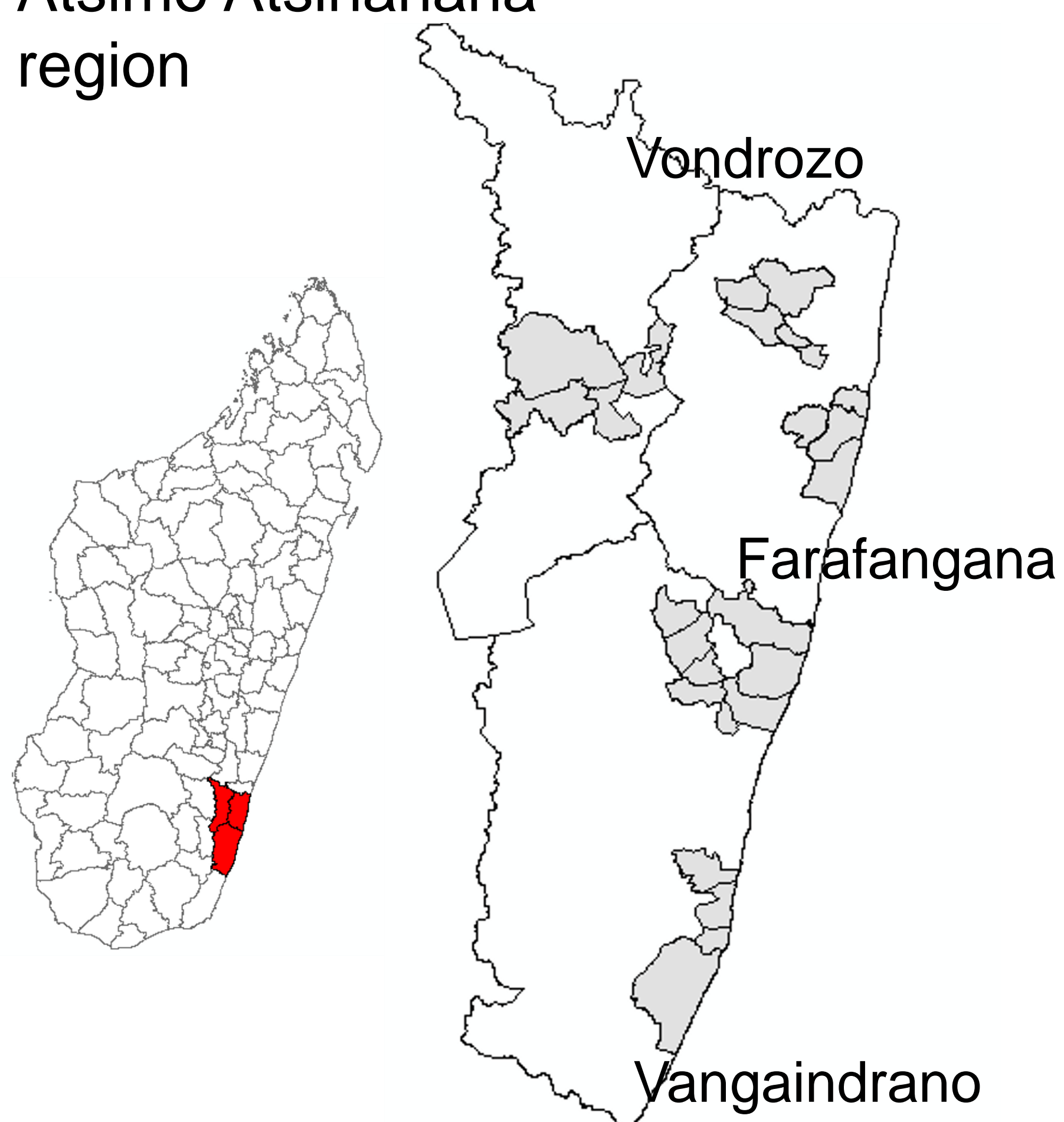
Research objectives: identify key hindering factors and motivating factors that affect farmers' decision to cultivate or not vegetables in the rice field

4 hypotheses for barriers to vegetable production on rice fields:

- Technical barriers
- Attitudinal barriers
- Market barriers
- Gender barriers

RESEARCH SITE

Atsimo Atsinanana region



METHODS

Field research: august, 2021

Identification of interviewees: ask local authorities and technicians where doers can be found in the 5 clusters, then identify non doers in the same location as doers

Semi-structured interviews with doers and non-doers

- Doers: farmers who grow vegetables on rice fields
- Non doers: farmers who grow vegetables but on other plots
- 1h of interview
- 26 doers and 50 non doers

Qualitative content analysis

- Interviews transcriptions : Microsoft word
- MaxQDA : coding technic
- Deductive coding (based on hypotheses) and inductive coding

RESULTS: BARRIERS

Technical barriers to growing vegetables in or by the rice field:

- High risk of flooding of some rice fields (**Fig.2**)
- Rice field far from the village

Attitudinal barriers to growing vegetables in or by the rice field

- "Rice field is only for rice"
- "Fertilizers damage the rice field"
- "Growing vegetables in the rice field is only for non-locals"

Market barriers to growing vegetables in or by the rice field

- Low market demand for increased vegetable production
- High travel effort to big market

Gender barriers to growing vegetables in or by the rice field (not confirmed)

RECOMMENDATIONS

- Inter-seasonal vegetables production on rice field is an opportunity for few farmers who have non flooded rice fields, located near villages and near water source
- These farmers should be targeted with trainings to overcome attitudinal barriers

RESULTS: OPPORTUNITIES

Soil fertility improvement

Fertilizer input during vegetables cultivation improves rice production afterwards

Income source before lean period

(sept-nov)

Short cycle plants

Quick return on investment

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