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## **Conserving the endemic tortoises of the spiny forest ecoregion of Madagascar:**

**WWF's past experience and its way to move forward**

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### **Spider and radiated tortoises as flagships**

*Astrochelys radiata* and *Pyxis arachnoïdes* are among the four endemic terrestrial tortoise species of Madagascar. They are only seen in the spiny forests of the southern and southwestern region of the island, stretching from south of the River Mangoky in the west to the western slopes of the Anosy montane in the east. This ecological region exhibits the harshest climatic pattern in Madagascar with a rainfall that is as low as 200 mm in average and is prone to recurrent drought. The communities living there are among the most vulnerable in the country. The ranges of these endemic tortoises are overlapping in most of their extent and they cover sizeable parts of the spiny forest area. Both are classified as critically endangered according to the IUCN Red list (2009) and are among the 40 most threatened species in the world.

### **Threats to the survival of endemic tortoises**

Radiated and spider tortoises are both collected for bushmeat or pet. Radiated tortoise meat is a delicacy for *Vezo*, *Antanosy* and people from the High-Plateau during special events such as Christmas, Easter and Independence Day. A recent survey among 30 communities in the southwestern part of the ecoregion shows that the epicenter of the traffic is the coastal area of Itampolo-Androka. Tortoises collected from the Mahafaly Plateau are sent to the main meat markets such as Toliary, Fotadrevo, Lazarivo and Taolagnaro. No less than 10 zebu carts filled with tortoises transit across the Mahafaly Plateau every week. The sea route is mainly operated by *Vezo* people while inland routes are managed by members of the *Antanosy* community. People from all ages (6 to 60 years old) are involved and the size of each group can reach 90 people. Moreover, many traffickers are now armed and very dangerous. Tortoises' habitats also have seen the highest deforestation rates in the past 20 years, ranging from 1.2% from 1999 to 2000, up to 2.52 to 3.94 % / year in some regions in 2000-2005<sup>1</sup>. The main driver behind this loss is slash-and-burn practices, bush fires and charcoal production to supply Toliara and Taolagnaro markets.

### **WWF's past experiences on tortoises protection**

WWF's work on tortoises, especially radiated tortoises started back in 1999 and they have focused on both fronts: preventive and repressive. On the preventive side, from 2000 through 2007, deforestation rates in WWF's intervention areas within the Mahafaly plateau - one of the main remaining havens for tortoises - decreased by 27%<sup>2</sup>. Many community-based associations ban tortoises harvesting from their territories by imposing penalties as high as 50,000 Ar<sup>3</sup> (about USD 25) for each seized tortoise. A network of 15 rural radios spanning across the ecoregion as well as 4 theater groups were established to raise awareness on

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<sup>1</sup> Madagascar – Changement de la couverture des forêts naturelles. Circa 1999 – 2000 – 2005. Poster développé par Conservation International, en collaboration avec le Ministère de l'Environnement et des Forêt, Ecole Supérieure des Sciences Agronomiques - Forêt, Office National de l'Environnement, avec le financement de l'USAID.

<sup>2</sup> WWF Annual report, 2007

<sup>3</sup> AICPM local convention (*Dina*): Association Intercommunale pour la Conservation du Plateau Mahafaly



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conservation and development issues as well as to allow community members and focus groups to have their say in those issues. Most of these are still operational to date. On the repressive side, thanks to joint operations with gendarmes, environmental authorities and Madagascar National Parks, 7,855 live tortoises and more than 4.8 tons of meat have been seized between 2001 and 2010. These represent 1.3 to 2.1 % of the estimated 600,000 tortoises collected from the ecoregion during that period (based on 60,000/year<sup>4</sup>). Records of dossiers on tortoises during that period at the Tribunal of Ampanihy, show that 15 cases have been prosecuted involving 4,646 tortoises. Traffickers got jail terms between 5 to 24 months and fines between 0 to 10.8 million Ar (about USD 5,000). It is estimated that only 5% of all dossiers on tortoises are treated by tribunals as the MEF does not follow up on tortoise dossiers, leaving many untreated cases and unrecovered penalties.

These experiences have been marked by many constraints: leaks of information before control and seizure campaigns that jeopardized many of them from the start, corruption among gendarmes and environmental authorities, some gendarmes and other officials are themselves consumers of tortoises, communities were discouraged following the release of many traffickers they help arrest because of procedural flaws (some might be linked to corruption too). But the main constraints that hindered long term impacts are the lack of specific and sustained funding for tortoises protection initiatives as most of them are project-based.

#### **WWF's next priority actions**

In its new 5 year conservation plan, WWF set as objective a significant reduction of tortoises harvesting in its two priority conservation landscapes: Mahafaly Plateau and Pk32 Ranobe. For this, a tortoise action plan has been developed and we have identified the following elements as the immediate priority for 2011 and 2012:

- Establish an information network along the trade chain and between actors (communities, gendarmes, justice etc ) to ensure a better tracking and follow up on controls, seizures, arrests and prosecutions;
- Set up and implement incentive schemes to encourage organized communities to continue in the monitoring of and intelligence sharing on illegal collecting;
- Enhance development initiatives in collaboration with development specialists (CARE, UNDP, WFP etc) especially in promoting alternatives to tortoises meat;
- Call for a better involvement of and support from the nascent environmental civil society in tortoises trade monitoring and prosecution. Through the civil society associations we plan to support MEF in all legal cases on tortoises to ensure the prosecutions succeed and to secure the penalties for conservation;
- Foster partnership with TRAFFIC, UNEP-WCMC and TSA on the monitoring of international trade;
- Enhance awareness raising and induce social behavior changes on tortoises conservation using social marketing tools;
- Seek innovative funding mechanisms for tortoises conservation using twinning, sponsorship by school children from western countries

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<sup>4</sup> PHVA, 2005