

# Sustainability of forest investments



## CASE STUDY ON FAIRVENTURES SOCIAL FORESTRY IN INDONESIA





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## 1 INTRODUCTION

Green stocks are gaining popularity, and policy initiatives aim to align investments with sustainable development goals. The Global Nature Fund (GNF) and OroVerde - the Tropical Forest Foundation are investigating the market for forest investments in Germany as part of their joint project "Investments for forest and biodiversity conservation - Developments and trends". In this context, case studies on selected investments were conducted to examine them more closely in terms of ecological, social and economic criteria.

This case study, which was conducted by an Indonesian consultant<sup>1</sup>, focuses on the investment of Fairventures Social Forestry GmbH (FSF). FSF is a social enterprise that was founded in 2014 out of the non-profit sister company Fairventures Worldwide gGmbH. FSF's mission is climate protection through large-scale reforestation of degraded land and the preservation of species-rich forests that benefit local communities. It aims to reforest the degraded lands where farmers live. For FSF, an important means to achieve these goals is to establish sustainable value chains. In the studied investment, FSF uses an agroforestry approach that includes fast-growing timber, selected crops and non-timber forest products, as well as carbon credits. Sustainable processes will be established and local communities will be linked to markets that provide stable income opportunities.

The examined project is intended to serve as a model and demonstrate that the concept works on nearly 3.000 hectares. Subsequently, the approach is to be extended over a large area.

Between data collection in October 2022 (visiting project sites, conducting interviews, and document analysis) and the publication of this case study in May 2023, developments have occurred that FSF believes have required changes to the investment they offer. These are ongoing and complemented by both the investment form and the crops used in management. Chapters 2-7 present the investment at the time of data collection, supplemented by individual comparisons to the changed situation in 2023. In Chapter 8, FSF provides a brief overview of the planned changes and the relevant background.



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## 2 THE INVESTMENT: REFORESTATION FOR CLIMATE PROTECTION AND INCOME OPPORTUNITIES

Fairventures Social Forestry GmbH offers the present investment on the German market and has commissioned its subsidiary PT<sup>2</sup> Fairventures Social Forestry with the implementation in Indonesia. For simplification, "FSF" is used in the following to refer to the provider of the investment in Germany and the project implementer in Indonesia. When a distinction between the two companies is relevant, they will be referred to as FSF Germany and FSF Indonesia for simplicity.

FSF acts as investor and manager of the concession of the community forest. The concession holder in Indonesia is the Batu Bulan Farmers' Association, which represents members from five villages in the Gunung Mas regency in Borneo, Indonesia.

The following table provides an overview of the investment at the time of data collection in October 2022. In particular, the investment type has changed since then (see Chapter 8).

Provider & implementer	Fairventures Social Forestry GmbH and PT Fairventures Social Forestry
Investment location	2,925 hectares in Borneo (Central Kalimantan), Indonesia.
Time frame	The plantation was started in 2019. The cooperation agreement with the farmers' association was signed in May 2021 and has a term of 30 years. The aim is to subsequently extend the co-operation agreement.
Total investment volume	4,835,000 USD.
Goals and concept	Climate protection through large-scale reforestation of degraded areas and the preservation of species-rich forests that benefit local communities.
Certificates	FSC certificate is aimed for.

Type of investment	Subordinated loans (see chapter 3.1)
Target group	Retail, institutional and professional investors.
Start and duration	The subordinated loan has been on offer as described here since February 16, 2023. Interest and repayment is scheduled for years 7-10 of the loan term.
Exit option	Ordinary right of termination for the first time 24 months before the end of the term. In the event of ordinary termination, 50 percent of the interest claims that would have accrued over the remaining term of the loan must be repaid. In principle, a sale is possible at any time, but there is currently no liquid secondary market.
Minimum investment volume	250 €
Target yield	5% per year.
Planned distribution (year 1-10)	Interest and repayment are to be distributed in years 7-10.
Possibilities of influence for investors	No direct influence possible with the investment type of subordinated loans.
Website	<a href="https://fairventures.earth/de/">https://fairventures.earth/de/</a>

### 3 THE PROJECT REGION: BATU BULAN ON BORNEO

The project area in Batu Bulan Community Forest is located in Rungan Barat sub-district in Gunung Mas district in Central Kalimantan province on the island of Borneo, Indonesia. The provincial capital and largest city of Central Kalimantan is Palangkaraya, located about 160 km south of the project area. The climate is hot (average 26.7 °C), humid and characterized by the alternation of rainy and dry seasons. The topography of the area varies from very hilly and steep slopes to flat areas. The altitude ranges from 20 to 150 meters above sea level. Some slopes in the northern part of the island reach a gradient of over 40 percent, which makes forestry use in these areas uneconomical. The sometimes difficult terrain requires precise planning of infrastructure, plantation row alignment, and other forestry operations such as thinning and harvesting.

The three main landscape types in the project area before the start of the project were scrub and shrubland, rubber plantations in various stages of degradation, and legally protected secondary forest with high conservation value (HCV forest, after the English term high conservation value, see Table 2 and Figure 2). The protected tree species Borneo ironwood (*Eusideroxylon zwageri*) occurs in the HCV forest and sporadically in the other landscape types. The rubber plantations were extensively managed for a period of 20 to 30 years. As soon as the productivity of the rubber trees decreased, they were cut down and additionally burned in order to plant rice afterwards. Locals refer to the degraded rubber forest as "sleeping land," land waiting to be used again for growing rubber or other crops.

