















1. Overview List of sources p. 10

The project 'Kafeala Forest Bendambo' is restoring the first native forest in the 7'593 km² Ankazobe District ⁽¹⁾ in Madagascar. Together with the local community, a 15-hectare forest with 390'000 indigenous trees and shrubs is being created in the village of Fihaonana. The forest is legally owned by CHANGING and provides a safe habitat for over 150 regionally to globally threatened, even regionally autochthonous plant species and numerous native wildlife species. The forest Bendambo will provide more than 22 long-term jobs and will be self-sustaining by 2032 through the production of coffee, forest honey and wild pepper.

General information	
Project executor	Non-profit nature conservation and development organisation CHANGING
Project Name	 'Kafeala': Malagasy for 'forest coffee' or 'wild coffee' 'Bendambo': Malagasy for 'place with many wild boars' (historical name of the property)
Organisation headquarters	 Switzerland: CHANGING, Sackweidhöhe 4, 6012 Obernau Madagascar: CHANGING, Fiadanana, Commune Fihaonana, 108 Ankazobe
Project location	Village community of Fihaonana, 50 km north of Madagascar's capital Antananarivo

Impact logic (summary)	
Core problem	The native forests of Ankazobe District in Madagascar, with their unique biodiversity, are under existential threat - only two forests remain, covering 0.24% of the district's area.
Outputs	Forest restoration, forest protection as well as involvement and empowerment of village communities
Schedule	 01.08.2023 - 28.02.2027: this project 01.08.2023 - 31.12.2026: growing trees and shrubs in the nursery 01.01.2025 - 30.11.2025: acquiring and preparing the property 01.03.2025 - 28.02.2027: planting native trees and shrubs 01.12.2026 - 31.12.2026: planting coffee shrubs From 2026: awareness-raising campaigns in Fihaonana and surrounding villages 01.03.2027 - 31.12.2031: Financing of coffee and forest honey production and rangers' salaries during this period through a separate project From 2032: Financing forest protection through coffee and forest honey
Central impact goal (impact level)	Kafeala contributes to the restoration of resilient forest ecosystems, the propagation of threatened plant and animal species, poverty alleviation and nature conservation awareness in Ankazobe District, particularly in the village community of Fihaonana.

Finances	
Financing	Donations from institutions (primarily foundations) and individuals
Budget	CHF 195'000, of which 92% for the project, plus 8% for fundraising and administration
Donations received	CHF 92'533 (as at 30 th of June 2025)

2. Problems

2.1 Throughout Madagascar

79'800 ha

of original forests were lost in 2023 alone. (2)

89 %

of the plant species are endemic and do not exist anywhere else in the world. (3)

80.7 %

of the population live below the international poverty line of USD 2.15 per capita per day. (4)

2.2 In Madagascar's Ankazobe District

2.2.1 Geography and History

Ankazobe is a district in the central highlands of Madagascar with an area of 7'593 km² (1), roughly the size of the three cantons of Graubünden, Schaffhausen and Appenzell Innerrhoden combined. 226'258 people live in the district (1), almost all of them in extreme poverty.

The name Ankazobe literally means 'big tree' or 'place where many trees grow', indicating that the region was once characterised by dense forests. Today, only two forests remain in the entire district: the Ambohitantely Special Reserve and the Ankafobe Special Reserve. Together they cover just 18.33 km² (5) (6) or 0.24% of the area of Ankazobe.

2.2.2 Flora and Fauna

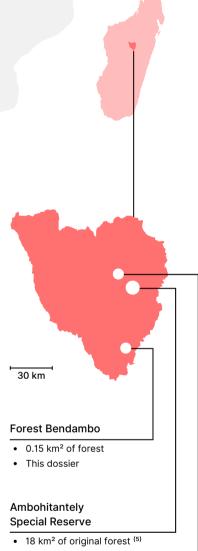
Madagascar broke away from the African mainland more than 150 million years ago ⁽⁷⁾ and during this long period developed an extraordinary megadiversity, with giant elephant birds and gorilla-sized lemurs ⁽⁸⁾. Due to its isolated location, Madagascar was discovered relatively late by humans. But it took only a few centuries for human influences to destroy much of the unique natural environment.

