

## **The Mangoky Reserve** <https://mangokyreserve.com/>



Figure 1: View from the ruins of the *White House* down to the Mangoky River

### **1. The Mangoky Reserve at the shore of the Mangoky River** <https://mangokyreserve.com/mangoky/>

#### **1.1 Madagascar - unique nature - unique threats**

The most striking feature of Malagasy flora and fauna is the presence of an exceptionally high endemism. 96 % of the 4,220 tree-species are found nowhere else besides Madagascar, and an astonishing 98 % of Madagascar's land mammals are endemic. There are currently around 400 reptile species in Madagascar, of which more than 90 % are endemic. Madagascar is the home of nearly 100 lemur species you only find on this island. However, approximately 90 percent of all lemur species are threatened with extinction and of these, 23 are classified as critically endangered. The International Union for Conservation of Nature (IUCN) considers lemurs to be the world's most endangered mammals, noting that most species face extinction due to loss of habitats within the next 20 to 25 years unless trends change drastically. At least 17 species are already extinct.

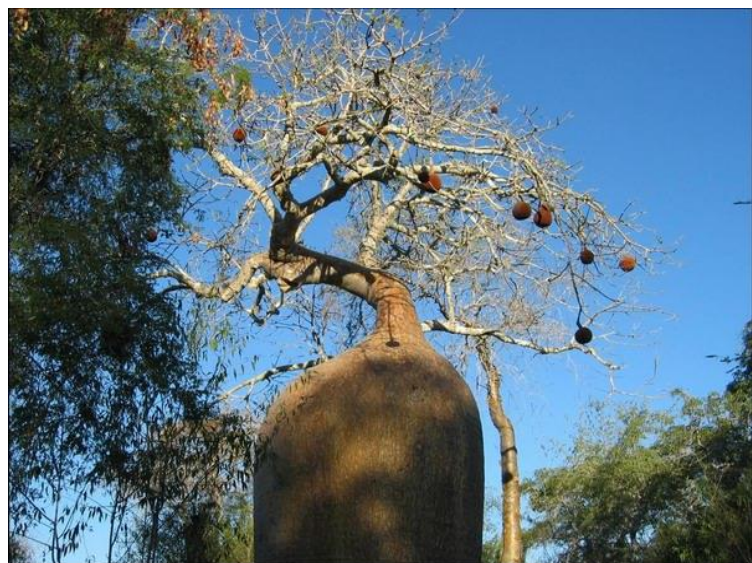


Figure 2: 6 of the world's 8 Baobab species are endemic to Madagascar



The future of this remarkable flora and fauna is far from secure. Massive and increasing environmental degradation has taken place during the last decades, and only a fragment of the island's original vegetation remains. Hundreds of species of plants and animals are threatened with extinction, and

nobody knows how many are extinct before having been "discovered".



Figure 3: The fringes of the forest. Where the forest is cut and burned, the soil is rapidly washed away, and the land is degraded. No new forest will come back

The main threat to the natural habitat and most serious ecological danger is the loss of the forest as a result of bush-fires, charcoal production, slash-and-burn agriculture and logging and mining activities. In addition, there is the destruction caused by animals, especially livestock - cattle, sheep and goats - which may, in combination with pastoral fires, lead to irreversible changes in the

eco-system and cause the extinction of endemic species. This massive destruction of the environment is a loss for all, and it threatens wealth and livelihood of the growing population in Madagascar.

## 1.2 The Mangoky River <https://mangokyreserve.com/mangoky/#mangoky-river>



Figure 4: The Mangoky river seen from the ruins of the *White House*

The Mangoky is the main river of the dry and hot Western lowlands. It is Madagascar's longest river, starting its journey in the central highlands near Fianarantsoa, descending between the Makay and Isalo mountain ranges, snaking through some of the country's remotest, most inaccessible forest areas before reaching the sea just north of Morombe.

The Mangoky flows through imposing ravines with huge baobab trees clinging to cliffs high above the water, and through the densest and most original deciduous dry forest that is left on the whole island. Along the river there are only a few villages in incredible isolation. For these communities the river is the lifeblood of communication and trade – no roads make their way to any of the central Mangoky's villages.