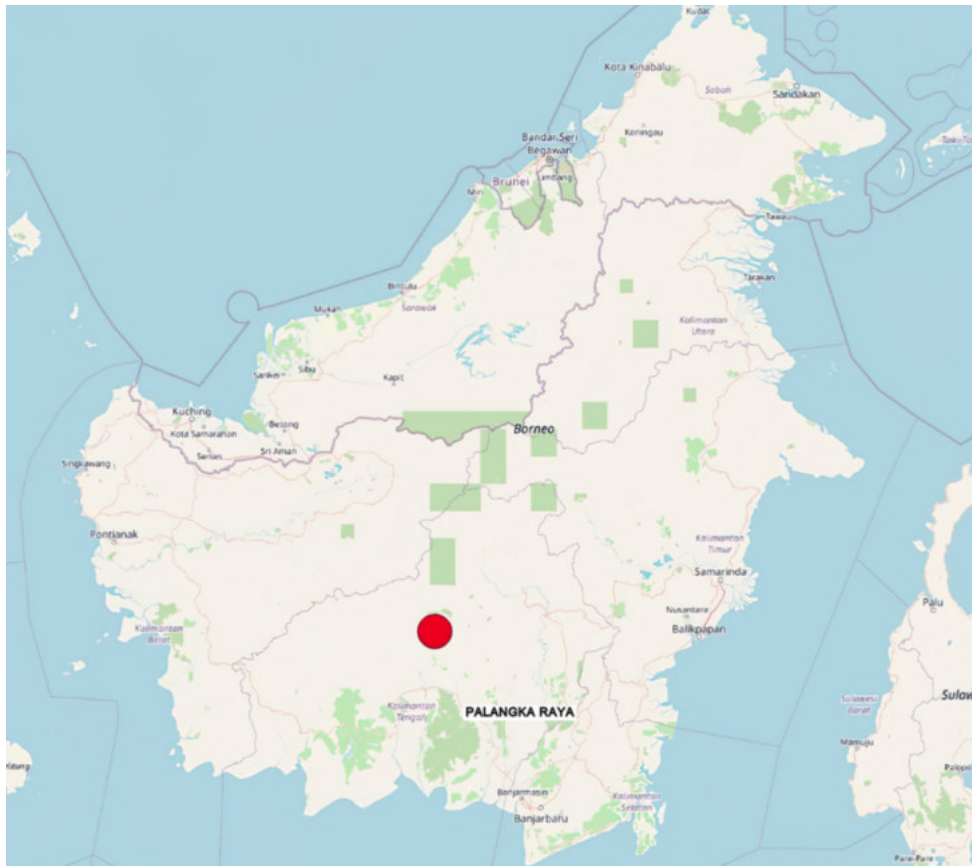


Figure 1: Project area in Borneo

Vegetation types in the project area before project start		
Landscape	Surface area	Share
Rubber plantation	1,814 ha	62%
Secondary forest with high conservation value	550 ha	19%
Shrub and bush land	531 ha	18%
Others	30 ha	1%
<b>Total</b>	<b>2,925 ha</b>	<b>100%</b>

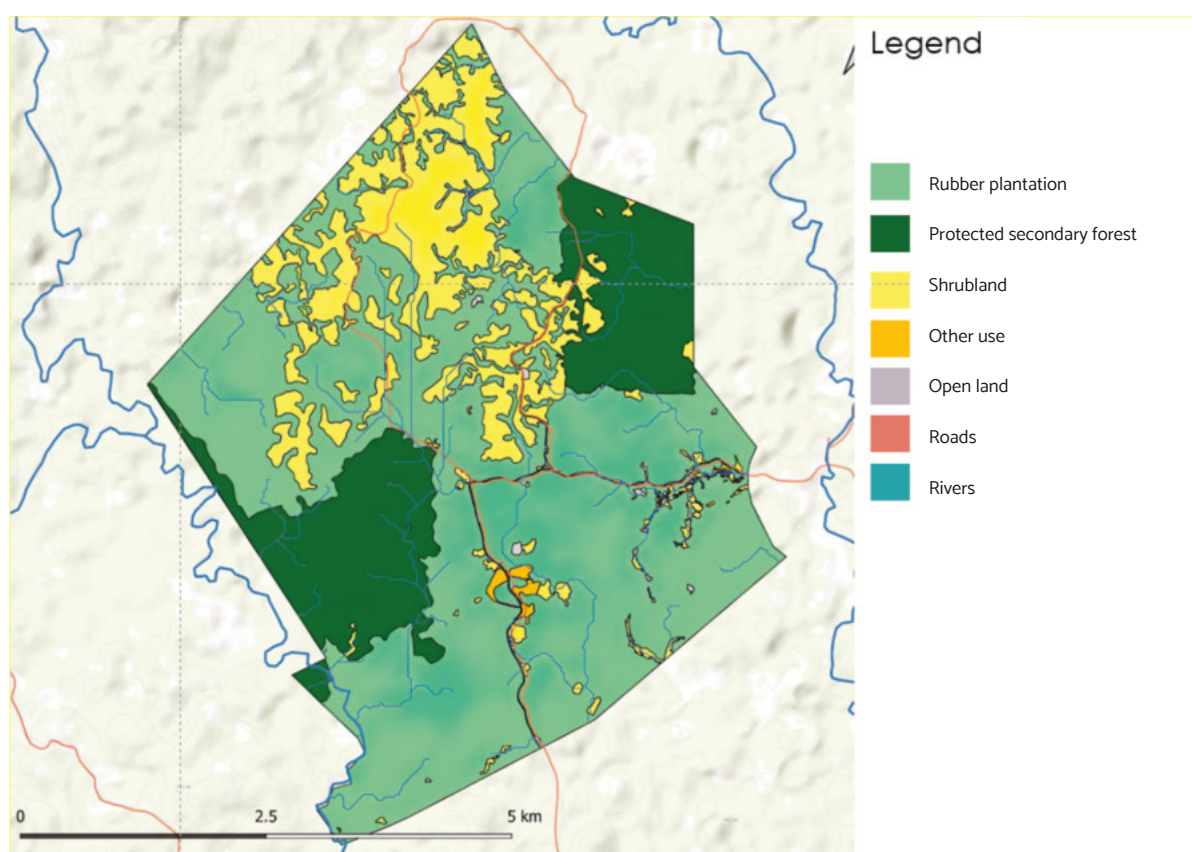


Figure 2: Map of vegetation types in the project area before project start

The project area in Batu Bulan has been designated by the government as a permanent forest, which may not be entered without permission from the government. However, indigenous communities have lived in the project area long before Indonesian independence. To reflect this, the area is also classified as a community forest (Hutan kemasyarakatan - Hkm) within the social forestry system. This allows local communities to use and manage permanent forests as well. However, certification, for example by the FSC, is a prerequisite for logging. Furthermore, the use of non-timber forest products (NTFP) is generally allowed in protected forest areas. The project area is crossed by a river with relatively clear water<sup>3</sup>.