The central highlands are an important link between the rainforests in the east and the dry forests in the west of the island. In the past, the highland forests expanded during wetter periods, allowing animals to migrate across the island. The remaining, vanishingly small relict forests of the central highlands have thus gone through alternating periods of connectivity with and isolation from other forests, and can be considered important 'museums' of genetic diversity. (8)

2.2.3 Dangerous Afforestation Methods

Although there are many reforestation projects in the district, they rely almost exclusively on eucalyptus or pine trees. These invasive tree species extract huge amounts of water from the soil and cause springs to dry up. During the seven-month dry season, rice fields near large stands of eucalyptus suffer from water shortages. (9)

Another problem is the toxins in the leaves and roots of the eucalyptus trees, which the native fauna cannot adapt to. As early as the 1920s, it was recognised that reforestation with native tree species would be more ecologically sound. (9) Yet a hundred years later, (international) conservation organisations and the Madagascan government are still planting thousands and thousands of these species.



- 356 species of plants (10)
- 176 species of wild animals (10)
- Key Biodiversity Area (11)

Ankafobe Special Reserve

- 0.33 km² of original forest (6)
- Similar flora and fauna to Ambohitantely Special Reserve (12)
- Last forest with five world wide critically endangered plant species (12)
- Key Biodiversity Area (13)

The locations shown above are enlarged for illustration purposes.

3. Outputs

3.1 Forest Restoration



3.1.1 Acquiring and Preparing the Property

January - November 2025

To ensure the long-term conservation of the forest, we only plant trees and shrubs on land that is legally and cadastrally owned by CHANGING. As part of this strategy, in early 2025 we were able to purchase the property Bendambo in the village community of Fihaonana, just 2.2 kilometres from our headquarters and project management home, as we are registered as a local NGO in Madagascar. The property is 150'000 m² and costs the equivalent of CHF 41'200. We paid CHF 23'500 in January 2025. The remaining CHF 17'700 is due in September 2025. We will prepare the land for planting by the next rainy season at the end of 2025. This involves ploughing the soil with zebu cattle, cutting down invasive pine and eucalyptus trees and building two wells, two ranger huts and a fire break.

Influence of ownership structures in Madagascar	Property of our NGO	State or private property
Realistic protection against deforestation and slash-and-burn agriculture	✓	×
Duration of forest conservation	Unlimited	Arbitrary
Realistic possibility of producing coffee and honey	✓	×
Authority over the forest	✓	×
Cost-effective forest restoration on the property	×	✓



3.1.2 Planting Native Trees and Shrubs

March 2025 - February 2027

In March 2025, we will start digging planting holes with shovels and a petrol-powered planting hole drill. During the two rainy seasons between December 2025 and February 2027, we will plant a total of 390'000 trees and shrubs by hand. Our approach will be based on the natural vegetation and conditions in the Ambohitantely and Ankafobe forests. These two forests have an average of at least 3 woody plants/m², which increases natural competition for light and accelerates growth. At the same time, this density protects against extreme weather events such as tropical cyclones. We also plant an average of three woody plants per square metre, following nature's example. In total, more than 150 plant species are used, all of which are found in the two mentioned forests (see appendix A 'Plant Inventory in the Nursery' for details).