The wildlife in the forests is astonishing. Lemurs, fosas, endemic birds, flying foxes, many reptile species - the list goes on and on. In the river itself we find fish, tortoises and crocodiles.

The western dry forest on both sides of the Mangoky belongs to one of the last natural forests of the island. It is unique and highly endangered due to timber logging, slash and burn agriculture and pastoral fires. In spite of the remoteness of the area, hundreds of hectares of precious forest are irreversibly destroyed every year.

Still there is some untouched forest left along the Mangoky River, a hot spot for biological research and a sanctuary for Madagascar's unique biodiversity. This forest, together with the vast sand banks and the calmly flowing river have a huge potential for an environmental friendly tourism - for individualists who value the tropical sky over their heads more than comfortable hotel rooms.



Figure 5: Sifaka lemurs at dusk in the forest of the *Mangoky Reserve*

### 1.3 The Forest around the *White House* - a "frontier fort" for the preservation



Figure 6: The ruins of the *White House* (top right) on the southern shore of the Mangoky River - where the forest begins

The ruins of the *Trano Fotsy* "White House" or *Trano Kaky* "house with the tin roof" in Malagasy language, are the remnants of a couple of small houses from the colonial period. Little is known about their history and their purpose. Today only some walls of the former houses are left on the southern slope of the mountains descending steeply to the Mangoky River, and the whole area is overgrown with dense secondary forest. Still, you can imagine that it

must have been an amazing place with an astonishing view over the river to the mountains in the north covered by dense natural forest. The coordinates of the ruins of the *White House* are 21°48'38.06" South / 44°12'22.75" East.

The climate in the forest surrounding the ruins of the *White House* – the area of the *Mangoky Reserve* - is hot and dry with irregular heavy rains in the hottest time between December and March.





Figure 7: The *Magoky Reserve* around the ruins of the *White House* lies between Beroroha in the East and Morombe in the West on the southern shore of the Mangoky River. It marks the begining of a large forest and functions as a "frontier fort" for the conservation of the biggest forest in the Mangoky basin.

Whilst the ruins of a former residential building are situated on a hillock about 20 meters over the river; there is a flat area almost on river level where there may have been some vegetable gardening in old times. Still there are fragments of a well with water all the year round about 8 meters below the surface. The slopes down to the valley and the mountains southwards behind the house are covered



Figure 8: This forest is seriously threatened. Today it marks the beginning of a contiguous forest area, but the completely deforested and highly degraded area is only a few hundred meters away.

with natural forest. This forest contents a wide range of endemic tree species typical for the dry deciduous forest of the western lowlands, as well as animals like lemurs and flying foxes.

The *Mangoky Reserve* with the ruins of the *White House* is situated where the Mangoky River leaves the mountains and flows out to the wide plains in the West - about half way between Beroroha in the central western lowlands and the coastal town of Morombe. There is no road to the area, so the main access is by row or sail boat. The journey takes at least 2 days paddling

upstream from Ambika, a little village where the road number 9 from Toliara to Morombe reaches the river or floating 3 to 4 days downstream from Beroroha. The road from Toliara north to Ambika is now improved and can be driven in half a day. Over land, the area can be accessed by ox cart from Ambika to Vohitovo (6 – 7 hours) and from there about 3 hours on foot without marked trails.





Figure 9: Degraded forest area inside the *Mangoky Reserve* where all big trees are logged or burned.

The forest of the *Mangoky Reserve* marks the beginning of a contiguous forest area. As seen on the map (cf. Figure 7 and 10), deforestation is progressing rapidly from the west and south, and there are burned and degraded areas even inside the forest. Thus, the *Mangoky Reserve* is of utmost importance for protecting the last contiguous forest of the entire area. If this forest "falls", deforestation and environmental destruction will spread rapidly to the east into the largely un-

touched Mangoky basin. Protecting the forest around the *White House* makes it more likely that the entire forest can be preserved.