## 4 ANALYSIS

The following analysis considers ecological, social and economic aspects of the investment. It is based on literature research and interviews. Likewise, on-site visits were carried out by the commissioned consultant, which provided a direct insight into the different types of vegetation in the project area.



Figure 3: River in the project area

### 4.1 ÖKOLOGISCHE ASPEKTE

#### ► Forest and agroforestry areas

For the establishment of timber plantations and agroforests, only degraded bush and shrub land and the areas of former rubber plantations are considered. In these areas, land and forest fires occurred before the start of the project, especially when the dry season lasted longer than the rainy season. At the beginning of the project in 2019, the tree species planted were Sengon (*Paraserianthes falcataria*), Jabon (*Anthocephalus cadamba* or *Anthocephalus macrophyllus*) and Acacia (*Acacia mangium*). However, FSF is subsequently focusing on planting Sengon trees, as the project area offers the best growing conditions for this species. FSF has also been cultivating various additional products on a trial basis since 2019, allowing for short-term harvesting. Ginger has proven successful and is currently used as a mixed crop with Sengon (cf. Figure 4).

On the areas planted primarily with sengon, FSF plans to also plant the broad-rooted tree species *Dipterocarpaceae* sp. which grows more slowly and therefore requires maintenance over a longer period of time. This is intended to increase tree species diversity. Species with high conservation value will be relocated if they were present on the land prior to planting. However, this is only possible with relatively small trees and sloping terrain may also make relocation impractical.

Reforestation of degraded land is viewed positively by OroVerde and GNF as it counteracts soil erosion and stabilizes local water cycles. The approach to cultivate the tree species *Dipterocarpaceae* sp. in addition to Sengon is a step in the right direction and the increased use of other tree species would also be very welcome in terms of biodiversity.





*Figure 4: Ginger as a useful plant for enrichment plantings*

► **Secondary forest with high conservation value**

In the secondary forest areas with high conservation value and in the buffer zones around water bodies, the legal protection status is met. In the buffer zones around rivers, FSF, with a protection zone of 150 meters, exceeds the legal requirements of 50 meters protection zone around river banks. In addition, FSF also protects cultural sites such as bone houses (sanding<sup>4</sup>). The above protected areas are not used for economic purposes.

Occurring plant and animal species of special conservation concern are Borneo ironwood (*Eusideroxylon zwageri*) and Malayan bear (*Helarctos malayanus*). Enrichment plantings are used to increase the density of native species important for biodiversity and riverine conservation. This will be implemented in remaining secondary forests, buffer zones, and future biodiversity corridors. FSF has identified a potential biodiversity corridor that could connect the two large secondary forest areas of high conservation value in the project area (see Figure 13). OroVerde and GNF would greatly appreciate the timely concretization and implementation of these plans. Biodiversity corridors are important for many animal species that gain access to new sources of food, water, other resources, and additional conspecifics. This is especially true as managed lands are dominated by one tree species and thus provide very limited forage sources for various wildlife species. The endangered Malayan bear could also potentially benefit from a biodiversity corridor on the project site. The location of the two large secondary forest areas with high conservation value also provides very good conditions for linking these two habitats.



*Figure 5: Secondary forest area with high conservation value*





Figure 6: Malayan bear



Figure 7: Ironwood tree (*Eusideroxylon zwageri*)

#### ► Carbon stock and biodiversity monitoring

FSF has committed to annual carbon monitoring, but unlike its sister company Fairventures Worldwide gGmbH, has not yet published any analyses of climate benefits. Carbon claims for 320 hectares of reforestation have already been sold to a German engineering company. FSF uses TreeO Single Tree Monitoring technology, a monitoring method developed by the sister organization Fairventures Digital Solutions. This is based on existing standards, but is currently still in the external verification process. Carbon claims are handled through the TreeO app<sup>5</sup>. TreeO will continue to be used for carbon analysis and trading. Biodiversity monitoring is still in the planning phase.

OroVerde and GNF welcome the existing approaches to carbon and biodiversity monitoring. These should be further advanced. A fully developed carbon and biodiversity monitoring could identify existing strengths and weaknesses in both areas, providing a reliable basis for taking specific actions. In order to provide investors and other stakeholders with more detailed information on the environmental dimension of the investment, the publication of monitoring documents is important.

