



Forest Management Plan

แผนการบริหารสวนป่า

AGRIAC Global Co.,Ltd

2024-2025





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1. Introduction

Agriac Global Co., Ltd. is dedicated to managing its rubber plantations and forest areas with a commitment to sustainability. The Forest Management Plan reflects our ongoing efforts to balance environmental conservation, community engagement, and economic viability. We aim to uphold the highest standards of forest management, in line with FSC (Forest Stewardship Council) principles and international regulations, such as the European Union Deforestation Regulation (EUDR).

1.1 Overview of Agriac's Forest Management

We recognize that sustainable forest management requires a collaborative approach. Our 2024-2025 Forest Management Plan reflects this commitment by outlining a strategy developed in close cooperation with our smallholder partners, local communities, and relevant government agencies. This plan prioritizes environmental protection, social equity, and economic viability, ensuring compliance with FSC and EUDR standards. Through transparent communication and participatory decision-making, we aim to achieve measurable progress in all three areas.

We committed to leading the way in sustainable rubber plantation and forest management in Southern Thailand. Our 2024 Forest Management Plan builds upon our 2023 successes while proactively addressing identified non-conformances from the previous audit. This plan details a comprehensive strategy developed in close collaboration with our smallholder partners, local communities, and relevant government agencies to achieve ambitious, measurable targets in environmental stewardship, social equity, and economic viability.





Management Unit Description

Agriac operates under an FSC Forest Management (FM) certification with a Type I Group structure, which involves shared legal responsibility between the group management and its members. The management model follows the SLIMF (Small and Low Intensity Management Forest) approach, focusing primarily on the harvesting of Non-Timber Forest Products (NTFP), particularly natural rubber, from smallholder plantations. Timber extraction is not a core activity, with an average annual timber harvest of less than 5,000 m³ over a five-year period.

The scope of Agriac's FSC certification applies to a GROUP FMU-SLIMF (Small and Low Intensity Forest) management unit. Additionally, Agriac applies for the FSC standard for smallholders in Thailand, which applies specifically to individual plantation units that are less than 20 hectares in size. These units can include woodlots, orchards, agroforestry systems, boundary trees, or small groups of trees. The standard also applies to smallholders producing both timber and Non-Timber Forest Products (NTFPs), such as latex rubber, seeds, fruits, and more.

A smallholder in this context is defined as an individual, family, or community managing these forest areas, and they may be part of a group certification. The certification enables these smallholders to access FSC-certified markets while demonstrating their commitment to sustainable forest management practices. Timber harvesting within these smallholder units is regulated to ensure compliance with SLIMF standards, with timber extraction limited to ensure sustainability.

An MU can include multiple smallholder plantations within a province, provided they adhere to FSC's definition of smallholder size (less than 20 hectares per unit) therefore in 2024 here is total 5 MU in 2024 operation

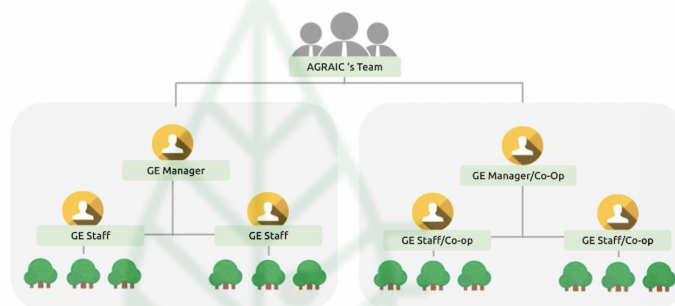
<i>Management unit</i>
Krabi
Nakhon si thammarat
Phangnga
Surat Thani
Trang



1.1.1 Management Focus

The certification follows a Type I Group structure, which emphasizes shared responsibilities between the group management and its members in managing forest plantations sustainably. The primary focus remains on the responsible production of natural rubber, while timber extraction, when it occurs, remains minimal and strictly regulated according to FSC standards.

Agriac's operations comply with the FSC Forest Stewardship Standard for Thailand and the FSC Smallholder Standard. These standards ensure that forest management practices support biodiversity, maintain high conservation values, and adhere to social and environmental sustainability requirements. Through this framework, Agriac helps smallholders sustainably manage their plantations while contributing to the protection of Thailand's natural resources.



1.2 Purpose and Scope of the Management Plan

The company operates with a strong foundation in sustainability, guided by three key principles: environmental, social, and economic. These principles are outlined as follows:

1. Environmental Management

Forest management must prioritize environmental protection, comply with relevant laws and international agreements, and maintain the balance of biodiversity. This includes protecting natural resources such as wildlife, forests, and water, and ensuring the proper use, storage, and disposal of chemicals like pesticides and fertilizers.

2. Social Management

The company is committed to helping local communities benefit from forest management in the long term. This involves adhering to laws and agreements, ensuring safety, listening to the concerns of communities, smallholders, contractors, and stakeholders, while also providing education and collaboration opportunities for all involved sectors.