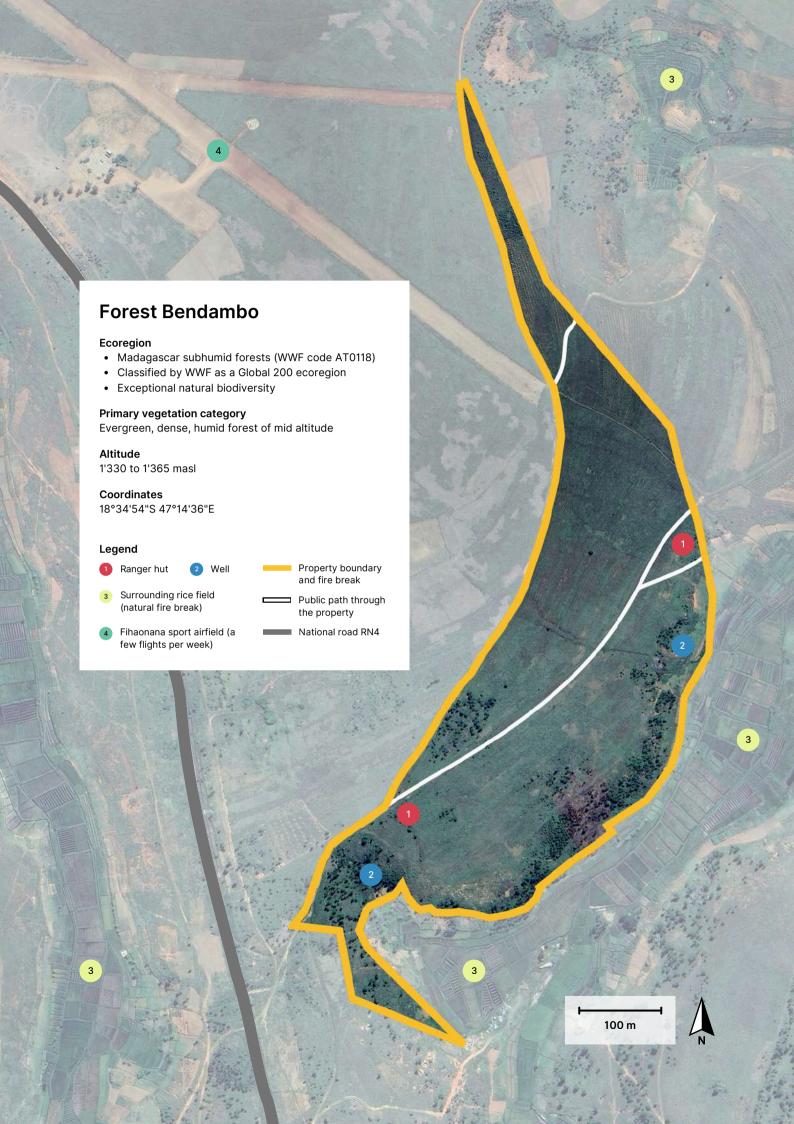
The five plant species Adenia longestipitata, Hibiscus cameronii, Memecylon minimifolium, Phylloxylon xiphoclada and Schizolaena tampoketsana are particularly valuable as they only occur in Ankafobe Forest and are critically endangered. The only non-native plants are coffee shrubs used for income generation. We deliberately limit them to a maximum of 1.5% of the total plants in the forest, or 5'000 in the case of Bendambo. The trees and shrubs are grown in our own nursery in Fihaonana.



3.1.3 Reintroducing Native Wildlife

Period currently not definable

Wildlife is essential to the development of the forest ecosystem, and at the same time very promising: According to Madagascar National Parks, 176 wild animal species live in the Ambohitantely Special Reserve, 40 km away, including 84 bird species, 40 amphibian species and 5 lemur species ⁽¹⁰⁾. In addition to the return of animals on their own accord, our aim is to reintroduce them with human help. The implementation strategy, apart from the introduction of the Madagascar honey bee, has not yet been defined.



3.2 Forest Protection

3.2.1 Measures to Generate Income from Non-Timber Products

3.2.1.1 Growing Coffee

By the end of 2026, we will have planted 5'000 Arabica plants of the exclusive Bourbon Pointu and Bourbon Rouge varieties from the neighbouring island of Réunion. The shade provided by the native plants means that the coffee berries ripen much more slowly, resulting in more intense flavours and higher-quality coffee. The forest improves soil fertility, regulates the water balance and promotes a natural equilibrium in which pests are controlled by their natural enemies - without the need for chemicals. The forest climate also makes coffee more resilient to climate change, which is particularly important given that more than half of the world's current coffee growing area could be lost to climate change by 2050. (14) At the same time, global demand for speciality coffee is growing steadily and is expected to more than double between 2023 and 2031. (15)

From 2032, the forest Bendambo will supply around three tonnes of roasted coffee per year and generate a minimum annual charitable income of CHF 120'000. A market price of at least CHF 40 per kg is more than justified given the quality and unique cultivation method. With an average consumption of 1'069 cups per person per year ⁽¹⁶⁾, we are confident that our high-quality coffee will be in great demand in Switzerland.