## 2. The *Mangoky Reserve* activities

### 2.1 Protection and conservation <https://mangokyreserve.com/mangoky/#protection>

The *Mangoky Reserve* is a non-profit environmental organisation initiated and led by Mr. Mparany Rakotondrainy; it is officially registered as an Association at the Malagasy government. The activities of this Association are financed exclusively with own funds and private donations. The main objective of all activities in the forest around the *White House* is the protection of this part of Madagascar. The motives behind are love and compassion to the Malagasy nature in general and to this unique area in Western Madagascar in particular. This part of Madagascar, its trees, animals and waters, shall be protected and serve as a sanctuary for all who want to see, hear and smell its beauty, and for all who are coming after us.

The fact that this forest marks the beginning of a larger contiguous wooded area, makes it to a focus area for conservation. Here we do have the chance to protect a much larger area, one of the most precious spots on this unique island. However, deforestation is accelerating also in this area, and the remaining forest corridor along



Figure 10: Deforestation and land degradation are accelerating and will soon reach the river banks as it has already happened further west

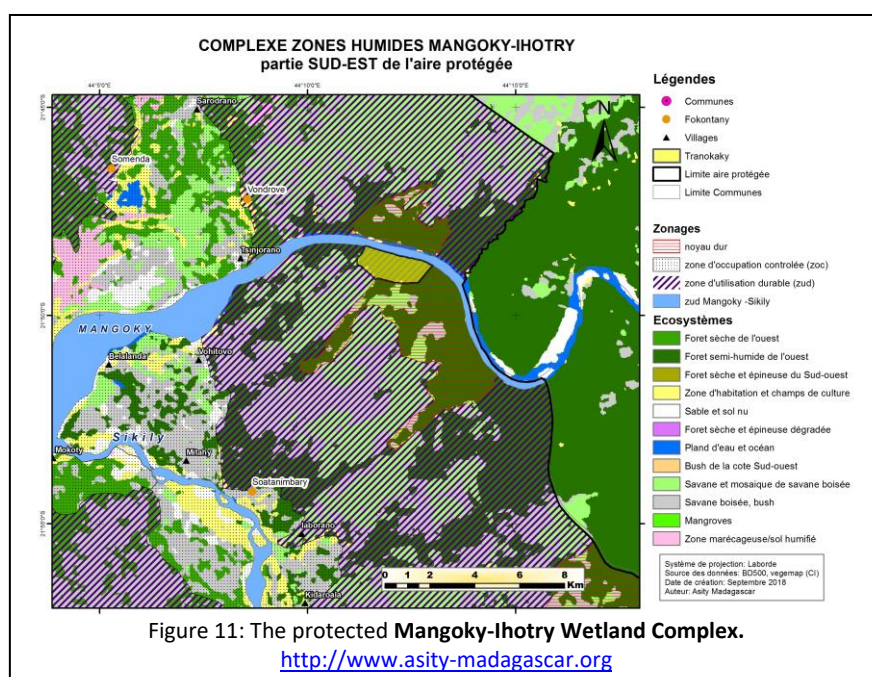
the river has shrunk to only about 1 km (cf. Figure 10). Urgent measures will be necessary in close understanding with governmental offices and environmental organisations.

In order to include the local population and making environmental protection work sustainable, small scale development support will supplement the work. (cf. 2.3).

The *Mangoky Reserve* is an excellent area for the accomplishment of natural and environmental research. For this some infrastructure will be necessary (cf. 2.4).

If possible, the area will be carefully opened to particularly interested visitors (cf. 2.5 and 2.6); this makes it necessary to provide some basic infrastructure such as a camp site, water supply and foot paths. There are no plans for building permanent accommodations, roads or other massive interventions in nature.

## 2.2 Cooperation with government offices and non-governmental organisations



The *Mangoky Reserve* is part of a larger protected area, the **Mangoky-Ihotry Wetland Complex**, located in South West Madagascar. In 2015, a total area of 426,146 ha has been placed under various degrees of protection. The complex consists of dry dense forests, thorny forests, lakes including Lake Ihotry and its surrounding lakes and mangroves with the Mangoky River Delta, and is managed by *Asity*, a

Malagasy Environmental Association. The Mission of *Asity* is improved understanding of the biodiversity of Madagascar and its conservation in natural ecosystems, and the promotion of its scientific, social, economic, cultural and ecological importance in Madagascar and world-wide (cf. <http://www.asity-madagascar.org>).