3. Economic Management

Forest management should generate fair and sustainable economic returns, focusing primarily on income from latex, with secondary revenue from rubberwood. The goal is to ensure efficiency and fairness in forest operations, while maintaining transparency and sustainability.

Thai Laws and Regulations Involved with FSC Activities under EUDR (European Union Deforestation Regulation)

1. Land Tenure, Management, and Harvesting Rights

- National Reserved Forests Act, B.E. 2507 (No. 4) B.E. 2559
- Forest Plantation Act, B.E. 2535 (No. 2) B.E. 2558
- Forest Act, B.E. 2484 (No. 8) B.E. 2562
- National Land Policy Committee Act, B.E. 2562 (2019)
- Rubber Authority of Thailand Act, B.E. 2558 (2015)
- Land and Buildings Tax Act, B.E. 2562 (2019)
- “Ratchaphatsadu” Land Act, B.E. 2518 (1975)
- Community Forest Act, B.E. 2562 (2019)
- Land Lease for Agriculture Act, B.E. 2524 (1981)FSC-STD-THA-01-2024 EN ...

2. Concession Licenses & Harvesting Permits

- National Reserved Forests Act B.E. 2507 (No. 4) B.E. 2559
- Rubber Authority of Thailand Act, B.E. 2558 (2015)
- Forest Plantation Act, B.E. 2535 (No. 2) B.E. 2558
- Community Forest Act B.E. 2562 (2019)FSC-STD-THA-01-2024 EN ...

3. Management Planning & Environmental Protection

- National Park Act, B.E. 2562 (2019)
- Community Forest Act, B.E. 2562 (2019)
- Enhancement and Conservation of the National Environmental Quality Act, B.E. 2535 (1992)
- Land Excavation and Land Filling Act, B.E. 2543FSC-STD-THA-01-2024 EN ...



4. Protected Sites, Species & Biodiversity

- National Park Act, B.E. 2562 (2019)
- Wildlife Conservation and Protection Act, B.E. 2562 (2019)
- Marine and Coastal Resources Management Promotion Act, B.E. 2558 (2015)
- Plant Variety Protection Act B.E. 2542 (1999)
- CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora)FSC-STD-THA-01-2024 EN

5. Social & Labor Laws

- Core labor rights are covered under the **ILO Declaration on Fundamental Principles and Rights at Work (1998)**, which is recognized in FSC standards (e.g., child labor, forced labor, discrimination, freedom of association)FSC-STD-THA-01-2024 EN

6. Due Diligence and Trade Requirements

- Business Registration Act, B.E. 2499 (1956)
- Export and Import of Goods Act, B.E. 2522 (No. 2) B.E. 2558
- Revenue Code Amendment Act (No. 47) B.E. 2561 (2018)FSC-STD-RAP-THA-01-2024

7. Ecosystem Services & Related Rights

- Community Forest Act, B.E. 2562 (2019)
- Enhancement and Conservation of the National Environmental Quality Act, B.E. 2535 (1992)
- National Park Act, B.E. 2562 (2019)
- Wildlife Conservation and Protection Act B.E. 2562 (2019)FSC-STD-RAP-THA-01-2024

8. International Treaties & Agreements

- CITES (Washington Convention)
- United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP)
- International Labour Organization (ILO) ConventionsFSC-STD-THA-01-2024 EN



1.3 Key Highlights for Agriac's 2024-2025 Management Plan

1. Enhanced APP-005 Plantation Inspection Report

- **Environmental Highlights:** Biodiversity and ecosystem monitoring to protect high-conservation-value areas, soil and water conservation measures, and responsible chemical and waste management practices.
- **Social Highlights:** Community awareness by respecting cultural sites, improved welfare tracking for workers and families on-site, and enhanced safety through accident logging.
- **Economic Highlights:** Improved fertilizer calculations based on productive area, pest and disease control measures for cost-effective management, and resource efficiency for sustainable production.

2. Enhanced EUDR Compliance within TRAZTRU System

- **Traceability and Transparency:** Full traceability from farm to export to meet EUDR due diligence standards.
- **Deforestation and Land-Use Monitoring:** Satellite and GIS integration for real-time deforestation tracking.
- **Compliance Documentation:** Automated EUDR-compliant reports and secure storage for regulatory audits.
- **Risk Assessment :** Report for evaluating environmental and social compliance risks across plantations.

3. Strategic Stakeholder Collaboration

- Focus on partnerships for sustainability skills development, soil and fertilizer improvement, sustainable harvesting practices, and carbon credit exploration in rubber plantations.
- Collaboration in GIS and satellite imagery to enhance data layers and alignment with FSC and EUDR regulations.

4. FSC Standards Update

- Compliance with **FSC-STD-THA-01-2024 EN** and **FSC-STD-RAP-THA-01-2024 Plantations EN**, effective May 1, 2024, for smallholder plantations in Thailand.
- Integration of FSC Principles & Criteria Version 5-2, reinforcing sustainable management, social responsibility, and compliance.