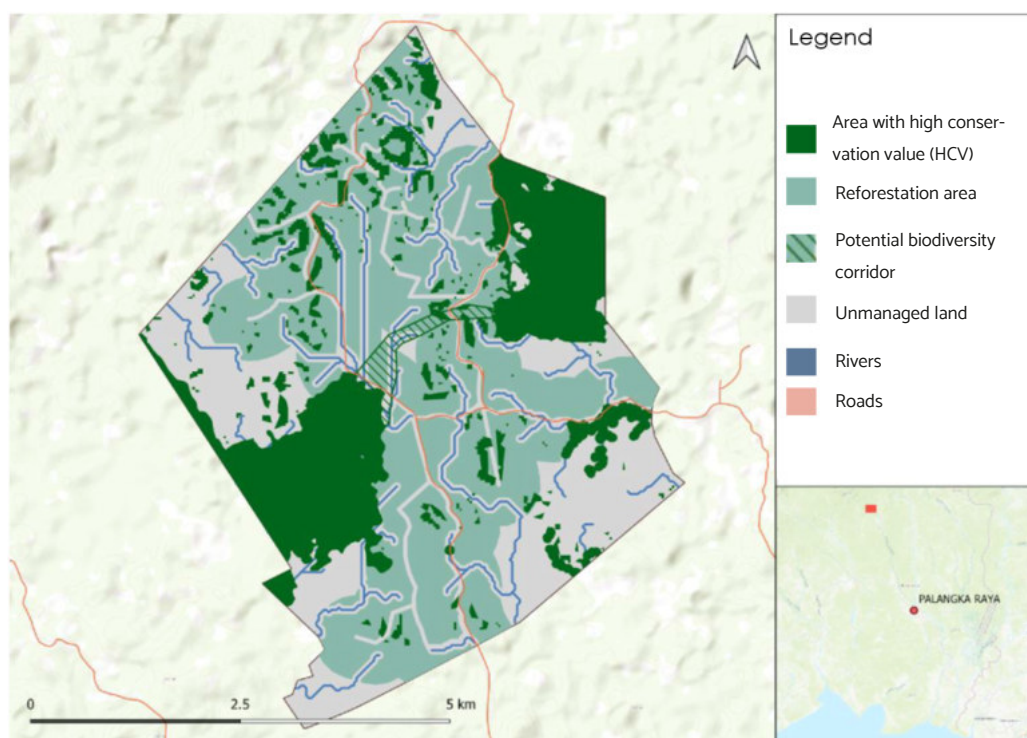


Figure 8: Map of land use planning



## 4.2 SOCIAL ASPECTS

The local farmers' association Batu Bulan is the concession holder of the project area and can thus decide on the management of the land.

### ► Indigenous communities

The majority of the population in the project area are members of the indigenous Dayak community. The Dayak community manages their land traditionally and according to informal rules. The principles of forest management by the Dayak community in Central Kalimantan are based on an understanding of the environment as a balance of the relationship between man and nature<sup>6</sup>. According to an interview by the contracted consultant with anthropologist Kusni Sulang, the function of the forest for the Dayak community is not only to meet the needs of life, but also the responsibility to conserve natural resources for the life of future generations.

In Kalimantan and in the sub-district of Rungan Barat, conflicts frequently arise over unclear land tenure and land boundaries. The Dayak view is that the land was already theirs before the forest was incorporated into the Indonesian system. At the same time, under formal Indonesian law, the forest is the property of the state. This conflict is mitigated by the fact that the project area is classified by the government as a community forest (HKM), so that the local community holds the concession in the long term.

### ► Safeguarding the socio-economic interests of the local population

FSF takes the culture and traditional approaches of the local population to protect the forest into account. At the same time, FSF also applies modern forestry methods, taking into account corporate regulations. These prohibit, for example, slash-and-burn practices traditionally used in shifting cultivation. In establishing the Sengon plantations, FSF preserves rubber plantations and some large rubber trees that are still productive and leaves them for landowners to use and care for.



Figure 9: A worker shows the trunk of a rubber tree with a cut for the extraction of latex (milky sap)



Figure 10: Traditional collection container for latex

FSF prefers to employ local people from the ranks of the Batu Bulan Farmers' Association as day laborers for forestry maintenance work (see section Working conditions and chapter 4.3, section Contract with local partner). They already know the field conditions well and do not require additional accommodation or travel.

FSF brings new farming methods to the region that differ from traditional Dayak farming practices. In particular, adapted to the needs of Sengon trees, FSF uses artificial fertilizers<sup>7</sup>. The reasons for the intensive use of artificial fertilizer are the sandy soils in Kalimantan and the lower cost of artificial fertilizer compared to compost. However, especially in sandy soils, artificial fertilizers leach out particularly easily, posing risks to groundwater. In the future, FSF plans to make greater use of compost and biochar to improve the soil and has already commissioned its first biochar oven in 2022. Biochar not only increases the soil's ability to store water and nutrients, but also sequesters carbon in the soil for the long term. Therefore, the production of biochar will also be used to generate carbon credits. The plan is to use the Global Artisan C-Sink standard from Carbon Standards International<sup>8</sup>.

From GNF/OroVerde's point of view, the use of chemical fertilizers can have negative effects on the soil, human health and the environment. For example, significant amounts of greenhouse gases are released especially in the production, but also after the application of nitrogenous artificial fertilizers.



Figure 11: Chemical phosphate fertilizer

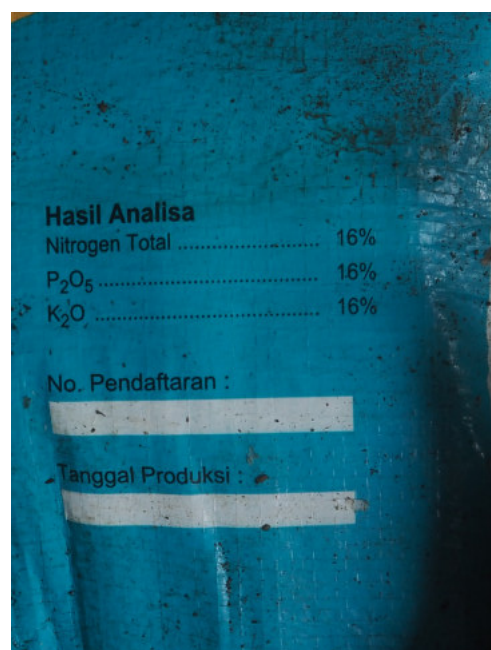


Figure 12: Nitrogen-phosphate-potassium (NPK) fertilizer

### ► Working conditions

FSF has internal regulations for code of conduct, policies, regulations, and corporate behavior, as well as for ensuring the rights and protection of children. According to documents and interviews with staff in the Palangka Raya office and in the Gunung Mas project area, FSF complies with legal requirements. In this context, however, it is important to distinguish between longer-term employees and day laborers (cf. Table 7).

