

Preserving fragile ecosystems through a community-based fire management programme in NW Madagascar.

Travis Steffens,  
Planet Madagascar  
[www.planetmadagascar.org](http://www.planetmadagascar.org)  
[travis@planetmadagascar.org](mailto:travis@planetmadagascar.org)

Awarded a PSGB Conservation Grant in 2016

Habitat loss due to fire is devastating for lemur species, of which 94% are threatened with extinction. In 2015, Planet Madagascar initiated a fire management programme in remote communities in NW Madagascar. We have completed a second year of fire management through the support of PSGB. We continued to engage existing fire teams to monitor the forest throughout the wet and dry season and to create fire breaks to buffer forest from fire. We combined these practical measures with educational outreach. By protecting forest our project directly benefited eight species of lemur, of which five are endangered or critically endangered.

This project was supported by funding from the Critical Ecosystems Partnership Fund, Primate Conservation Inc. and private donations. We conducted all of our conservation activities in Ankarafantsika National Park, NW Madagascar near three communities, Ambarindahy, Maevatanimbary and Andranohobaka.

### Patrols and Firebreaks:

Between January 1<sup>st</sup> and December 31<sup>st</sup> 2016, we conducted approximately 220 patrols, employing a total of 18 residents from three local communities in a fire management zone called Ambanjabe. Patroller's observed the presence of three lemur species during patrols (*Propithecus coquereli*, *Eulemur fulvus*, and *Eulemur mongoz*). Patrollers only patrol during the day so they have not observed any nocturnal species during patrols. We found that patrols and firebreaks reduced the number of disturbances between years (Table 1). There were reduced rates of encounters of fire, burnt areas, cooking areas, traps and cut trees between 2015 and 2016. However, we noticed an increase in the number of clearings observed between 2015 and 2016.

Table 1 Human Disturbance within Ambanjabe Between 2015/2016

	2015 Total (n=90)	2015 Rate	2016 Total (n= 220)	2016 Rate
Fires	2	0.02	4	0.02
Burnt Areas	23	0.26	24	0.10
Cooking Areas	3	0.03	0	0.00
Traps	8	0.09	8	0.03
Cut Trees	17	0.19	14	0.06
Clearings	0	0.00	2	0.01

n is number of patrols in each year

We conducted two mixed patrols in partnership with Madagascar National Parks and the military. During mixed patrols, the military arrested 11 people for illegal harvesting of lianas and they confiscated 15 planks of rosewood, though the culprits were not detained.

We cut a total of 6.6 km of firebreak along the southern edge of the landscape (Figures 1 and 2). Along the 6.6 km of firebreak, we placed two signs announcing the creation of the firebreak to inform potential users of the area that these breaks were intentionally created to help prevent fire from destroying the forest.

### Education programme:

Planet Madagascar carried out a day of responsible fire education with 117 participants on December 13<sup>th</sup> 2016 in Ambarindahy village with the collaboration of Ankarafantsika National Park. We invited the relevant local authorities of the target audience including the villagers of the fokontany of Ambarindahy (the village of Ambarindahy, the village of Maevatanimbary and the village of Andranohobaka), the villagers of the Andranomangatsiaka fokontany, the fokontany of Antsiasesy, those of Bekalila, those of Bevary and of Marosakoa Kely. Following a stakeholder meeting, we carried out our activities aiming to inform people about the consequences of poor fire management, to educate them on the adoption of appropriate behaviours, and to train them to use waterbags to put out fire.

### Conclusion:

We found our project improved the protection of the 357 ha of fragmented forest and the 4000 ha of continuous forest within our protection zone. The combination of patrols, mixed patrols and firebreaks provide good protection of forests while employing local residents in conservation related activities. By further engaging communities through our responsible fire education day we hope to increase the effectiveness of our fire management programme within Ambanjabe.

Figure 1: Project Area, showing firebreak and villages

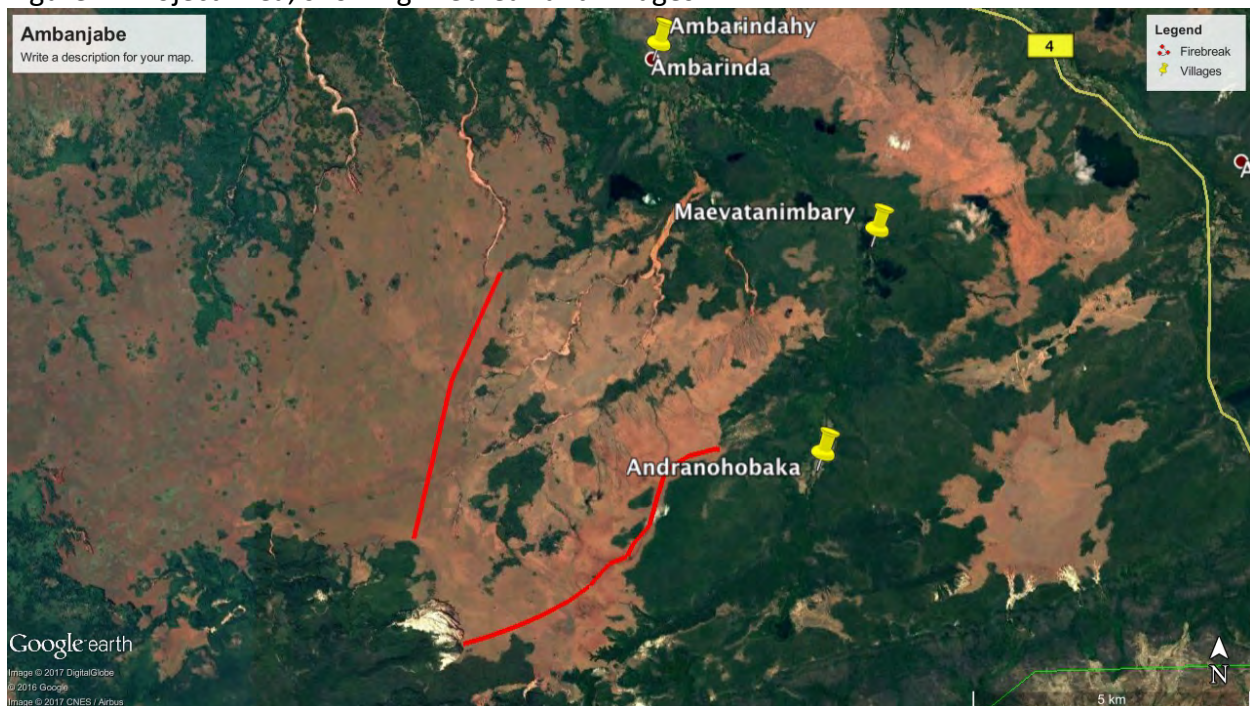


Figure 2: Making a firebreak that will serve as protection against fires in the savannah hitting the forest

