Projet Renala 2

A brief report of activities in Madagascar by Jim Bond, (31st May-17th July 1997)

This project follows on from a reconnaissance ethnobotanical expedition in 1996.

Objectives

i) Further contact-building and ethnobotanical research with the Mikea people of SW Madagascar, and exploration of their territory.

ii) Assessment of the epidemic of tuberculosis among the Mikea, the efforts so far to control it, and the possibilities for setting up a community-based TB programme within their forest home.

iii) Continuing research on the baobabs *(Adansonia* sp.) of Madagascar, their ethnobotany, ecology and distribution.

Introduction

The Mikea live in small, dispersed groups throughout the dry west of Madagascar, but most notably in a region of spiny forest on sandy soil between Toliara and Morombe, known as the Alan'ny Mikea or Mikea Forest. Poorly understood by most other Malagasy, they are characterised by their forest lifestyle, which depends to at least some extent on hunting and gathering wild foods and moisture-bearing plants. Only recently have they been exposed to outside influences, diseases and the cash economy. They are very poor in terms of health and economic power and are consequently easily exploited by nearby villagers and Indian businessmen, who now have them working to slash and burn their own forest down for *hatsake,* the (unsustainable) cultivation of maize.

The Mikea Forest itself forms the largest part of a distinct vegetation formation, the xerophytic, southern, dry forest on sand, and is of worldwide significance in terms of plant species endemicity (~ 90%). Unfortunately this unique vegetation has the least official protection of all Madagascar's remaining primary vegetation types, yet is being cleared at an alarming rate (~ 23% over the past ten years according to Réau's 1996 thesis). *Hatsake* is the main threat and alternative sources of income are urgently needed before the whole forest is lost, along with the Mikea way of life.

Activities

This year we spent a full month in the field in the Mikea Forest, mainly in the north-eastern corner, where we were based in the villages of Marolinta and Andranondehoke. The team was the same as last year: Jaovola Tombo accompanying me as research partner and translator, Messrs. Gervais and Benge as ox-cart *(sarety)* driver and guide respectively. From Andranondehoke we visited several temporary camp sites in the territory of the mobile group led by Marakely, at Ampony and lakes Mafay, Magnafo and Betsiriry. We also explored the baobab forest to the east of Marolinta and travelled north up as far as Ihotry.

Returning to Vorehe, Jaovola and I made a further short journey into the heart of the Mikea Forest to the semi-permanent *(hatsake)* camps at Antsonobe and Ampanahira, this time accompanied by M. Tsiazonera, a historian from Toliara and Arlette Kouwenhoven, a journalist from Holland.

A total of two weeks were spent in the cities of Antananarivo and Toliara for meetings, logistics and determination of plant species at the Tsimbazaza herbarium.

Finally I was able to round off the trip with a (personally-funded) long weekend at Diego Suarez in the far north of Madagascar and have a look at the three other endemic baobab species.

Achievements

1. After much patience and diplomacy, we managed finally to meet and make the first outside contact with the elusive Marakely and his group, said to be the last Mikea to still follow a nomadic, hunter and gatherer lifestyle, full-time. This was very rewarding and helped us gain an insight into how things must have been before the deforestation and recent social upheavals within the forest began.

2. We found out a lot more about the traditional uses and significance of plants to the Mikea, by observation, interview, story-telling and forest walkabouts with traditional healers *(ombiasy)* and other experts. Honey collection and baobabs were this year's focus, although we also recorded data on over 50 medicinal plants. Only a few plant specimens were collected, mainly because it was the dry season. The photography turned out much better than the previous year, with several lessons learnt.

3. Determination and distribution mapping of the three baobab species occurring in the Mikea Forest was carried out with a GPS device, along with mapping of temporary camps and two sacred areas *(ala faly)*. The southernmost limit of naturally-occuring *Adansonia grandidieri (renala)* can now be identified with confidence to a previously unmapped area of forest to the east of Marolinta. The habitat differences and soil requirements for the three south-western baobabs are now a lot clearer, as are some of their ecological interactions and potential uses from the ethnobotanical research.