Madagascar is also home to a variety of wild coffee species that are inedible to humans but are an important food source for lemurs, birds, bats and other wildlife. In the Ankazobe District, and therefore in the future forest Bendambo, several wild coffee plants grow as part of our autochthonous plant list and contribute to biodiversity.

3.2.1.2 Producing Forest Honey

The project Tantely, Malagasy for 'honey', began in 2022 with the introduction of Madagascar honey bees, a subspecies endemic to Madagascar, to Fihaonana. Our apiary now has eight colonies. Although this is still a relatively modest number, given the destruction of nature in the area, we first had to cultivate bee-friendly plants ourselves. This led in 2023 to the idea of planting native trees and shrubs as a food source for the bees. This step ultimately led to the founding of Kafeala. As soon as the forest Bendambo provides a sufficient base for foraging, we will establish new bee colonies from our own apiary and produce forest honey. Due to the high demand for honey in Madagascar, it has not yet been decided whether the forest honey will be sold locally or also in Switzerland.

3.2.2 Protective Measures and Risk Assessment Comprehensive risk assessment See Annual Report 2024, p. 8 Probability and degree of influence: 1 rather negligible, 2 low, 3 moderate, 4 relatively high or 5 high

Risk	Measures	Prob- ability (A)	Influ- ence (B)	Relev- ance (A+B)
	Environmental risks			
Destruction of neighbouring forests	Restoration of many and biologically diverse forests	5	5	10
Climate change	High biodiversity, coffee cultivation in the shade of trees	5	5	10
Lack of information on native flora	Seeds and cuttings from the region, own plant list, research and collaboration with researchers	5	4	9
Forest fire	Rangers, firebreaks, awareness-raising campaigns	2	5	7
	Social and political risks			
Lack of nature conservation awareness	Awareness-raising campaigns, income generation	5	4	9
Malagasy government and nature conservation organisations unwilling to cooperate	Cooperation with private individuals	5	4	9
Financial risks				
Lack of donations	Adaptation to criteria, forests self-sustaining in the long term	4	5	9

3.3 Involvement and Empowerment of Village Communities

3.3.1 Creating Long-Term Jobs

From nursery gardeners to forest rangers: Bendambo provides over 22 long-term jobs in Fihaonana, and contributes to poverty alleviation through fair working conditions. As far as we know, we are the only employer that legally employs the villagers.

As a result they receive a national insurance number through their employment in the project and, together with their families, are covered by social and health insurance for the first time. It is important to us that we employ people for the long term and continually improve their quality of life and income.

Role (for forest Bendambo and other forests)	Number full-time positions	
Gardener Forest Restoration and Maintenance (digging planting holes, planting, etc.)	8	
Nursery Gardener	7	
Nursery Security Guard	3	
Compost Production Employees in the Tree Nursery	2	
Rangers (for the forest Bendambo)	2	
Total	22	
Plus indirect or future jobs for the collection of seeds, the production of coffee and honey, etc.		

Comparison working conditions and quality of life	Villagers employed in Kafeala	Average of villagers
Monthly (gross) salary in CHF (converted from MGA)	91	30 - 60
Method of salary payment	Bank transfer	Cash
Salary payment interval	Monthly	Irregular
Legal employment	✓	×
Social insurance	✓	×
Health insurance	✓	×
Income tax	✓	×

3.3.2 Raising Awareness in Village Communities

When we visited the Ankafobe Special Reserve, 50 km north of the project site, with our Nursery Manager Toky, it was the first time (!) in his life that he had seen a forest up close. The people of Fihaonana do not know what a forest is, how unique Madagascar's nature can be and why invasive plants, in relation to the project site especially invasive trees, are harmful to the environment.