	Permanent staff	Day workers
<b>Positions</b>	Director, managers, senior staff, team leaders, field workers	Field workers
<b>Wages/salaries</b>	Varies depending on level of employment, pay per month	At the time of data collection: IDR 125,000 (EUR 7,70) per day; As of 2023: IDR 130,600 (EUR 8,10) per day, payment per month.
<b>Social security</b>	Public and private health and social insurance are offered by FSF	Receive public health care through the government. Receive health and social insurance from FSF starting in 2023. Plans to implement these insurance plans were referenced during data collection.
<b>Position description</b>	Varies, depending on employment level	Maintenance work such as fertilizing, cultivating, weeding, pruning and thinning out
<b>Working hours</b>	5 day week, 8 hours per day	5 day week. At the time of data collection, 8 hours per day; from 2023, 7 hours per day
<b>Origin</b>	Varies, depending on job profile	Should be from the local population
<b>Required educational background</b>	Secondary or tertiary education	No requirement

All conversions into EUR are based on the exchange rate as of 01.05.2023



According to Decree No. 188.44/587/2020 of the Governor of Central Kalimantan, the regional minimum wage in Central Kalimantan for a full-time position is 2,922,516 Indonesian rupiah (approximately EUR 180.70) per month. When converting daily wages to monthly wages, it is defined by government regulation that for a five-day week with 8-hour days, the daily wage should be multiplied by 21.625<sup>9</sup>. At 21.625 working days per month, an FSF day worker received a monthly wage of 2,703,125 rupees (about 167.10 EUR) at the time of data collection. Consequently, FSF fell short of the legal minimum wage by about 7.5 percent.

In early 2023, FSF implemented two relevant adjustments:

1. The daily wage was increased to IDR 130,600 (EUR 7.98).
2. The working time per day was reduced from 8 to 7 hours. This has additionally increased the hourly wage of FSF day workers, as a higher salary is now paid for fewer hours worked.

At the same time, according to Decree No. 188.44/448/2022 of the Governor of Central Kalimantan, the legal minimum wage was raised to IDR 3,181,013 per month starting in 2023. Accordingly, the monthly minimum wage for a 7/8 position is IDR 2,783,386,375, meaning that the monthly salary of an FSF day worker of IDR 2,824,225 (EUR 172.62) still exceeds the minimum wage by 1.5 percent after the salary increase of the reduction in hours.

At the time of data collection, FSF was preparing to register day workers in accordance with the law<sup>10</sup> and offer health and social insurance on this basis. At the beginning of 2023, this was implemented.

FSF thus recognized the two deficiencies in the payment and coverage of day workers that existed until 2022 and addressed them in the following year. OroVerde and GNF consider it essential that companies pay the legal minimum wage and comply with legal minimum requirements regarding health and social insurance. In Indonesia, undercutting of the legal minimum wage for unskilled workers in the agricultural and forestry sector is quite widespread. Nevertheless, international companies in particular have a special responsibility to comply with the legal regulations.

Day workers accounted for two-thirds of all employees in 2022. However, the share of longer-term employees increased noticeably from 22 percent in 2019 to 34 percent in 2022. As of Aug. 22, 2022, FSF employed 74 day workers (44 of whom were women) and 50 longer-term workers (8 of whom were women). Thus, while the gender balance for day workers is fairly even, the hires for the more highly educated and better paid longer-term employees were predominantly men. FSF has recognized this as a challenge, and aims to improve the gender balance among longer-term employees over time through new hires. The six-person management team already consists of three women and three men.



Figure 13: Day laborers working in the field to prepare the soil



Figure 14: Day laborers are taken by pickup truck from the field office to their work site

### ► Monitoring of social aspects

FSF has a forest management plan, but it does not take into account social aspects related to employees and the relationship with the local indigenous population. Currently, project reports are written on an event-driven basis. Occasions are the disbursement of corporate donations or of impact loans (loans with low interest rates, which aim at social or ecological effects), for which a reporting partly with performance indicators is required. In the future, an annual report is to be prepared summarizing the company's performance, also on the basis of its own indicators, which have yet to be defined. A monitoring report is also to provide qualitative descriptions and background information for interpreting the results.

OroVerde and GNF consider it positive that FSF has established a close cooperation with local and especially indigenous inhabitants, which is also reflected in a transparent contract with the farmer community Batu Bulan (see below). Working conditions were good during the period under review, except for the shortcomings identified for day laborers (concerning minimum wage and social security). FSF has created a considerable number of jobs, which strengthen the income opportunities of the local population. Improvements in compliance with the minimum wage and social security for day laborers were implemented promptly. There is still need for action in monitoring social aspects to secure the social profile of the investment and to provide more detailed sources of information to all stakeholders. The gender balance among longer-term employees in Indonesia also still offers potential for improvement. At many other levels, however, the gender balance is already relatively even.

## 4.3 ECONOMIC ASPECTS

FSF Indonesia has a mainly operational role. Strategically relevant decisions are made jointly with FSF Germany.

### ► Contract with local partner

Batu Bulan Farmers' Association has established a business entity called Batu Tahasak Mahasur Community Forest Producers Cooperative (BTM) to enter into an agreement with FSF. The cooperation agreement for cooperation in the license area was signed in May 2021 and has a term of 30 years. The option of renewal will be discussed by the parties no later than one year prior to the expiration of the license period.

