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Lessons Learned from the Forestwise–P4G Partnership on Enhancing Rainforest Value

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FOREST WISE

Yayasan Rimba Raya Abadi

P4G Pioneering Green Partnerships, Investing in Impact

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Executive Summary

Forestwise, in partnership with Yayasan Rimba Raya Abadi (YRRA) and supported by P4G, has demonstrated that a commercially viable non-timber forest product (NTFP) business can generate living incomes for smallholders while strengthening forest protection in West Kalimantan. Through its **"Rainforest Value"** model, Forestwise links wild and forest based ingredients such as illipe butter and kukui oil to premium international markets via a traceable, fair for life, certified, and ESG-driven supply chain.

During the P4G grant period, revenue skyrocketed between 2024 and 2025, driven by new food and confectionery customers, expansion in the cosmetics sector, and pre-payment arrangements with key buyers. Over 2024-2025, Forestwise formalized 1,813 long-term farmer contracts, trained 1,814 farmers across 99 villages, and expanded Forest Protection Agreements to 35 villages, contributing to the protection of approximately 273,423.3 ha area of forest in its sourcing landscapes, while also completing farmer land-ownership assessments, operationalizing a QR-enabled traceability dashboard, and delivering core product development and market-entry workstreams for illipe, Kukui, Arenga, and rubber.

Internally, Forestwise strengthened its governance and ESG systems, and secured multiple certifications, culminating in B Corporation certification in early 2026 with a final verified score of 144.7, considered as an exceptional score. The partnership also generated evidence on climate risk and illipe seasonality, prompting a strategic shift toward diversification into Arenga sugar and natural rubber to stabilize farmer incomes and reduce dependence on a single forest commodity. Crucially, the support from the P4G National Platform has allowed Forestwise to build and strengthen its network within Indonesia. This robust network, which includes climate ventures, other climate enterprises, a UN Agency, NGOs, and Government bodies, enables Forestwise to broaden its collaborations and work effectively across multiple stakeholder groups in the country.

This paper distills lessons learned from Forestwise's journey, structured along the full business pathway from problem framing and product innovation, through business model development and impact delivery, to challenges, solutions, and recommendations for scaling sustainable NTFP enterprises.

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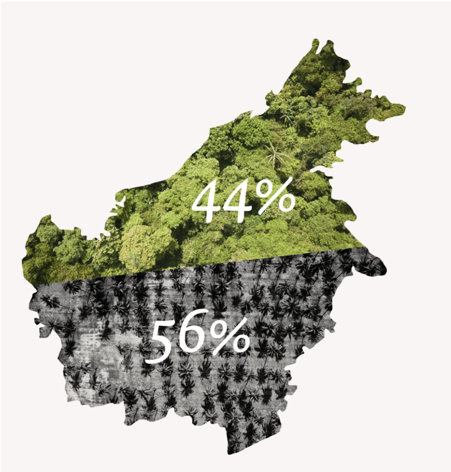
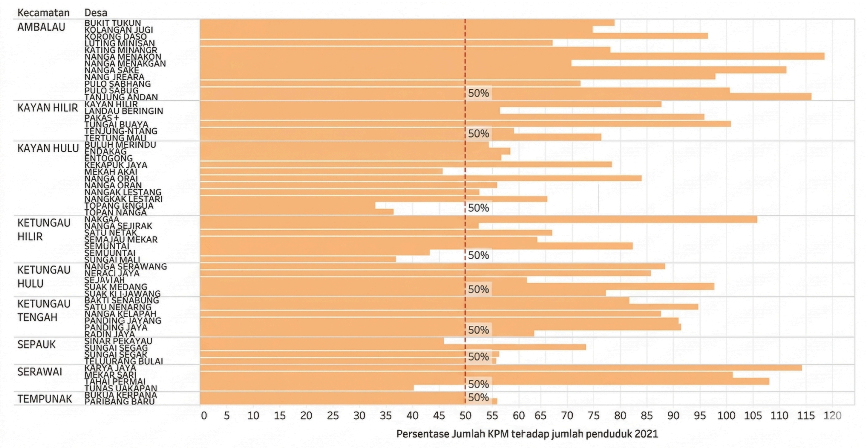
Background