We want to educate the villagers through targeted awareness-raising campaigns along our forest, in schools and in the village communities. The beneficiaries of our separate education project Fianarana are also actively involved in planting trees and shrubs.

3.3.3 Multiplying Project Approach

We are multiplying our approach by restoring many forests in the medium to long term. In addition, we are already selling trees and shrubs from our nursery. This is helping to spread native flora on a small scale. Naturally, we are particularly fond of rare and endangered species.

4. Outcomes and Impact

4.1 Goals

4.1.1 At Impact Level

Kafeala contributes to the restoration of resilient forest ecosystems, the propagation of threatened plant and animal species, poverty alleviation and nature conservation awareness in Ankazobe District, particularly in the village community of Fihaonana.



Picture: Ankafobe Special Reserve

4.1.2 At Outcome Level

4.1.2.1 Ecological Goals

· Resilient forest ecosystems

The restored forests are developing into resilient, species-rich ecosystems that will persist in the long term and provide a natural habitat for more than 150 indigenous plant and countless native animal species.

Growth of population sizes

The number of individuals and the reproduction and survival rates of threatened animal and plant species are increasing.

· Accelerated forest development

With a density of three woody plants per square metre, the forests grow at least twice as fast as with conventional methods, significantly accelerating restoration.

Self-sustaining forest protection

After seven years, the restored forests are financially capable of supporting and protecting themselves.

4.1.2.2 Socio-Economic Goals

· Climate-resilient income generation

The shade-loving coffee thrives under the canopy of trees, producing higher yields and better-quality coffee than conventional farming methods. In addition, Madagascar honey bees find plenty of food to reproduce and produce fine forest honey. Not to mention the sustainable cultivation of the new gourmet discovery, wild pepper.

· Role models in village communities

The people involved in the project live above the international poverty line, improve their quality of life through their own choices, treat their partners with respect and place great importance on their children having access to a comparatively good education.

Strengthening the local economy

On the one hand, the multiplication of the project approach creates additional jobs through the creation of further forests. In this way, fallow grasslands are transformed into value-added forests.

• Environmental awareness

The people of Fihaonana and surrounding villages, especially participants of our education project Fianarana and pupils, recognise the added value of native forests, actively participate in the planting of native species and develop an awareness of environmental conservation.

4.2 Impact Analysis, Optimisation and Communication

4.2.1 Monitoring and Evaluations

As part of the monitoring process, we continuously collect data on the resources used (inputs), the services provided (outputs) and the easily measurable results (outcomes). The aim is to systematically monitor the progress of the project Kafeala and provide sound information for decisions and adjustments. We will conduct an (interim) evaluation at the beginning of 2026 to assess the medium to long-term development of the project 'Kafeala Forest Bendambo'. The long-term impact of the project will be analysed in an ex-post evaluation in 2032.

4.2.2 Indicators

Level	Indicator
Inputs	Donations used (in MGA and CHF), working hours (in h) and material resources
	Restored forest area in m ²
	Number of plant species and individuals planted
	Number of plant species and individuals planted and classified as threatened
	Survival rate of planted individuals in % after 1, 3, 5 and 10 years
	Number of wild animal species we have reintroduced
	Number of coffee plants planted
	Yield of roasted coffee in kg
Outputs	Coffee revenue in CHF
	Honey yield in kg
	Honey revenue in CHF
	Number of plants sold from the nursery
	Number of permanent employees
	Gross monthly salary of permanent employees in MGA
	Number of awareness-raising campaigns carried out
	Number of participants per awareness-raising campaign
	Number of wild animal species that have returned of their own accord
Outcomes and Impact	Gross monthly salary of permanent employees in relation to the international poverty line
	Number of years until the forest is financially self-sustaining

4.2.3 Data Collection, Processing and Analysis

We collect, process and analyse data using the following methods.