4. Working on a hunch from last year, and questioning various independent sources, we discovered that all the 'young' *renala* baobabs in Vorehe were in fact all seeded at the same time in the famine years of 1934-6, after a foray north to seek food by the starving villagers. We measured the girth of each one at one metre, and so now have a way of estimating the age of this species (- counting rings on a fallen baobab is impossible because of its sponginess!)

5. We held teaching sessions with the schoolchildren and teachers at Vorehe and Marolinta on the 7 species of Malagasy baobabs, and the importance of their conservation as 'keystone mutualist' species.

6. The Lutheran medical mission (SALFA) who run the clinic at Vorehe kindly gave us their data on TB patients, including patient numbers and origin. Sadly this shows that only two Mikea patients attended the clinic with TB in the previous six months, well below the number of cases with clinical TB I have personally seen in the forest.

Throughout our visits to Mikea camps we discussed the epidemic with the Mikea and tried to find out what their reasons were for not seeking help. As suspected, poor knowledge of the disease, combined with the unthinkable possibility of being confined for two months' intensive phase treatment in Vorehe and the fear of not being able to pay for it were top of their minds. Part of the problem is that the mobile TB team at Vorehe have so far failed to go into the forest and have concentrated their efforts in the villages to the east - cultural fears go both ways.

We continued our feedback to the TB team of which communities have chronic coughers, and made suggestions on how best to approach the Mikea and how to modify the TB programme to fit in with their lifestyle and culture.

Future plans

Projet Renala continues to evolve in direction, with the emphasis on **applied** ethnobotanical research to try and help improve the economy and health of the Mikea and to find effective ways to conserve what remains of their unique forest. The project is now listed as an appendix of the Royal Botanic Gardens, Kew's Research Accord with Madagascar, which is a great help to me when it comes to arranging permits.

My next trip to the Mikea Forest will be a short one, from 6th-26th February 1998, *i.e.* in the rainy season. This is partly to keep up contacts with the Marakely group, and partly to buy some *renala* baobab honey which is collected at this time. It is hoped that by paying a fair price for it, this will act as a disincentive to burn in the *renala* forest and provide an alternative source of income to the *hatsake.*

I plan to write up my baobab research in a paper this year and a magazine article on the Mikea.

Conclusion

The 1997 expedition was a success in many ways, particularly in providing a deeper social and cultural insight to the environmental problems of this part of the world. Most of the objectives were achieved, with some goals modified in the light of experience. Above all it was very interesting and great fun.

Acknowledgements

I am very grateful to the committees of the Davis Expedition Fund, the Carnegie Trust and the Conservation Foundation for the financial support that made this expedition possible, and to David Du Puy of RBG Kew for allowing me to use the Kew House in Tana. In Madagascar my special thanks are due this year to Albert Andrianjafy, Stan Quanbeck, Bernard Forgeau, Jaovola Tombo, Tsiazonera, Drs Roseline and Haja, Messrs Gervais, Benge, Mitiry, Marakely, Mboindry, Veve, Tantely, Bertrand Réau, Huw Crompton, Dominique & Jean-Paul Paddack.