Picture 1: Borneo Forest vs Deforestation percentage
Source and Copyright: Forestwise

Forestwise operates in West Kalimantan, Indonesia, a region where two structural crises reinforce each other: accelerating deforestation and persistent socio-economic vulnerability in forest-adjacent communities. Studies show that Borneo has already lost a large share of its original forest cover, with remaining forests increasingly fragmented and under pressure from various commercial land-use activities, undermining biodiversity, carbon storage, and forest-dependent livelihoods (Carlson et al., 2012; Gaveau et al., 2019). In West Kalimantan, official statistics indicate that more than 330,000 people still live below the poverty line, with poverty concentrated in rural districts where communities are closely tied to forest landscapes (BPS Kalimantan Barat, 2024). Poverty is also particularly acute in villages located inside forest areas: in many forest-area villages, more than 50 percent of residents are classified as poor, as shown by data from 59 villages within forest boundaries in Sintang District (see image below).



Picture 2: Percentage of Poor Family in Sintang District in 2022
Source: BAPPEDA Kab Sintang, 2022

Many smallholders and forest-product collectors depend on irregular, low-value income from volatile commodities and often lack formally recognized land rights, leaving them vulnerable to encroachment and exclusion from decisions over their territories (Li et al., 2018). In this context, intact rainforest remains structurally undervalued in economic decisionmaking, even when local and indigenous communities have a strong cultural, ecological, and practical interest in keeping forests standing.

Forestwise as solution

Forestwise was established in 2018 in the Netherlands, with PT Forestwise Wild Keepers as its wholly owned subsidiary in Indonesia. Founded by Theo Smits and Dirk-Jan Oudshoorn after witnessing severe deforestation in Borneo, the company was created to empower local communities to protect the remaining rainforest while creating sustainable economic opportunities. Forestwise does this by producing rainforest-derived ingredients that increase the value of forest resources, support community livelihoods, and provide sustainable alternatives for global consumers.

As a social and environmental enterprise, Forestwise creates **"Rainforest Value"** by positioning standing forests as viable economic assets through supply chains for non-timber forest products such as illipe, kukui, Arenga sugar, and other wild forest-based ingredients.

Forestwise operates an integrated, end-to-end business model that connects forest conservation with global market demand through the development of sustainable value chains for non-timber forest products (NTFPs).

Community identification & forest protection commitment
Forestwise first identifies communities, cooperatives, or villages that legally manage forest areas and are willing to protect them. Participation is linked to forest conservation commitments and long-term partnerships.

NTFP selection & market validation
The company assesses which forest products (e.g., illipe, kukui, arenga sugar) have the highest market potential and aligns supply with confirmed demand before scaling operations.

Mapping & supply capacity verification
Forest areas and production capacity are mapped, including satellite monitoring, to ensure traceability and validate sustainable sourcing potential.

Offtake agreements & supply contracts
Forestwise secures buyers first, then establishes agreements with communities, ensuring stable demand, fair pricing, and long-term sourcing relationships.

Sustainable harvesting & community sourcing

Local collectors harvest NTFPs from natural forests and agroforestry systems without damaging ecosystems, creating income directly linked to keeping forests intact.

Training & pre-processing at community level

Communities are trained in proper harvesting, handling, drying, and preparation to improve quality and enable traceable supply chains from the source.

Central processing (Sintang facility)

Raw materials are processed in the Forestwise factory in West Kalimantan into high-value ingredients such as butters, oils, and sugars for cosmetic and food applications.

Quality control, certification & traceability

Products are standardized and certified (e.g., organic, Fair for Life), with full traceability systems linking forest origin to final product, meeting global buyer requirements.

Sales, distribution & global partnerships

Forestwise supplies ingredients to international markets through direct sales and partnerships (e.g., distributors in Europe and the US), targeting sustainability-driven brands.

Premium buyers & impact-driven brands

Products are used by global cosmetic and food companies, including premium brands such as Lush, which prioritize ethical sourcing, traceability, and environmental impact.

