

NutriHAF – Africa

The Role of Biodiversity and Natural Resource Management in Food Security in South Eastern Madagascar

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Project partners



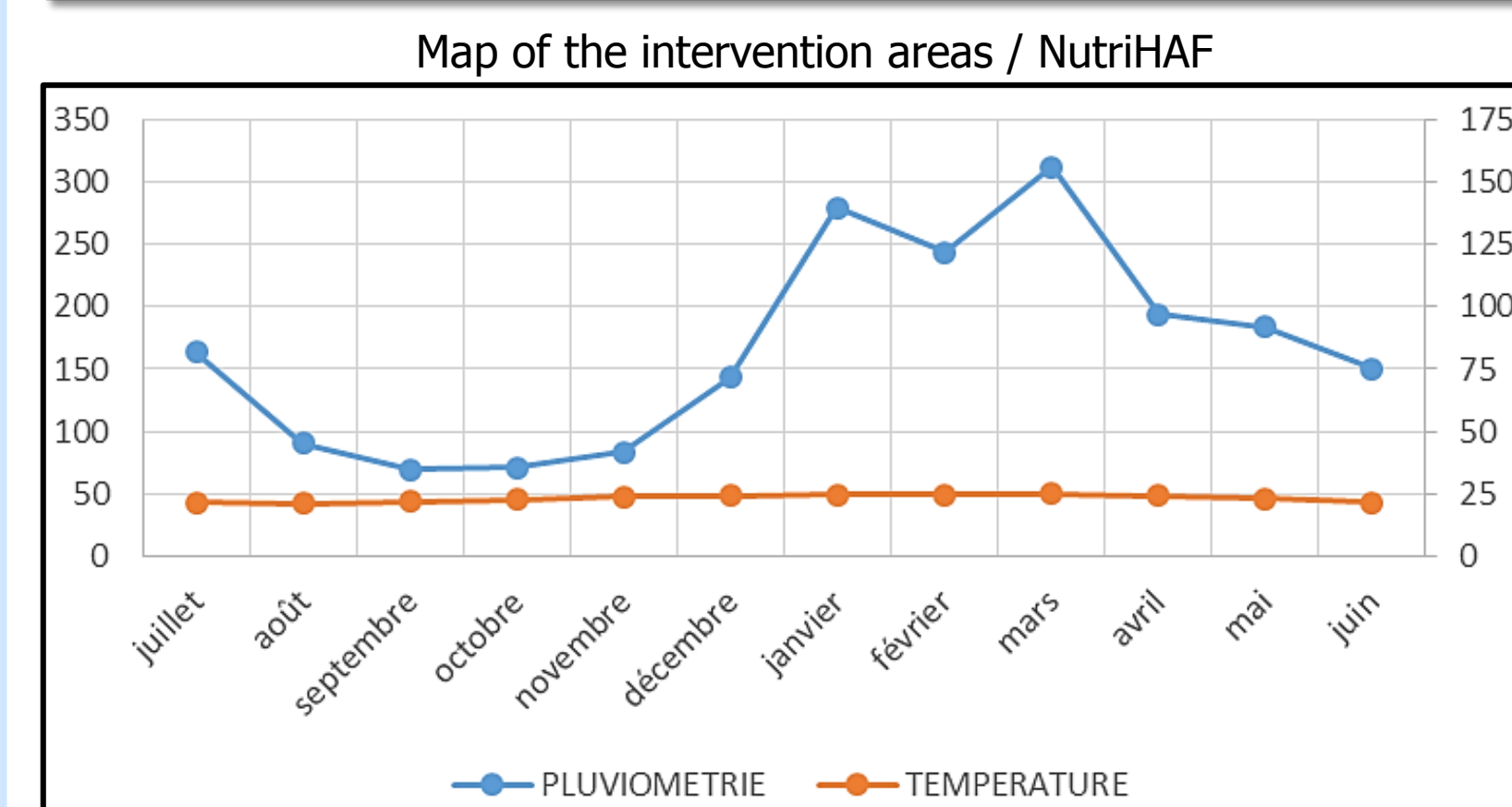
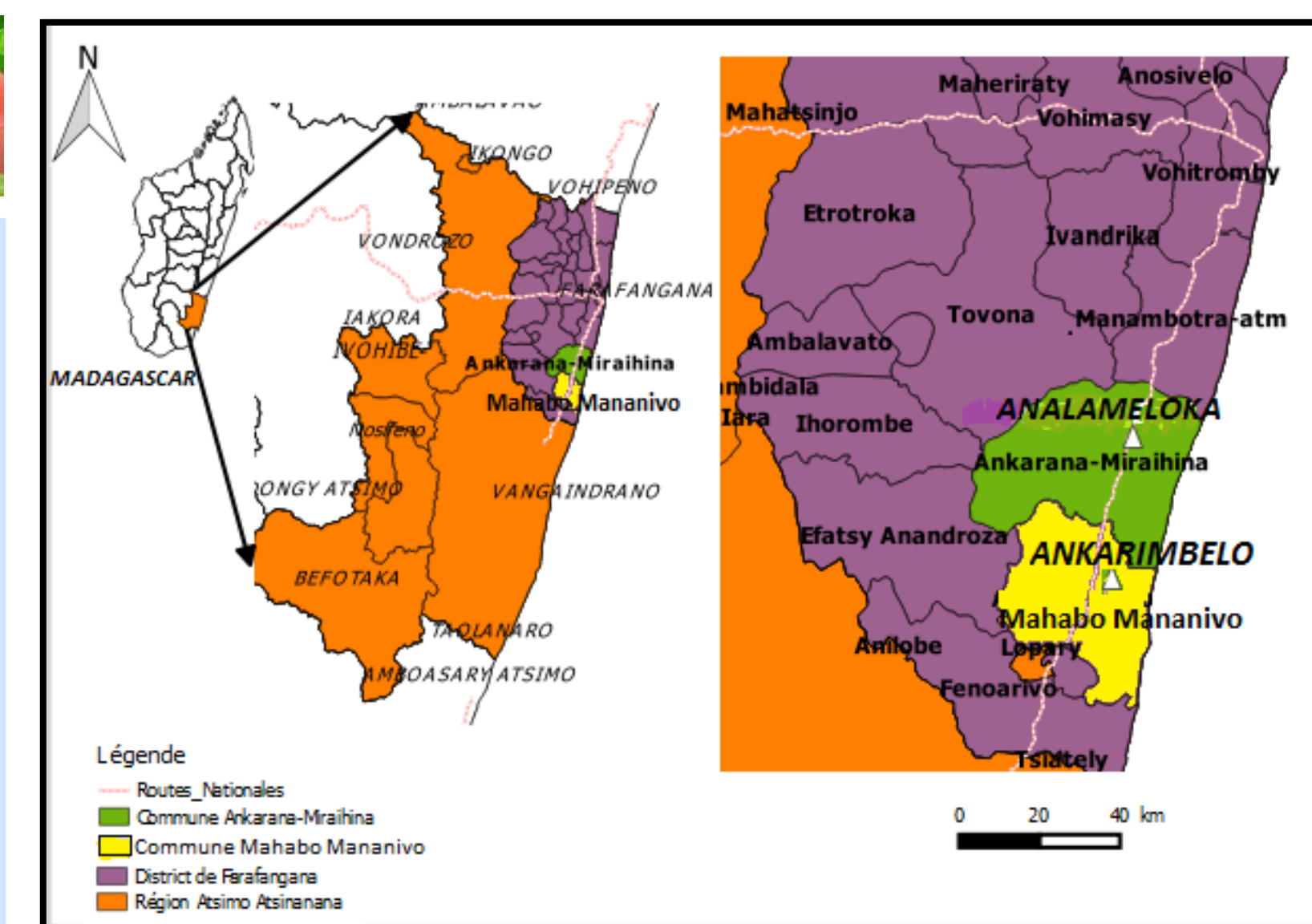
With support from