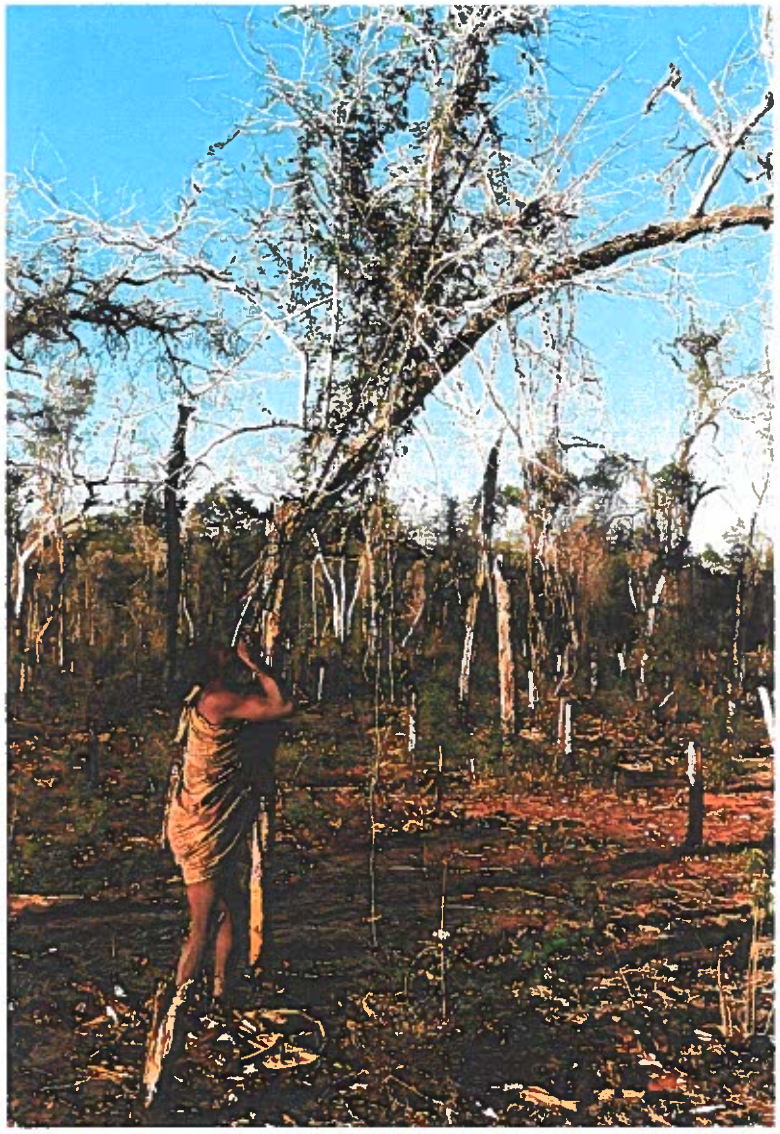
A.J.B. 1/98

Foraging for *baboho* roots –
a valuable source of moisture

Camp of a mobile Mikea group, *ny* Marakely

Tambotraka (tenrec) – a valuable source of protein for consumption or trade

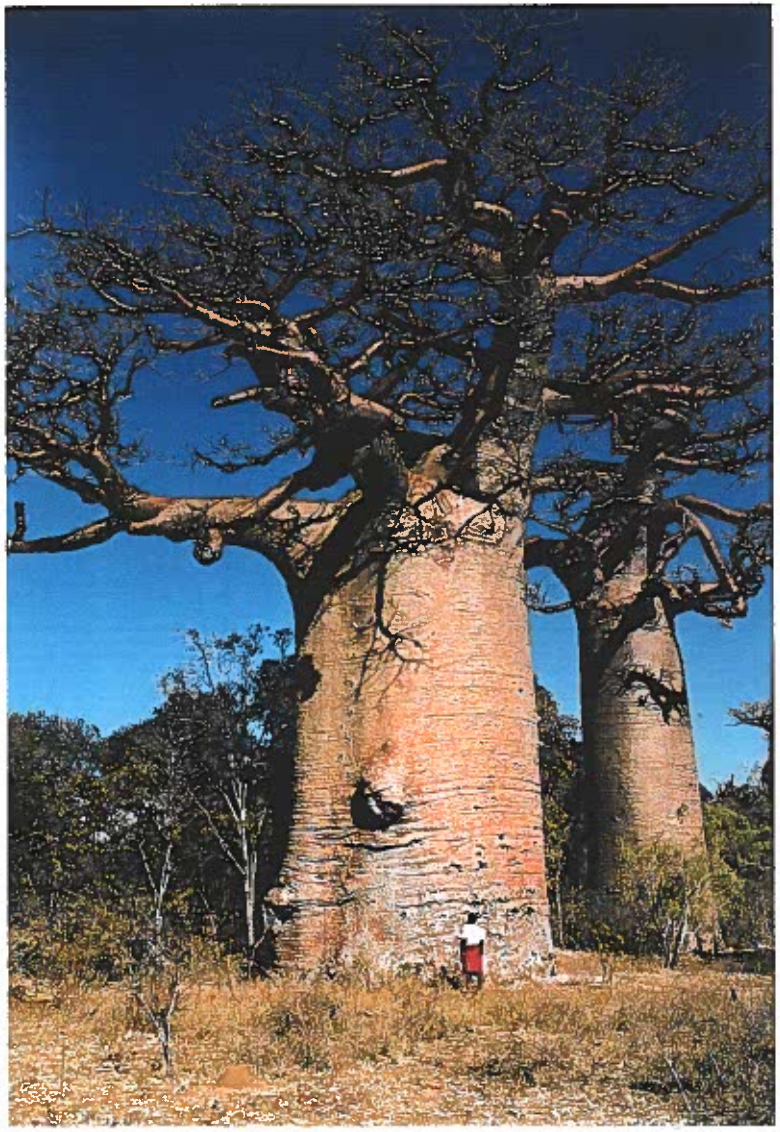
Tily (mouse-lemur), plus night-time shelter in the background



