Collaborating with social scientists to inform community-based conservation of the habitat of Eulemur cincereiceps



#### Elianne Raharisoa

Missouri Botanical Garden, Madagascar Research and Conservation Program



#### Context

- Most Malagasy protected areas are threatened, and these threats mainly due to locals
- Conservation success depends on identifying and implementing activities to ethically mitigate these threats
- Definition of activities requires a deep understanding the unique cultural and socio-economic context of diverse local stakeholders
- PA Management teams (especially site-based staff) have a good understanding of the complex drivers for non-sustainable practices and integrate (sometimes subconsciously) this knowledge into decisionmaking.
- However, collaboration with social scientists can provide more objective, far-ranging, nuanced and explicit insights that are powerfully relevant to decision-making
- Example: study of local perceptions at the Agnalazaha Protected Area

# Introduction: the Agnalazaha Forest

- 2745 ha of very rare littoral forest in SE Madagascar
- Rich biodiversity including many threatened species: CR Grey-headed brown lemur
- MBG has supported community-based conservation here since 2002.
- Designated as PA in 2015, management delegated to MBG.
- Includes zones of strict conservation and sustainable use
- Threats:
  - Formerly = lemur hunting, shifting cultivation, charcoal production;
  - Persistent = over-exploitation of timber, wildfires, alien invasive species.





## Introduction: the locals

- Intersects with 10 fokontany (total population = 8738 Instat, 2020)
- Antesaka
- Subsistence farmers (rice, cassava, maize, sweet potatoes), fisherfolk, pastoralists (zebu), weaving
- Reliant on natural capital for fertile soils, water, timber, fuel.
- Prone to environmental catastrophes, and social instability



#### Methods

- Objective to capture information on local perceptions about forest, MBG and the hedge project.
- Collaboration with Chester Zoo (context of DI-funded project to promote use of hedges to protect crops from cattle).
- Chester Zoo's social scientists (Greg Counsell+ Andrew Moss ) conceived method and trained me in application and analysis of data.
- Semi-structured interview using Dictaphone of random sample of locals(N=84), transcription, analysis.

- Apart from the use of the valavelo fences, what other strategies would you recommend to better
- 174 protect your farmlands? Tell me about your current seeds and crops? Are they growing well?
- They seem to be growing well as I noticed from my fields vesterday
- 176 How about the pineapples?
- 177 They seem to be growing well too.
- Are the valavelo fences helpful to you?
- 179 Yes they are! I just want to make sure I take a good care of the valavelo and barbed wire so that they can last for years so that the zebus are kept away from our farmlands
- 180
- 181 Have the non-beneficiaries of the valavelo project ever asked you about the project and its benefits?
- 182 Nobody is asking about it up to now
- 183 This brings us to talk about the MBG now after talking about the project. Tell me what you know
- 184
- I find MBG and its actions beneficial to me as they have supplied the barbed wires so I will be always
- 186 thankful to what they have done for the community
- 187 Tell me more about the things you have benefited from them?
- To be honest, I haven't gotten much from them except the barbed wires
- Do you mean you've only been given the barbed wires? 189
- 190
- 191 When you pass by the town, you'd better inquire on the supply dates of clove, or young coffee
- 192 plants provided by MBG
- 193
- 194 Do you think MBG and its actions beneficial to your commune?
- 195 Do you mean within our commune? Are its actions beneficial to the people in our commune? I'm not
- 196
- I just wanted to know your opinion on the actions of MBG in your community. Do you think they are
- They have really impacted our community as far as I see it





# What do locals really think: the forest

Questions types	Responses	Percentage
Change in forest	Worse before	73%
	Same (didn't change)	18%
	Better, Dense and large	14%
Should the forest be protected ?	Yes	100%
Why should the forest be protected ?	Resources (water, wood for houses, fences)	70%
	Important Environmentally (increase the rain, soils fertile)	46%
Should access to natural resources be restricted	Yes, for the beneficiaries of MBG	87%
	Maybe, for the non beneficiaries (existing rules enough", "but coupled with other support for all")	64%



# What do locals really think: MBG

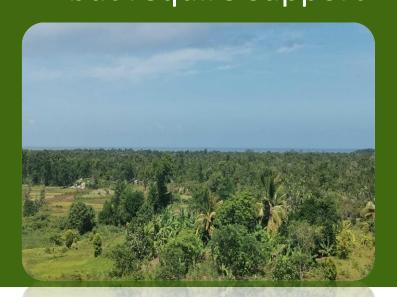
Questions types	Responses	Percentage
Understanding of MBG's role	Protect the forest + community development "providing things"	93%
Appreciation of MBG	Positive: providing ducks, chickens, clove trees, eucalyptus" "helped forest to improve", "need more jobs, more materials.	83%
	Sad, that rules have changed	14%
Responsibilities about protection	Joint responsibility of Community/MBG	46%
	Sole responsibility of locals ("the forest belongs to them")	21%
	Sole responsibility of MBG	15%

# What do locals really think: the hedge project

Questions types	Responses	Percentage
Understanding of project	Beneficiaries: protect the forest from exploitation intensive of the poles.	93%
	Non beneficiaries: help the farmers to protect their crops.	79%
Evaluation of project	Beneficiaries: report positive change in life. "we don't cut young stems in the forest anymore", "we Have more time for farming and fishing", "we have a good harvest because the crops doesn't eaten by zebu anymore".	93%
	Not sure some installed recently, some waiting the result from others.	7%

## What did we learn?

- Forest appreciated for resources (not biodiversity!)
- Role of MBG in conservation understood but MBG appreciated mostly for livelihood support
- Most accept rule-based sustainable exploitation
  but require support





### Discussion

- Despite 2 decades of awareness-raising about biodiversity (especially lemurs) very few mentioned it.
- People's clear priorities = own well-being
- Supportive of conservation/sustainable use if positive impact on well being





### Conclusions

- This collaboration not only provided a compelling channel to seek feedback from locals but also built capacity in Madagascar for further work of this type.
- A powerful example of how foreign researchers can use their abilities to directly improve conservation outcomes.



# Acknowledgements

- We thank all the partners who are helping us to conserve the Agnalazaha Forest. The "hedge project" was funded by the UK Government through Darwin Initiative.
- Special thanks are due to Claire Raisin for jointly directing the Hedge Project, and Greg Counsell, Andrew Moss, Charles Wheeler for guiding the social study in Chester Zoo.
- Special thanks are also due to Washington University in St. Louis,
  without whose support enabled my participation at this congress.









RioTinto