In July 2018 the Environmental Management and Development Plan (PAG - *Plan d'Amenagement et de Gestion*) of the **Mangoky-Ihotry Wetland Complex** has been changed, so that the *Mangoky Reserve* (here *Tranokaky*, marked yellow-green on the map in Figure 11) is entitled to carry out the protection activities of an area of around 250 ha primary forest (cf. Figure



Figure 12: Limits of the area where the *Mangoky Reserve* carrying out all protection and conservation measures (part of the *Tranokaky* area on Figure 11)



12). This means that the *Association Mangoky Resave* has the legal authorisation to implement protection activities such as fire gates and fencing of particularly vulnerable parts of the forest. Close and predictable cooperation with local, regional and national government offices as well as with *Asity* and the people in the villages around is an indispensable prerequisite for the success of the protection of the area.



Figure 13: Area for environmentally friendly development activities

A minor area including the ruins of the *White House* and the flat area close to the river, earlier used for agricultural activities, is designated as a development area administered by the *Mangoky Reserve* (Figure 13). This gives the legal security and predictability for necessary investments. In this area, a simple camp site will be established, and some of the ruins from the colonial period may be carefully restored.

## 2.3 Cooperating with the local community <https://mangokyreserve.com/engage/>



Figure 14: People from Voatovo, the closest village to the *Mangoky Reserve*, about 2 ½ hours on foot.

A crucial condition for a successful protection of any kind of natural resource is a close cooperation with the local communities. This cooperation makes it more likely that the area permanently can be preserved. It is important not only to convince the people that protection is important for all people, but to help them to get an advantage through the protection. A marginalised society at subsistence level will have little understanding for protection measures if they may suffer a loss,

e.g. when it is prohibited to take out natural resources from the forest. Only when the protection also creates some benefits, one may succeed to convince the local population for measures.

In August 2019, the *Mangoky Reserve* was officially inaugurated together with the leaders of the surrounding villages, a representative of the municipality of Ankatsakartsa and the local representative of *Asity*. The inauguration was committed as a traditional ceremony where an ox was slaughtered, and the meat distributed to the village people. The chief of the area blessed the forest and declared it *Ala Fady* – a “taboo forest”; herewith all destruction of this forest was declared unlawful according to the local customs, and transgressions may result in personal disadvantages. This amazing cooperation with the local leaders is of invaluable importance for all further protection work.



Figure 15: Slaughtering of an ox during the inauguration ceremony

The few settlements along the Mangoky and in the immediate vicinity of the *Mangoky Reserve* forest are extremely remote, with no road link and without any form of modern infrastructure such as electricity, water supply or communication media. The population lives on temporary subsistence agriculture, fishing in the river and gathering of natural resources in the forest. There is currently no school service for the children, no health care or any other public services.

To ensure the active participation of the local population, the following activities are planned:

**School construction.** The people of three villages around the *Mangoky Reserve*, Voatovo, Mitahy and Soatanimbary, have expressed the wish to get support for the construction of primary schools. The construction of school buildings with two classrooms each is therefore part of the preservation project and an important strategy for integrating local communities and arousing a deeper understanding of the conservation work.



Figure 16: The people of Mitahy, one of the surrounding villages, have on their own initiative started school construction. The *Mangoky Reserve* will provide them with cement and corrugated iron sheets.

**Equipping schools and environmental education.** To anchor the understanding and acceptance of environmental protection especially in the younger generation, is planned to support the environmental education in the newly constructed schools. This will be done by equipping the schools with appropriate books and materials and training of teachers.

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**Hiring local workers.** Another measure to involve the local community and to compensate possible loss of earnings due to strict conservation is hiring them for paid work tasks such as guarding and fire protection, to the degree as it will be necessary.

## 2.4 Infrastructural activities for enabling protection and research work

- **Protection fences and fire gates at particularly critical areas.** The contiguous forest area is severely threatened by timber logging and particularly by burning. Protecting the remaining forest through fire gates, fences and guards will be the main tasks of the project. Cooperation from the side of the local community will be crucial. It is not intended to close the area for all local traffic, but closures of sensitive areas and in particularly vulnerable parts may be necessary.