Continuous monitoring & forest protection

Forest areas are continuously monitored (including satellite tracking), and forest protection agreements ensure that sourcing directly contributes to conservation outcomes.

The Theory of Change

Forestwise aims to create environmental, social, and commercial impact by preserving rainforest ecosystems while improving livelihoods and building sustainable markets. Its approach focuses on protecting biodiversity and mitigating climate change, while supporting smallholder farmers and collectors through training, fair market access, and long-term income opportunities. By developing and supplying certified, traceable natural ingredients, Forestwise contributes to transforming the food, cosmetics, and rubber industries with sustainable alternatives.

In the short term, the company works on strengthening farmer capacity, establishing land rights, ensuring market readiness, and achieving certifications. These efforts lead to longer-term outcomes such as improved livelihoods, expanded economic opportunities across villages, and the protection of large areas of rainforest. Through activities like community engagement, training, supply chain development, and global sales, Forestwise builds transparent and efficient value chains. Ultimately, this model addresses the root problem of deforestation in Borneo by making standing forests more valuable than converted land, thereby aligning economic development with environmental conservation.

Picture 3: Forestwise Theory of Change

Source and Copyright: Forestwise

P4G Intervention and Results

Picture 4: Illipe Nut Drying Process by Forestwise Team
Source and Copyright: Forestwise

1. **Expanding the Market**
   a. **Intervention:** Support Forestwise in moving beyond a niche cosmetics segment into food and confectionery applications for illipe butter, while preparing market entry strategies for Arenga sugar and natural rubber.
   b. **Results:**
      - Secured and fulfilled significant illipe butter orders for both cosmetics and new food and confectionery buyers.
      - Successfully placed illipe cake (previously considered a waste product) into the animal-feed market at scale.
      - Secured breakthrough contracts with new clients for kukui oil.
      - Advanced market development for natural rubber by completing a latex study, developing an initial business model, and engaging commercially with tire companies and sustainable fashion brands.
2. **Strengthening the Supply Chain**
   a. **Intervention:** Deepen farmer engagement through land-ownership assessments, training, and long-term contracts. Expand Forest Protection Agreements and improve post-harvest and processing systems.
   b. **Results:**
      - Trained 1,814 farmers (1,217 men and 597 women) across 99 villages in agroforestry, financial literacy, and NTFP diversification.
      - Formalized 1,813 long-term supply contracts with farmers.

- Signed Forest Protection Agreements with 81 villages, which directly contributed to the protection of an estimated 55,000 hectares of forest in the sourcing landscapes.

3. **Improving the Enabling Environment**
    a. **Intervention:** Develop and operationalize ESG and traceability frameworks, advance food-safety and sustainability certifications, and align with provincial forest-governance and social-forestry initiatives.
    b. **Results:**
        - Advanced a comprehensive corporate ESG strategy and completed B Corp verification with a high score of 144.7.
        - Maintained and expanded key global certifications, including Fair for Life, organic, halal, and kosher.
        - Successfully operationalized a QR-enabled traceability dashboard, strengthening governance, transparency, and buyer confidence.
4. **Strengthening Networks and Visibility**
    a. **Intervention:** Leverage national and international platforms, trade shows, and investor events to connect with buyers, funders, and policy stakeholders, positioning the "Rainforest Value" model within broader climate and green-growth agendas.
    b. **Results:**
        - Achieved a sharp increase in revenues between 2023 and 2024, maintaining strong business performance into 2025.
        - Successfully attracted additional grant funding and soft loans, improving overall institutional capacity and financial resilience.

Picture 5: Forestwise Registered Smallholder Farmers
Source and Copyright: Forestwise and Utama Spice

Impact

The Forestwise-P4G partnership was established to demonstrate that a commercially viable non-timber forest product (NTFP) enterprise can effectively address the intertwined challenges of accelerating deforestation and socio-economic vulnerability in West Kalimantan . By advancing the "Rainforest Value" model, the initiative successfully connected community-harvested ingredients—such as illipe butter and kukui oil—to premium international markets, proving that standing forests can serve as highly valuable economic assets . Over the course of the project, this approach yielded substantial, measurable outcomes that reinforce the viability of integrating conservation with business growth . The resulting achievements of this intervention are detailed below across three core dimensions: social, environmental, and economic impact.

