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Appendix 1. Questionnaire guide used during the oral interview.

Table S1. Equations for the estimation of each dendrometric factor

Dendrometric factors	Unit	Formula	Details and notes
Density	ind/ha	$D = N/S$	N = number of twigs in each small square in one plot; S = total surface of small squares in ha
Basal area	(m <sup>2</sup> /ha)	$G = [d^2(\pi/4)]/A$	d = Diameter at Breast Height (dbh) in cm at 1.3m; A = area
Biovolume	cm <sup>3</sup>	$[(d^2*22/7*h)*0.546]$	h: height at the first branch; 0.546 = form factor of the tree
Biomass	kg	$21.297-6.953 (d)+0.74(d^2)$	regression equations for tropical trees in wet climatic zones (Brown 1997)
Carbon Stock	kg	$Biomass*(47.5/100)$	47,5% concentration of carbon in wood, chosen as constant (Mugnier et al. 2009)
Equivalent in CO <sub>2</sub>	kg	$3.67*C$	(Mugnier et al. 2009)

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Table S2. List of the most useful species from Agnalavelo sacred forest.

Family	Scientific name	Local name	Voucher #	Use category	Use description
Anacardiaceae	<i>Spondias tefyi</i> J.D. Mitch., Daly & Randrian.	Sakoambanditsy	RKN 377	Medicinal	Drink decoction of bark to treat diarrhoea
				Utensils and Tools	Bark use for rope
Annonaceae	<i>Artabotrys madagascariensis</i> Miq.	Andriamaninto	TAB 330	Cultural	Drink and take a bath with decoction of leafy twigs or leaves to achieve success in every activities
					Lick the powder of stem for charm
Arecaceae	<i>Ravenea cf sambiranensis</i> Jum. & H. Perrier	Faleaka	RBU 18735, RBU 18793	Medicinal	Drink decoction of leaves to treat malaria
Asteraceae	<i>Emilia humifusa</i> DC.	Angea	RKN 400	Medicinal	Drink decoction of leaves and whole plants to treat colic and diarrhoea
					Use decoction of leaves to cure wound
Cannabaceae	<i>Celtis gomphophylla</i> Baker	Malimatsy	TAB 407	Medicinal	Drink decoction of leaves to treat colic and diarrhoea
Dioscoreaceae	<i>Dioscorea soso</i> Jum. & H. Perrier	Sosa		Food	Tuber use as food for human
	<i>Dioscorea ovinala</i> Baker	Ovinala		Food	Tuber use as food for human
Euphorbiaceae	<i>Argomuelleria</i> Pax		TAB 431, TAB 322, TAB 391	Services and Goods	Nutrients for bees
Euphorbiaceae	<i>Euphorbia mandravioky</i> Leandri	Vontabola	TAB 381	Services and Goods	Trunk used as hive for bees
				Cultural	Latex used as trap birds
Fabaceae	<i>Albizia tulearensis</i> R. Vig.	Mendoravy, Beravy	TAB 561	Cultural	Trunk used for coffin
				Construction	Trunk used as timber for house construction
	<i>Bauhinia decandra</i> Du Puy & R. Rabev.	Bagnaky	RA 1231, RKN 388	Medicinal	Drink decoction of leaves to treat yellow fever
				Utensils and Tools	Drink decoction of leaves to treat colic
Fabaceae	<i>Bauhinia decandra</i> Du Puy & R. Rabev	Bagnaky	RA 1231, RKN 388	Cultural	Bark to use to protect bad from weather
	<i>Dalbergia purpurascens</i> Baill.	Manary	TAB 299, RZA 1065	Medicinal	Drink maceration of bark to treat colic
Fabaceae	<i>Dalbergia purpurascens</i> Baill.	Manary	TAB 299, RZA 1065	Fuel	Trunk use for firewood
				Construction	Branch and Trunk use for house (pillar) construction
				Utensils and Tools	Branch and Trunk use for pestle and mortar
				Environmental	Trunk use for fences of zebus