Figure 17: Restoring the well. Here may have been some agricultural activities during the colonial period

- **Infrastructural investment.** For making the area accessible, simple infrastructural measures may be necessary such as clearing of foot paths through the forest. No road building is intended as there are no plans of bringing motor vehicles to the area

- **Utility supply.** For enabling a longer stay in the area, an old well is restored and small solar panels will be installed in order to provide drinking water and basic electric supply.

- **Reconstruction of minor stores and shelters.** Close to the former cultivated area, we can still find ruins of small store houses made of concrete. One of these houses will be renovated serving as store for tools and materials, and as a shelter for simple infrastructural technique such as batteries for solar power.
- **Restoring of the *White House*.** In order to get the possibility for doing long term research and administration of the area, a simple accommodation will be necessary. The ruins of the *White House* could be restored in a careful and environmentally friendly way. Here researchers and administrators could live safely on low comfort for some time.
- **Access to the area.** Since there is no road connection, the only access to the *Mangoky Reserve* is by boat on the Mangoky River during the time when there is enough water in the river (January - August). There is no organised boat traffic on the river. The construction of a boat launch for small boats may be necessary.



Figure 18: The ruins of the *White House* on the southern slope over the Mangoky River

## 2.5 Volunteers welcome <https://mangokyreserve.com/engage/#volunteer>

People from all over the world who love nature and adventure, who are not afraid to use their hands and their brains and have the necessary physical and mental strength are welcome to visit the area for contributing with their knowledge and their labour to develop the *Mangoky Reserve*. All who are interested to contribute to the protection of this unique place and want to use a period of their lives to do some voluntary work are encouraged to contact the association *Mangoky Reserve*.

## 2.6 Welcoming visitors <https://mangokyreserve.com/adventure/>



Figure 19. This flat area close to the river bed is suitable for establishing a simple camp site,

The forests around the *White House* have a enormous touristic potential prevented by the complete lack of touristic infrastructure. The *Mangoky Reserve* does not have any plans for major touristic investments or massive interventions in nature. However, in case some people would like to visit the area for watching the unique nature, or step by on rafting trips down the Mangoky River, they are welcome in the *Reserve*. For enabling their night stay, some measures may be necessary.

**Simple camp ground.** The flat area close to the river bed where there may have been some small-scale farming in older times will be cleared and used as a basic camp site in the middle of the wilderness. Through this no primary vegetation would be destroyed. By concentrating the visitors at one point, more sensitive areas would be saved, and a disturbance of the hitherto untouched nature would be avoided. This spot lies close to the river with easy accessibility, provides a maximum of safety and is the central starting point for hikes in the forest and for boat trips for other interesting spots along the river

**Supply of drinking water and electricity.** As mentioned above, a well restored and the installation of some solar panels are planned. The provision of drinking water and basic electric supply would also benefit the visitors.

**Trails and viewpoints for hikers.** Trails through the dense natural forests will have to be marked for enabling conservation, monitoring and research work. These trails can be extended to some viewpoints, bird watching spots or other points of interest for giving the visitors the chance to come into close contact with the nature of the area. Through the marking of trails, uncontrolled hiking in the forest which could lead to damage would be avoided as leaving the paths would be prohibited.

**Catering.** Since there is no possibility for self-supply in the area, the *Mangoky Reserve* will have to provide food items and beverage for the visitors. No restaurant activities are intended, but people



from the surrounding villages will be hired for the preparation of local food. The visitors may also be given the possibility to buy local food items for self-catering.

## 2.7. Tourism Activities <https://mangokyreserve.com/adventure/#kayak-tours>

**Boat tours down the Mangoky River.** The Mangoky basin from Beroroha in the East to Ambika in the West where the road number 9 meets the river, is only accessible by boat. A 5-6 days trip on the Mangoky River is a unique experience in an area cut off from all modern civilisation. From 2020, The *Mangoky Reserve* plans to organise guided kayak tours on this about 160 km long part of the river, a unique opportunity you will not find any other place in Madagascar. This tour requires quite some endurance and the readiness to live a very basic life for some days but compensates generously through



Figure 20: Catamarans built of two wooden boats tied together are the traditional vehicles of the local people. These catamarans will also be used for the transportation of visitors.

the unique possibility to dive into a nature and culture far from what is known from other parts of the world. The *White House* area with its camp site, marked trails into the forest and basic food and beverage supply will function as a recreation area halfway on the journey.