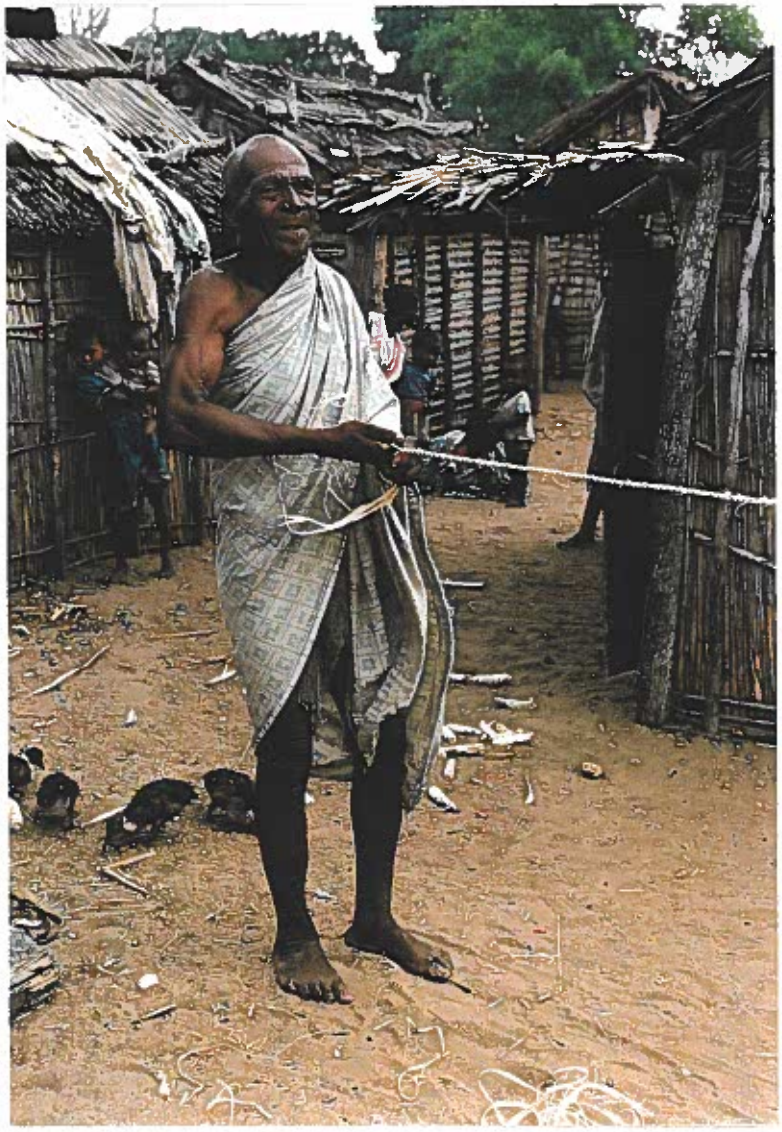
Blow-pipe *(porotse)* and arrow for hunting birds. Note the deforestation for the *hatsake*.

Night-time shelter

Roasting *tambotraka* for the childrens' supper



Renala be (Adansonia grandidieri)



Rope-making with *renala* bark