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Family	Scientific name	Local name	Voucher #	Use category	Use description
	<i>Viguieranthus ambongensis</i> (R. Vig.) Villiers	Havoha	TAB 366	Construction	Trunk use as timber for house construction
Lamiaceae	<i>Vitex lanigera</i> Schauer	Malainarety	TAB338, RKN 375, ATH 1466, RA 1235	Medicinal	Drink decoction of leaves to treat gonorrhoea, colic, late closure of infant fontanel, to give appetite for child and to give appetite after diarrhoea
				Services and Goods	Trunk used as hive for bees
				Construction	Trunk for house construction (Pillar, wall)
Lauraceae	<i>Ocotea trichantha</i> Baker	Manojeja - Maroanaky	TAB 339, ATH 1508	Medicinal	Chewing the stem to cure headache
				Services and goods	Trunk used as hive for bees
				Cultural	Put powder of the stem in necklace and talisman to promote fertility, to achieve success in farming activities, to protect against bad sorcery, to hunt bad spirit and use it as disenchant
Loganiaceae	<i>Strychnos henningsii</i> Gilg	Tsivoanandrofito	TAB 363, TAB 477	Medicinal	Drink decoction or maceration of stem, leafy twigs, leaves to treat colic, bilharzias
					Drink and make an inhalation with decoction of roots to treat headache
Loganiaceae	<i>Strychnos henningsii</i> Gilg	Tsivoanandrofito	TAB 363, TAB 477	Medicinal	Drink infusion of stem powder to treat colic and stomachache
				Cultural	Use powder of the stem in talisman to protect against bad sorcery, ruffle bullet during bandit attack and use as disenchant
Malvaceae	<i>Adansonia za</i> Baill.	Zà	MNH 265	Food	Fruit use as food for human
				Utensils and tools	Bark use for rope
Moraceae	<i>Ficus tiliifolia</i> Baker	Nonoky	TAB 395	Cultural	Bark used as clothing on the past
				Forage	Fruit as alimentation for zebu
Myrtaceae	<i>Syzygium sakalavarum</i> (H. Perrier) Labat & G.E. Schatz	Rotsy, Rotsinala	RKN 399	Food	Fruit use as food for human
				Cultural	Trunk used as wood for coffin
				Environmental	Branch and trunk use for fences of zebus
Phyllanthaceae	<i>Wielandia bojeriana</i> (Baill.) Petra Hoffm. & McPherson	Tsifolaboay	TAB 332, ATH 1660, ATH 1665, RA 1390	Construction	Trunk use for house (round wood) construction
	<i>Wielandia elegans</i> Baill.	Savonihazo	TAB 387	Utensils and Tools	Trunk use for pestle and tool handle
Piperaceae	<i>Piper</i> L.	Vahimahavany	ATH 1669	Cultural	Leaves used for soap on the past
				Cultural	Use powder of the stem in talisman to protect zebu and production

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Family	Scientific name	Local name	Voucher #	Use category	Use description
				Medicinal	Smoke the twigs for stimulant and aphrodisiac Use decoction of roots as inhalation for back pain
Polypodiaceae	<i>Drynaria willdenowii</i> (Bory) T. Moore	Ahaky	Rasolohery 38	Medicinal	Rhizome reduced in powder use for prenatal care
				Cultural	Leaves and rhizome transformed into powder used as protection against lightning, bad sorcery and achieve success in farming activities
Rhamnaceae	<i>Gouania pannigera</i> Tul.	Masikarà	ATH 1656	Medicinal	Drink decoction of leaves and leafy twigs to treat colic and diarrhoea Use cataplasm of leaves to treat strain
Rutaceae	<i>Vepris boiviniana</i> (Baill.) Mziray	Soazanahary	TAB 466	Cultural	Drink and have external bath with infusion of plants stem to achieve success in farming activities Use stem powder in a necklace for charm Use powder of the stem in necklace or talisman to promote fertility, to achieve success in farming activities and to protect against bad sorcery
				Cultural	Use stem powder in a necklace for charm Use powder of the stem in necklace or talisman to promote fertility, to achieve success in farming activities and to protect against bad sorcery
					Use powder of the stem in necklace or talisman to promote fertility, to achieve success in farming activities and to protect against bad sorcery
	<i>Vepris unifoliolata</i> (Baill.) Labat, M. Pignal & O. Pascal	Ampoly	TAB 329, TAB 426	Medicinal	Drink decoction of leaves or leafy twigs to treat colic and post-partum haemorrhage
	<i>Toddalia asiatica</i> (L.) Lam.	Mangerivoriky	TAB 336, TAB400	Medicinal	Drink decoction of leaves to promote expulsion of intestinal gasses Drink root decoction to treat pulmonary infection. Make an inhalation with root decoction to treat cough, cold and flu Drink infusion made by powder of the stem to treat colic, stomachache and dizziness during pregnancy Use powder of stem in poultice as antiseptic

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Family	Scientific name	Local name	Voucher #	Use category	Use description
				Cultural	Stem transformed into powder use in talisman for protection, charm disenchant and to achieve success
Rutaceae	<i>Zanthoxylum tsihanimposa</i> H. Perrier	Monongo	TAB 408, RZA 1120	Medicinal	Bark transformed into powder is used to treat the infestation of head lice.
Rutaceae	<i>Zanthoxylum tsihanimposa</i> H. Perrier	Monongo	TAB 408, RZA 1120	Cultural	Drink decoction of leafy twigs to treat infant fever
				Construction	Drink decoction of leafy twigs for post partum care and uterus recovery
					Trunk for the fabrication of little guitar locally known as "Marovany" and "Mandoliny"
					Trunk for manufacturing board and furniture
Violaceae	<i>Rinorea greveana</i> Baill.	Papolahy	TAB 219	Medicinal	Drink decoction of leaves and leafy twigs to treat late closure of baby's fontanel.
					Drink and take a bath with the decoction of leaves and leafy twigs to treat twisting, strain, infant epilepsy and for postpartum care
					Use poultice from roots and stem transformed into powder to treat twisting, strain
				Cultural	Put powder of the stem in talisman for charm
				Services and Goods	Trunk used as hive for bees
				Construction	Trunk for house construction, door and furniture manufacturing

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Figure S1. A: Cut *Magnary* for coffin in Agnalavelo forest (photo by Tabita N. Randrianarivony); B: coffin made by *Magnary* (photo by Tefy H. Andriamihajarivo)

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Figure S2. Wood illegally collected for house construction in Agnalavelo forest. (photo by Tabita N. Randrianarivony)

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Figure S3. Dead body of a lemur in the forest. (photo by Tefy H. Andriamihajarivo)



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Figure S4. Tree as beehive with honey in the Agnalavelo forest. (photo by Tabita N. Randrianarivony)