**Boat trips to the *Mangoky Reserve*.** Journeys on local boats upstream from Ambika can be organised by the *Mangoky Reserve* between January and August, when the river carries enough water. The trips can take several days - with tent mounts on sandbanks on the way.



Figure 21: Long trips on ox cars require some fitness – not only from the oxen!!

**Tours with ox carts and on foot.** Apart from sailing on the river, the forest around the *White House* can be reached by ox cart to the village of Vohitovo, and from there continuing on foot. The tour takes almost two days and requires good physical condition. The *Mangoky Reserve* organises this tour in cooperation with local farmers. Through this visitors will come into close contact with the local community and participate in their way of living.

**Tours through the forest on marked trails.** The main activity of the visitors will be individual foot tours through the unique nature of the area. According to their interest, the visitors may learn about the numerous endemic trees and plants or watch the characteristic bird and lemur species of the area. The visitors will be provided with maps and materials where the characteristic plants and animals are described but are otherwise left to themselves and their own pace and interests.

**Just being there!** The *Mangoky Reserve* invites you to switch off and be just yourself for a few days, one with the nature around you and without the opportunities and constraints of civilization. It can be a unique experience sitting by the riverside for hours without any disturbance, following the

course of the sun, listening to the birds and lemurs in the forest and occasionally taking a bath in the river - unless you are afraid of crocodiles.

**Round tours with local river boats.** Shorter tours on local boats in the closer vicinity of the *Mangoky Reserve* as well as longer tours to points of interest along the river with night camps on sand banks can be organised. The highlights of these tours will be the observation of various lemur species in the gallery forests along the river

**Visits of local villages.** The *Mangoky Reserve* supports the local development through building and equipping of schools. Trips to the villages where the schools are built can be organised in understanding with the local communities. Traditional food prepared by the village people may be served.

Common for all these activities is the close cooperation with the local population. Through renting out boats and ox carts, preparing food, serving as guides, guards and co-workers for infrastructural activities, they shall benefit from inviting visitors to the forest of the *Mangoky Reserve*. This will be crucial for motivating them to cooperate with us in protecting the area and will open their eyes for the possibilities of a sustainable and environmentally friendly management of their resources.

### **3. Summary**

The *Mangoky Reserve* is a governmental registered private non-profit association and will be financed with own funds and private donations. The main objective of the association is the protection of the forest around the *White House*. Mandatory conditions for a successful accomplishment of the conservation and protection activities are reliable legal agreements, a close cooperation with governmental offices and other environmental associations and particularly with the local people in the surrounding villages.

Additional to the environmental protection activities, the project contributes to educational development through school construction and training of the local teaches and communities.

The area has a considerable touristic potential, but careless investment would do harm to the environment as well as to the local communities. However, people who love adventure in an exciting nature and want to contribute to the protection of this threatened environment are welcome. The *Mangoky Reserve* has plans to organise some environment friendly tourism activities. The active involvement of the local communities contributes to mutual understanding and to the building of a positive attitude towards their natural environment.

Facilities for biological researchers may be prepared, and volunteers from Madagascar and abroad are invited to learn about the unique nature of the area and to actively support the conservation activities during their visits.

The *Mangoky Reserve* combines environmental protection, local development, exchange and experience sharing. Any kind of contribution and support - either in labour (volunteers), in kind (donation of materials), financially or organisationally, is welcome and highly appreciated!

#### **Names and email addresses:**

Mr. Mparany Rakotondrainy, initiator and leader of the *Mangoky Reserve Association*  
[famrakotondrainy@gmail.com](mailto:famrakotondrainy@gmail.com)

Klaus-Christian Küspert, member of the *Mangoky Reserve Association*  
[klaus.christian.kuspert@gmail.com](mailto:klaus.christian.kuspert@gmail.com)