The main points of the contract document are:

- BTM and FSF work together to carry out sustainable forestry, crop production, reforestation and conservation, and other management and utilization activities in the license area.
- BTM grants FSF the right to use the license area and provides contact persons for the administrative staff and the management of FSF to enable a smooth cooperation. BTM encourages its members to work as field workers for FSF.
- FSF will be responsible for the management of the business activities and the technical direction of the work in the licensed area, support in raising capital to finance the initial investments and operating costs until the cooperation activities generate sufficient financial resources, and management of the sales process. The right to perform these tasks is vested in BTM by virtue of the licenses granted and is formally delegated to SFF by this agreement.

The remuneration of the contracted workers and employees of BTM and the surrounding municipalities is paid by the FSF and is to be calculated as part of the operating costs. Therefore, this is not part of the profit to be apportioned.

### ► Profit distribution

The profit sharing between FSF and BTM is based on the following principles:

- All revenues from the sale of products or other revenues from business in the licensing area are revenues of FSF.
- BTM is entitled to a profit share of 15 percent and FSF is entitled to a profit share of 85 percent of the total annual net profit generated by the business activities in the license area.

The board of BTM assessed the system as fair and transparent to the contracted evaluator. FSF makes the land more productive and encourages members to work as day laborers in the project areas to earn a daily income. OroVerde and GNF also see the transparent contract design positively and come to the conclusion that both contracting parties also benefit from the project in practice.

### ► Investors

To date, FSF has received pledges for USD 4.8 million of funding from institutional investors, of which USD 3.6 million have already been drawn down. This does not yet include the funds raised from retail investors (see table on p. 3, type of investment).



## 5 ASSESSMENT REGARDING THE EU TAXONOMY

The EU Taxonomy is a law to increase the transparency of companies and financial market actors with regard to their environmental sustainability. This is intended to trigger a sustainability transformation of the economy in the EU. Details can be found on our EU Taxonomy website (<https://en.oro Verde.de/our-expertise/what-is-the-eu-taxonomy>).

The EU taxonomy requires three business groups to disclose information on the environmental sustainability of their business activities:

1. Financial market participants and providers of financial products
2. Large companies (until 2024: >500 employees, >20 million euros in total assets or >40 million euros in sales; from 2025: companies that meet two of three criteria: >250 employees, >40 million euros in sales or >20 million euros in total assets)
3. All listed companies except micro-enterprises with fewer than 10 employees

FSF does not belong to any of these groups and is therefore not subject to disclosure under the EU taxonomy. Within the scope of this case study, it was nevertheless examined to what extent the investment would fulfill essential criteria of the EU taxonomy<sup>11</sup> on forest management<sup>12</sup>.

In order to make a Substantial Contribution (SC) to the environmental goal of "climate protection" within the meaning of the EU taxonomy, FSF's investment would have to meet four criteria:

- (1) Financial market participants and providers of financial products
- (2) Analysis of climate benefits
- (3) Ensuring durability
- (4) Regular review of criteria fulfillment

### Classification in relation to the climate protection criteria of the EU taxonomy:

<b>Forest Management Plan</b>	Would be partially met. There is a forest management plan with the above-mentioned possibilities for improvement in social aspects.
<b>Analysis of climate benefits</b>	Would not be met. An estimate of how the project will affect the local GHG balance compared to a baseline scenario has not yet been published. However, there are plans to do so. An analysis of climate benefits is also a requirement for the sale of carbon credits. Carbon claims for an area of 320 hectares of reforestation have already been sold to a German engineering company. FSF applies its own monitoring method, TreeO Single Tree Monitoring Technology. TreeO will continue to be used for carbon certificate analysis and trading.
<b>Permanence</b>	Would be partially met. The government has designated the project area as a permanent forest, which is the most important step towards meeting this criterion. However, another sub-criterion requires an existing forest management plan and is therefore not currently fully met (see criterion 1).
<b>Regular check</b>	An assessment is not yet possible. This criterion provides for regular verification of the fulfillment of the criteria for a significant contribution to climate protection. Authorities or third parties commissioned with the audit would have to carry out the audit. However, FSF's willingness to participate in this case study and to undergo an FSC certification process indicates that FSF is not opposed to an independent analysis of its own work.

In addition to the above SC criteria, there are other requirements to be considered:

- The so-called Do No Significant Harm (DNSH) criteria, according to which harm to the remaining environmental objectives must be avoided. The reconciliation with the DNSH criteria cannot be carried out at present because the requirements for the non-climate-related environmental targets of the taxonomy have not yet been determined. As soon as these have been determined, the DNSH criteria for the climate-related environmental targets will also be adjusted again.
- The minimum protection requirements for human and labor rights<sup>13</sup> (including UN Guiding Principles on Business and Human Rights<sup>14</sup>, OECD Guidelines for Multinational Enterprises<sup>15</sup>, ILO Declaration on Fundamental Principles and Rights at Work<sup>16</sup>). Compliance with the minimum protection requirements was not verified as part of the case study.

## 6 CONCLUSIONS

In conclusion, from the perspective of GNF and OroVerde, the following aspects from the case study are worth highlighting:

### ► Foundation and cooperation of FSF Germany and FSF Indonesia

FSF was spun off from its non-profit sister company Fairventures Worldwide gGmbH in 2014. As the investment is foreign, there is a gap in culture and knowledge between international and local staff and a high staff turnover in Indonesia. FSF Indonesia is mainly operational and strategically relevant decisions are made jointly with FSF Germany. As a result, urgent local issues may have to be referred to FSF Germany first, leading to delays. This is a common problem with investments where the provider is located in a different country than the country where the practical implementation takes place. However, FSF has set up weekly director meetings as well as management team meetings between Germany and Indonesia to create direct exchange and coordination opportunities. In addition, according to FSF Germany, decisions are preferably made at the lowest possible level.

### ► Ecological impact

The non-management of the state-protected secondary forest areas with high nature conservation value is evaluated positively by OroVerde/GNF, since animals and plants can develop undisturbed on more than 19 percent of the area. It would be very welcome if the envisaged biodiversity corridor is implemented quickly, as this would allow the two large secondary forest areas with high nature conservation value to be connected (see Figure 8).