1. Social Impact and Community Empowerment

The Forestwise-P4G partnership has significantly enhanced the socio-economic resilience of forest-adjacent communities. By introducing long-term supply contracts, premium pricing structures, and improved post-harvest practices, the initiative successfully replaced volatile, low-value earnings with stable, higher-value Income opportunities for smallholders. Comprehensive training programs in agroforestry, financial literacy, and product diversification equipped farmers with the skills needed to manage their resources sustainably and plan beyond a single commodity harvest.

Picture 6: Forestwise and Utama Spice Team
Source and Copyright: Forestwise and Utama Spice

Furthermore, community empowerment was heavily supported by structural initiatives like land-ownership assessments and Forest Protection Agreements. These measures provided communities with stronger tenure security and the foundation for community-driven forest governance, empowering villages to confidently resist external land-use pressures. Quantitatively, the intervention yielded substantial results:

- Total Reach: The project directly and indirectly impacted approximately 4,359 individuals, including 725 male and 348 female farmers.
- Job Creation: The expansion of operations facilitated the creation of 1,140 new jobs.
- Gender Equity: Forestwise institutionalized women's empowerment within its operations, achieving 60% female representation in leadership roles and 33% on the board of directors, alongside maintaining an 18.2% female workforce and successfully launching 9 women-benefiting products.

2. Environmental Impact and Climate Mitigation

Picture 7: Illipe Trees
Source and Copyright: Forestwise and Utama Spice

The project's environmental strategy centers on making standing forests more economically valuable than converted land. Through a combination of zero-deforestation commitments, traceable sourcing networks, and formalized Forest Protection Agreements, communities were provided with tangible economic incentives to maintain forest cover.

This framework successfully contributed to the overall preservation of approximately 200,000 hectares of forest, with an estimated 55,000 hectares directly linked and protected under the Rainforest Value supply chain. To ensure long-term environmental stewardship,

Forestwise implemented a formal Environmental, Social, and Governance (ESG) Strategy and Responsible

Business Conduct (RBC) policies. Additionally, the company established a baseline for its climate footprint, tracking emissions at 11,685.44 kg CO2 equivalent. Ongoing process improvements and planned investments in energy efficiency are laying the groundwork to further reduce the operational footprint of (NTFP) processing.

3. Economic Impact and Commercial Viability

A primary achievement of the partnership was demonstrating the commercial viability of a private NTFP enterprise that prioritizes measurable forest protection alongside aggressive market growth. By expanding the application of wild-harvested ingredients beyond niche cosmetics into the mainstream food, confectionery, and natural latex industries, Forestwise successfully diversified its market presence.

Picture 8: Illipe Butter in Different Type
Source and Copyright: Forestwise

This market expansion drove exceptional financial performance without disclosing specific figures:

- Revenue Growth: The company achieved a strong 21% Year-over-Year revenue increase from January to December 2025, maintaining a consistently positive Year-to-Date EBITDA. This reflects a continuation of the sharp revenue growth seen since 2023, driven by new customers, expanded commercial contracts, and pre-payment arrangements with key buyers.
- Investment Attraction: The rigorous implementation of ESG frameworks, digital traceability, and the successful attainment of B Corp certification significantly enhanced the company's credibility among investors. As a result, Forestwise effectively attracted critical blended finance, securing additional grant funding from strategic partners (including IDH, KEM, and SPVO), which complemented a previously raised SAFE investment.

Challenges and Mitigation

While the Forestwise-P4G partnership successfully delivered significant social, environmental, and economic impacts, the journey to scaling the "Rainforest Value" model also revealed critical operational and market challenges. Relying heavily on a highly seasonal and climate-sensitive commodity like illipe butter exposed inherent vulnerabilities in the supply chain, which were further compounded by the rigorous regulatory and compliance hurdles of entering mainstream food markets. Additionally, balancing short-term commercial goals with the strict donor and investor demands for rapidly upgraded governance and ESG systems created operational tension for the growing enterprise. Recognizing that these obstacles were an integral part of the learning curve, Forestwise proactively responded by implementing a series of targeted mitigations. The following table outlines these specific challenges alongside the strategic solutions, ranging from product diversification to enhanced traceability and strategic partnerships that were applied to build a more resilient and sustainable business.