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Intervention areas

- Fokontany of Ankarimbelo
23°07'38,8" south latitude and 47°44'11,8" east longitude
Medium altitude : 35 m
- Fokontany of Analameloka
23°03'32,5" south latitude and 47°43'27,7" east longitude
Medium altitude : 50 m
- Common characteristics of landscapes
Succession of small hills, slopes and low land
Villages located on hills, surrounded by home gardens
Humane pressures on biodiversity
- Ombrothermic diagram
Hot and humid (hot and humid austral summer, winter less rainy and softer)
Annual average temperature: 23,18°C / Monthly average rainfall: 165,50
Wet period from August to November ($P \geq 2T$ but $P < 100$ mm per month)
Perhumid period from July to December ($P \geq 2T$ and $P > 100$ mm per month)
Cyclonic period from January to March

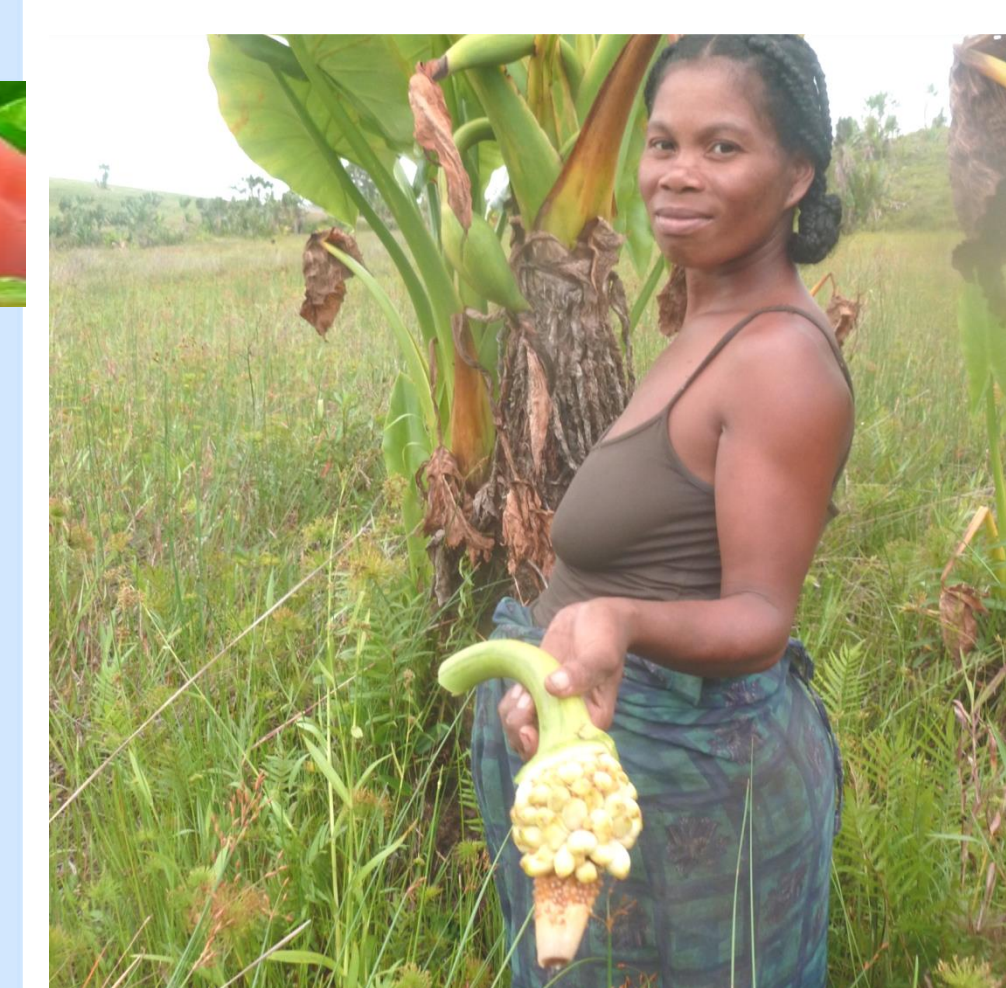


Methodology

- Discussion with key stakeholders (Ampanjaka, Lonaka, Head of fokontany)
- On-farms surveys (150 farmers at the fokontany of Ankarimbelo / 125 farmers at the fokontany of Analameloka)
- Gender – disaggregated focus group
04 groups of discussion (men, women, young men, young women) / 16 focus group discussions
- Main themes treated in the questionnaire
Farming systems / Diet habits / Uses and natural resource management



Focus group discussion © NutriHAF



Eating habits

- Rice as staple food
3 times per day, period of abundance (May – August) / 1-2 times a day, lean period (September – April)
- Rice supplements during the lean period
Cassava, Breadfruit / Viha or *Typhonodorum lindleyanum*, Sweet potato / Wild foods: Fruits (Breadfruit, Viha), Tubers (*Tacca leontopetaloides*, Yam, Viha)
- Low consumption of vegetables
Picking leaves, 1-2 times a week, lean period / Leafy vegetables, Fruit vegetables (African eggplant, Eggplant), 1 time per day, period of abundance
- Mean consumption of fruits (Guava, Litchi, Mandarin, lean period / Jackfruit, period of abundance)
- Low consumption of meat (2-3 times a week, period of abundance / 2 times a month, lean period)
- Mean consumption of aquatic products
Crayfish, Fish; 3 times a week, period of abundance and lean period

Nutritional status

- Downward trend of about 20% of daily calorie intake between period of abundance and lean period
- Required calories 2400 Kcal generally reached except during the lean period for vulnerable households in Ankarimbelo
- Structure of the daily calorie intake of food consumed by households
Over 80% from carbohydrate / 10% from proteins (75% from plants) / 5% from fat
- Daily intake of micronutrients
Calcium intake lower than the required standard
Vitamin C intake: Lower than the required standard, period of abundance / Higher than the required standard, lean period
- Calorie intake from biodiversity
About 20% of the daily calorie intake / Significant source of calories from protein (over one third)
- Micronutrients from biodiversity
Over 40% of calcium intake, lean period and period of abundance
60% of vitamin C intake, lean period / 10%, period of abundance

Biodiversity management

- Management modes involving traditional and administrative authorities
Rules set as taboos become customary practices of local communities allowing better management of natural resources (Viha)
Rules set as prohibited become customary practices allowing local communities to better manage natural resources (Mahampy or *Lepironia mucronata*)
Hybrid form of setting-up the rules: Development project involving traditional and administrative authorities (Collective eucalyptus reforestation)
- Local practices (*Tavolo* or *Tacca leontopetaloides*, *Kadado* or Heart of ravenala, aquatic products)



Traditional authority © NutriHAF



Biodiversity use © NutriHAF



Biodiversity use © NutriHAF



Biodiversity use © NutriHAF



Food staples © NutriHAF

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