Soon after the establishment of the company in 2019, FSF will focus on planting and maintaining sengon trees due to economic considerations. The use of artificial fertilizer is also due to economic reasons. Expanding the number of tree species cultivated and reducing the use of artificial fertilizer would, according to the assessment of OroVerde and GNF, strengthen the ecological impact of the project.

### ► Social impact

The workforce also benefits from FSF's operating activities. In particular, the longer-term employees, who are generally well educated, benefit from a good level of social security. For many day laborers, their job is an important additional source of income and serves as a hedge against poor harvests. FSF achieved compliance with the minimum wage and the legally required social security for day laborers after the end of the study period. In the opinion of OroVerde/GNF, it is essential to continue to comply with the legal minimum standards in the future.

The monitoring of ecological and social aspects has not yet been implemented, or only in part. A functioning ecological and social monitoring is a prerequisite for the reliable verification of FSF's goal: As a social enterprise, to protect the existing forest by creating income opportunities for local farmers and establishing sustainable value chains.

### ► Logging

It is expected that the first sengon trees can be harvested in 2023 - 2024. There will be an annual block-by-block full harvest. For this purpose, the area has been divided into seven comparably sized units. From a social point of view, this is positive, as in this way continuous yields can be generated and income can be generated to establish permanent jobs. Ecologically, the concept of full harvesting, in which a contiguous forest area is logged, is not to be welcomed. However, it is common practice in plantation management. If FSF areas were managed as biodiverse mixed forest, full harvests would be avoided at all costs. FSF does not expect to break even with this harvest, but this is in line with the company's plans. Currently, with the support of consultants, FSF is preparing to obtain the necessary government permits for logging with the help of consultants.



## 7 TRANSFERABLE ASPECTS - APPROACHES TO SUSTAINABLE FOREST INVESTMENT

GNF/OroVerde have identified some transferable content from the case study that can provide direction for sustainable forest investments.

### ► Diversification of revenues

Forest investments, and in particular financing for individual companies such as the subordinated loan offered by FSF at the time of data collection, are comparatively risky investments. Therefore, it is important to diversify returns as much as possible. FSF has taken steps to do this and generates income not only from plantation timber, but also still from plant crops grown between the trees (ginger as an inter-crop). In addition, there are revenues from the sale of non-timber forest products (NTFPs) such as rubber and various fruits from the forest. The use of ratan is also planned. Additional revenues will be generated from the sale of CO2 certificates.

### ► Value creation with multiple chain links

FSF tries to cover profitable parts of the value chain, such as the marketing of carbon certificates, itself with its sister companies. This offers the opportunity to reach the profit zone earlier as an overall company. In addition, FSF's working environment offers synergies with its non-profit sister company Fairventures Worldwide. Thus, there is an exchange of experience between the two organizations, which can also lead to the identification of new commercial or charitable activities.

### ► Social forestry in a community forest

FSF is the first and so far only foreign company in Indonesia to invest in social forestry in a community forest. If the investment is a success, not only FSF itself could expand its managed areas, but also other foreign investors could follow this example. For an investment on land owned by local communities, a functioning cooperation with local (forest) farmer organizations is essential. From the point of view of the farmers' association Batu Bulan, the cooperation with FSF is successful. Therefore, in principle, other companies can also orientate themselves on the described contract design and cooperation method.

### ► Relationship with the local population

FSF is popular with the local population and its workforce due to a transparent approach, respect for different (indigenous) cultures, and payment that is perceived as appropriate. A good relationship with the local population is essential for the success of the investment on the social, but also on the economic and ecological level.

## 8 PLANNED CHANGES TO THE INVESTMENT

As noted above, between the data collection in October 2022 and the publication of this case study in May 2023, developments occurred that, according to FSF, required changes to the investments they offered. We were no longer able to analyze these developments ourselves as part of this case study. Since the current status of the investment and an outlook are nevertheless relevant in the context of this case study, FSF Germany itself describes the developments below, as well as the implemented and planned changes to the investment:

„The collaboration between the Batu Bulan Farmers' Association and Fairventures Social Forestry is the first active cooperation of its kind in Indonesia. Since 2018, we have been doing valuable pioneering work together and are readily used as an example by local and national authorities.

At the beginning of our cooperation, the farmers' association had already obtained the community forest concession with the help of an international NGO, but they had no partner who could support them in acquiring capital and implementing a professional management concept. For Fairventures, the cooperation was a great opportunity to help the Batu Bulan association and to test our newly developed business model in practice.

In the course of the project, we were able to build a fantastic team with valuable expertise and, together with the local farmers, we have now reforested 450 hectares of degraded land and created sustainable jobs at the same time. However, we do not want to hide the fact that we have also encountered major challenges that were not foreseeable at the beginning. The site in Central Kalimantan on Borneo lags significantly behind comparable areas on Java and Sumatra in terms of tree growth rates (e.g. due to soil quality and microclimate). In addition, logistics costs for our forestry and agricultural products pose a major challenge, as the sales markets are predominantly located on Java. The current situation of the global economy and the numerous crises make it additionally difficult to get investors on board who are willing to bear the risks of a sustainable agroforestry project.

The current economic challenges therefore unfortunately made it unavoidable for us to initiate a comprehensive restructuring of this project at the beginning of 2023. As our project was not fully financed from the start, this process aims to optimize our agroforestry systems for faster revenues and to make our processes more efficient. Specifically, this means that we will initially focus on implementing a sustainable rubber supply chain and, depending on the success or availability of other revenue sources, we will examine additional value creation potential (e.g. cocoa, coffee). The restructuring is taking place in close consultation with the management of the Batu Bulan farmers' association, and our socialization team is in contact with the local population to present the new opportunities to them.