Data collection methods

- Evaluation of satellite imagery and GPS-assisted drone footage
- · Planting list to record species and individuals planted
- Survey of plant survival rates using samples taken from defined areas
- Documentation of wild animal species that have returned on their own and those that have been reintroduced
- · Sales lists to record coffee, honey and plants sold
- Questionnaires and interviews with employees to determine their quality of life
- Photo and video documentaries to illustrate the progress of the project

4.2.4 Impact Optimisation and Communication

We continuously develop Kafeala by regularly evaluating the results of our impact analyses and adapting our approach as necessary. This information feeds into our reporting, which we publish in the form of half-yearly and annual reports.

5. Budget

	CHF	MGA	%
Forest restoration			
Acquiring and preparing the property			
Acquisition of property	38'500	192'500'000	
Land registry entry	2'000	10'000'000	
Soil ploughing	900	4'500'000	
GPS measurement and taxes	700	3'500'000	
Removal of invasive pine and eucalyptus trees	0	0	
Total Acquiring and preparing the property	42'100	210'500'000	21 %
Growing native trees and shrubs			
Salaries for 7 gardeners in the tree nursery	28'400	142'000'000	
Salaries for 3 security guards at the nursery	15'600	78'000'000	
Salaries for 2 employees in compost production	8'400	42'000'000	
Nursery bags, potting soil and compost production	8'000	40'000'000	
Procurement of native seeds and cuttings	7'000	35'000'000	
Nursery infrastructure	7'000	35'000'000	
Total Growing native trees and shrubs	74'400	372'000'000	39 %
Planting native trees and shrubs Salaries for 8 Gardeners Forest Restoration and Maintenance (digging planting holes, planting, etc.)	30'000		
	30 000	150'000'000	15 %
Forest protection	30 000	150'000'000	15 %
Forest protection Salaries for 2 Forest Rangers	4'500	22'500'000	15 %
•			15 %
Salaries for 2 Forest Rangers	4'500	22'500'000	15 %
Salaries for 2 Forest Rangers Construction costs for 2 ranger huts	4'500 3'000	22'500'000 15'000'000	15 %
Salaries for 2 Forest Rangers Construction costs for 2 ranger huts Belgian Shepherd Dogs (sponsored by the Project Management)	4'500 3'000 0	22'500'000 15'000'000 0	
Salaries for 2 Forest Rangers Construction costs for 2 ranger huts Belgian Shepherd Dogs (sponsored by the Project Management) Total Forest protection	4'500 3'000 0	22'500'000 15'000'000 0	
Salaries for 2 Forest Rangers Construction costs for 2 ranger huts Belgian Shepherd Dogs (sponsored by the Project Management) Total Forest protection Involvement and empowerment of village communities	4'500 3'000 0 7'500	22'500'000 15'000'000 0 37'500'000	
Salaries for 2 Forest Rangers Construction costs for 2 ranger huts Belgian Shepherd Dogs (sponsored by the Project Management) Total Forest protection Involvement and empowerment of village communities Awareness-raising campaigns	4'500 3'000 0 7'500	22'500'000 15'000'000 0 37'500'000	
Salaries for 2 Forest Rangers Construction costs for 2 ranger huts Belgian Shepherd Dogs (sponsored by the Project Management) Total Forest protection Involvement and empowerment of village communities Awareness-raising campaigns Creating jobs (see salaries above)	4'500 3'000 0 7'500	22'500'000 15'000'000 0 37'500'000	4 %
Salaries for 2 Forest Rangers Construction costs for 2 ranger huts Belgian Shepherd Dogs (sponsored by the Project Management) Total Forest protection Involvement and empowerment of village communities Awareness-raising campaigns Creating jobs (see salaries above) Total Involvement and empowerment of village communities	4'500 3'000 0 7'500 2'000	22'500'000 15'000'000 0 37'500'000 10'000'000	4 %

The reintroduction of wild animals and the production of coffee and honey (except for the cultivation and planting of coffee bushes) are not included in the project period or budget.