Category	Core Challenge	Key Mitigation
Climate & Supply	High seasonality and climate shocks expose the vulnerability of relying on a single commodity (illipe).	Diversified the product portfolio (adding Arenga sugar and natural rubber) to spread risk and build resilience.
Market & Operations	Entering new markets requires strict food compliance, navigating remote logistics, and finding premium buyers.	Implemented a QR-enabled digital traceability dashboard and leveraged strategic partnerships (like P4G) to build buyer trust.
Governance & ESG	Balancing short-term commercial growth with investor demands for upgraded internal systems and due diligence.	Formalized an ESG strategy, hired dedicated certification staff, and achieved B Corp certification.

Table 1: Summary of Challenge and Mitigation of Rainforest Value Implementation

Lessons learned

Forestwise's experience offers several lessons for sustainable NTFP businesses and their supporters:

a. Single-commodity models are inherently fragile in climate-sensitive landscapes. Illipe's seasonality and climate-driven variability have shown that even a successful product cannot carry the full burden of farmer livelihoods and business growth. Diversification into multiple forest-compatible commodities is essential for resilience.

b. Farmer contracts and forest protection agreements must be backed by real market access. Long-term contracts and conservation commitments are powerful, but they only deliver impact when paired with reliable buyers, premium pricing, and risk-sharing mechanisms such as pre-payments and shared investments in quality and infrastructure

c. ESG and traceability are strategic assets, not compliance burdens. Investments in ESG strategy, certifications, and digital traceability increase market access, pricing power, and investor confidence. They also create internal discipline and clarity about risk management and impact priorities.

d. Clear functional value propositions unlock mainstream markets. Positioning illipe butter as a credible cocoa-butter equivalent for food and cosmetics enabled Forestwise to go beyond niche "exotic" markets and engage with established brands and manufacturers. Sustainability claims must be accompanied by robust technical performance.

e. Blended support works best when it combines market, system, and organizational strengthening. The P4G partnership was most effective where it simultaneously supported farmer systems, traceability, ESG, and business development, rather than focusing on isolated pilots.

Picture 9: Lesson learned of NTFP Supply-Demand Practices

Recommendations

Based on this experience, the following recommendations can inform future efforts:

1. For Forestwise and similar enterprises:
    a. Accelerate portfolio diversification into Arenga, rubber, and other NTFPs to stabilize income and deepen conservation incentives.
    b. Continue strengthening ESG measurement and reporting, including broader carbon accounting and biodiversity indicators, to meet evolving buyer and regulatory expectations.
    c. Invest in local leadership and field capacity to manage increasingly complex supply chains and community relationships.
2. For investors and donors:
    a. Design funding instruments that recognize the multi-year nature of market building for NTFPs, combining grants, concessional capital, and commercial finance in phased pathways.
    b. Support investments in “backbone” systems traceability, ESG, governance which often lack dedicated financing but are critical for scale and de-risking.
3. For policymakers and platforms:
    a. Strengthen policy support for NTFPs in national climate strategies, including social forestry programs, land-rights formalization, and deforestation-free supply-chain regulations that reward sustainable producers.
    b. Use national platforms to convene buyers, financiers, and producers around specific commodities and landscapes, enabling faster dealing and learning.

Conclusions

The Forestwise–P4G partnership shows how a social and environmental enterprise built around a rainforest value model can grow from an early experiment into a more mature, trusted actor capable of delivering meaningful environmental and social impact. By aligning commercial incentives with conservation and community well-being, the Rainforest Value model offers a practical pathway to make standing forests more attractive than alternative land uses.

At the same time, the experience underscores that success is contingent on diversification, strong governance, robust traceability, and strategic partnerships. Climate risk, market barriers, and operational complexity require integrated solutions rather than isolated interventions. As Forestwise enters its next phase, with B Corp certification, an expanded product portfolio, and a growing investor pipeline it provides a tangible example for how sustainable NTFP businesses can scale while staying true to their mission.

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