As part of the restructuring, our management had to make the decision that the contracts of some colleagues could not be renewed. We are confident that the restructuring will enable us to build a solid foundation for our company in the long term and to re-employ our colleagues.

For the reasons described above, it is unfortunately not possible for us to offer investment opportunities for small investors at the moment. However, it is still possible to support our work with investments of 200,000 euros or more or donations/grants of any amount.“



## SOURCES AND FOOTNOTES

- <sup>1</sup> The commissioned expert works for The Borneo Institute and has carried out projects on the topic of income generation for smallholders for Fairventures Worldwide gGmbH from January 2020 to July 2022. Prior to the assignment, the consultant assured OroVerde of an unbiased, objective and critical analysis of the investment and the project areas.
- <sup>2</sup> PT is the Indonesian acronym for limited liability company
- <sup>3</sup> Liu und Bona, (2019): [https://www.researchgate.net/publication/333631923\\_Protecting\\_Indonesia%27s\\_forests\\_Does\\_it\\_matter\\_who\\_manages\\_the\\_land](https://www.researchgate.net/publication/333631923_Protecting_Indonesia%27s_forests_Does_it_matter_who_manages_the_land); Rauf (2020): <https://doi.org/10.2991/assehr.k.200529.276>
- <sup>4</sup> One houses traditionally hold the bones of people who died a long time ago (cf. <https://en.wikipedia.org/wiki/Sandung>).
- <sup>5</sup> <https://treeo.one/en/>
- <sup>6</sup> Usop, L.S. (2020): <https://e-journal.upr.ac.id/index.php/enggang/article/view/2465>
- <sup>7</sup> The fertilizer is NPK (nitrogen-phosphate-potassium)-16-16-16, which is applied in small holes next to the planted trees. The fertilizer doses are 750 g of compost as basic fertilizer per hole (if necessary), then dolomite to increase pH or reduce soil acidity, and NPK fertilizer of 30 g in the third month, 60 g in the sixth month, and 120 g in the twelfth month. The planting density of Sengon trees in one hectare is 833, resulting in the use of 174.93 kg of NPK fertilizer per hectare.
- <sup>8</sup> <https://www.carbon-standards.com/de/standards-und-services/service-506-global-artisan-c-sink.html>
- <sup>9</sup> Regierungsverordnung der Republik Indonesien Nummer 35, Jahr 2021, Paragraph 32: <https://peraturan.bpk.go.id/Home/Details/161904/pp-no-35-tahun-2021#:~:text=PP%20No.,Hubungan%20Kerja%20%5BJDIH%20BPK%20RI%5&text=LN.2021%2FNo.45.go.id%20%3A%2042%20hlm>
- <sup>10</sup> InCorp Indonesia (2022): <https://www.cekindo.com/blog/social-security-insurance-type-indonesia>
- <sup>11</sup> Delegierte Verordnung (EU) 2021/2139 der Kommission (EU-Klimataxonomie), siehe Anhang I, Gliederungspunkt 1.3
- <sup>12</sup> Diese kursorische Prüfung stellt keine Rechtsberatung dar.
- <sup>13</sup> Die Mindestschutzvorschriften sind in Art. 35 der Delegierten Verordnung (EU) 2019/2088 des EU-Parlamentes und des Rates definiert (<https://eur-lex.europa.eu/legal-content/DE/TXT/PDF/?uri=CELEX:32020R0852&from=DE>).
- <sup>14</sup> <https://www.auswaertiges-amt.de/blob/266624/b51c16faf1b3424d7efa060e8aaa8130/un-leitprinzipien-de-data.pdf>
- <sup>15</sup> [https://www.oecd-ilibrary.org/governance/oecd-leitsatze-fur-multinationale-unternehmen\\_9789264122352-de;sessionid=s-ADWJnhoIDZau9l1Db4tVeOGQObcu8NqyomeJrP.ip-10-240-5-182](https://www.oecd-ilibrary.org/governance/oecd-leitsatze-fur-multinationale-unternehmen_9789264122352-de;sessionid=s-ADWJnhoIDZau9l1Db4tVeOGQObcu8NqyomeJrP.ip-10-240-5-182)
- <sup>16</sup> [https://www.ilo.org/wcmsp5/groups/public/---europe/---ro-geneva/---ilo-berlin/documents/normativeinstrument/wcms\\_193727.pdf](https://www.ilo.org/wcmsp5/groups/public/---europe/---ro-geneva/---ilo-berlin/documents/normativeinstrument/wcms_193727.pdf)



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<b>Publisher:</b>	Global Nature Fund & OroVerde - The Tropical Forest Foundation
<b>Websites:</b>	<a href="http://www.globalnature.org/de/investments-wald-biodiversitaetsschutz">www.globalnature.org/de/investments-wald-biodiversitaetsschutz</a> <a href="http://www.oroverde.de/waldinvestments">www.oroverde.de/waldinvestments</a>
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<b>Project duration:</b>	2021-2023
<b>Photo and figure credits:</b>	Titel: © OroVerde - H.Menningen, P. 2 & S. 17: © OroVerde - E.Mannigel; Fig. 1: OpenStreetMap: <a href="https://www.openstreetmap.org/#map=5/-2.546/118.016">https://www.openstreetmap.org/#map=5/-2.546/118.016</a> , Bearbeitung: Standy Christianto mit Qgis 3.28.0-Firenze (2022); Fig. 2: Fairventures Social Forestry, Legende übersetzt und vereinfacht: OroVerde; Fig. 6: © Frank C. Müller, CC BY-SA 3.0 ( <a href="https://creativecommons.org/licenses/by-sa/3.0/">https://creativecommons.org/licenses/by-sa/3.0/</a> ); Fig. 3-5 & 7-14: © StandyChrist
<b>Release date:</b>	September 2023



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This project is funded by the German Federal Agency for Nature Conservation with funds from the German Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection



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