6. List of Sources

- Wikipedia, (21.09.2024), Ankazobe (district), Retrieved on the 10th of February 2025 from https://en.wikipedia.org/wiki/Ankazobe_(district).
- ² Global Forest Watch. Madagascar: Forest Change Dashboard. Retrieved on the 10th of February 2025 from https://www.globalforestwatch.org/dashboards/country/MDG/?category=forest-change&location=WyJjb3VudHJ5liwiTURHII0%3D.
- ³ WWF Madagascar. (17.03.2021). The precious forests of Madagascar. Retrieved on the 10th of February 2025 from https://www.wwf.mg/en/?2575441/The-precious-forests-of-Madagascar.
- ⁴ World Bank. (03.10.2024). Madagascar Overview. Retrieved on the 10th of February 2025 from https://www.worldbank.org/en/country/madagascar/overview.
- ⁵ Wikipedia. (15.10.2023). Ambohitantely Special Reserve. Retrieved on the 10th of February 2025 from https://en.wikipedia.org/wiki/Ambohitantely_Special_Reserve.
- ⁶ MBG Ecological Restoration. (12.02.2015). A tale of two highlands, Part II: Ankafobe, Madagascar. Retrieved on the 10th of February 2025 from https://mbgecologicalrestoration.wordpress.com/2015/02/12/a-tale-of-two-highlands-part-ii-ankafobe-madagascar/.
- ⁷ Wikipedia. (04.12.2024). Entstehung von Madagaskar. Retrieved on the 10th of February 2025 from https://de.wikipedia.org/wiki/Entstehung_von_Madagaskar.
- ⁸ Universität Hamburg. (09.2016). Lemuren-DNA verrät: Wie sah Madagaskar vor menschlicher Besiedlung aus? Retrieved on the 10th of February 2025 from https://www.uni-hamburg.de/newsletter/archiv/September-2016-Nr-88/Lemuren-DNA-verraet-Wie-sah-Madagaskar-vormenschlicher-Besiedlung-aus-.html.
- ⁹ D. W. Gade. (May 1996). Mountain Research and Development (Vol. 16, Nr. 2). International Mountain Society. Retrieved on the 10th of February 2025 from https://www.jstor.org/stable/3674005.
- ¹⁰ FAPBM. Ambohitantely Special Reserve. Retrieved on the 10th of February 2025 from https://www.fapbm.org/en/aire_protegee/ambohitantely-2/.
- ¹¹ Key Biodiversity Areas. Ambohitantely Special Reserve Factsheet. Retrieved on the 10th of February 2025 from https://www.keybiodiversityareas.org/site/factsheet/22426.
- ¹² Missouri Botanical Garden. Plan d'Aménagement et de Gestion de la NAP Ankafobe. Retrieved on the 10th of February 2025 from https://mobot.mg/conservation/doc_ankafobe/Plan-dAm%C3%A9nagement-et-de-Gestion-de-la-NAP-Ankafobe.pdf.
- ¹³ Key Biodiversity Areas. Ankafobe Forest Factsheet. Retrieved on the 10th of February 2025 from https://www.keybiodiversityareas.org/site/factsheet/45375.
- ¹⁴ L.C. Gomes, F.J.J.A. Bianchi, I.M. Cardoso, R.B.A. Fernandes, E.I. Fernandes Filho, R.P.O. Schulte, Y. Li, T. Veldkamp, C. Boutin, L. Drinkwater, A.C. Edwards, S.L. Poggio, S. Saggar, G. Seneviratne & B. Vanlauwe. (1st of June 2020). Agroforestry systems can mitigate the impacts of climate change on coffee production: A spatially explicit assessment in Brazil (Vol. 294). Agriculture, Ecosystems & Environment. Retrieved on the 10th of February 2025 from https://www.sciencedirect.com/science/article/pii/S0167880920300438.
- ¹⁵ Specialty Coffee Market Size, Share, and Growth Analysis. Retrieved on the 10th of February 2025 from https://www.skyquestt.com/report/specialty-coffee-market
- ¹⁶ SRF. (27.05.2024). Kaffeeland Schweiz Kaffee: nicht ohne die Schweiz. Retrieved on the 10th of February 2025 from https://www.srf.ch/news/wirtschaft/kaffeeland-schweiz-kaffee-nicht-ohne-die-schweiz.