5. Addition of New Products

- **Eco Harvest Honey:** Provides income diversification, enhances biodiversity, and supports ecosystem health in FSC-certified rubber plantations.
- **Trang Pepper:** Cultivated during non-tapping months for additional income, aligning with FSC guidelines for land efficiency and sustainability.



6. Expanded Operational Area and define Management Unit by province perspective

The following table summarizes the operational areas, detailing the total area in hectares (ha) and rai, the number of individual plots, and the number of Forest Management Units (FMUs) under management across key provinces. It is important to note that Phangnga is the latest addition to our operations as a new recruit area.

Management unit	Number of FMU	Number of smallholder	Total area (rai)	total area (HA)	Operation Area (Rai)	Operation Area (HA)
krabi	513	417	5570.80	891.3	4,077.25	652.36
Nakhon si thammarat	2,384	1,810	20323.87	3,251.8	17,868.42	2,858.95
Phangnga*	199	140	2576.89	412.3	2,135.00	341.60
Surat Thani	1,135	812	16499.12	2,639.9	13,467.72	2,154.84
Trang	714	434	6370.96	1,019.4	5,222.37	835.58
Grand Total	4,945	3,613	51341.63	8,214.7	42,770.76	6,843.32

2. Scope of Forest Management

This management plan applies to all forest and rubber plantation areas under Agriac's. Our approach integrates sustainable rubber production with forest conservation efforts, working in collaboration with smallholders, local communities, government authorities and other Stakeholders .

2.1 Overview

- The forest management area encompasses FSC-certified rubber plantations managed under a **Type I Group FMU-SLIMF** model, specifically catering to smallholders in Thailand.
- Operations align with updated FSC standards, including **FSC-STD-THA-01-2024 EN** and **FSC-STD-RAP-THA-01-2024 Plantations EN**. These standards govern smallholder practices, focusing on environmental, social, and economic sustainability while ensuring compliance with EUDR regulations.
- MU this year will be grouped as per provincial area.



2.2 Forest Land Composition

- **Rubber Plantations:** The primary area, dedicated to sustainable rubber production, covers rubber plantations managed under FSC certification.

Number of FMU	total area (HA)	Total area (rai)	Operation Area (Rai)	Operation Area (HA)	Number of smallholders	No of MU
4,945	8,214.66	51,341.63	42,770.76	6,843	3,613	5

- **Dual-Use Zones:** Smallholders are encouraged to utilize plantation corners for supplementary NTFP cultivation, such as *Eco Harvest Honey* and *Trang Pepper*, enhancing land productivity and biodiversity without disrupting primary operations.

2.3 Management Objectives and Certification Standards

- The management plan addresses sustainable forest stewardship in line with the **Principles & Criteria Version 5-2**, emphasizing biodiversity conservation, ecosystem health, and local economic development.
- Smallholder operations include mixed land use, where agroforestry practices incorporate *Trang Pepper* and *Eco Harvest Honey*, aligning with both FSC and EUDR requirements.

2.4 Compliance and Monitoring

- **TRAZTRU System:** All forest management activities are monitored within TRAZTRU for real-time traceability, land-use tracking, and compliance with FSC and EUDR requirements.
- **APP-005 Inspections:** Plantation inspections are conducted using the updated APP-005 report, assessing biodiversity, soil and water conservation, community engagement, and economic resource use.
- **Internal Monitoring :** Ensure all the practice have been done according to plan and standard .



3. Management Objectives

3.1 Environmental Objectives

- **Sustainable Forest Stewardship:** Prioritize environmentally sustainable practices that maintain soil quality, preserve water resources, and support biodiversity within rubber plantations.
- **Biodiversity and Habitat Conservation:** Protect and enhance habitats for endangered species, implement ecosystem monitoring, and integrate dual-use zones, such as areas for *EcoHarvest Honey* production.
- **Soil and Water Conservation:** Conduct regular soil testing and implement site-specific fertilizer application to optimize soil health and reduce chemical runoff, in line with RAOT standards.
- **Minimizing Environmental Impact:** Reduce environmental impacts from plantation activities by following updated APP-005 monitoring for erosion control, invasive species, and chemical use.

3.2 Social Objectives

- **Community and Cultural Respect:** Foster positive relationships with local communities by respecting legal and customary rights, and recognizing culturally significant areas near plantations.
- **Local Economic Support:** Strengthen community engagement through economic initiatives, including *Trang Pepper* cultivation and *EcoHarvest Honey* production, offering additional income sources to smallholders.
- **Worker and Family Welfare:** Ensure worker safety, track accident history, and support the well-being of families residing on-site, aligned with responsible plantation management.
- **Skill Development and Knowledge Sharing:** Provide smallholders with training on sustainable agricultural practices, focusing on carbon credit initiatives, advanced harvesting techniques, and sustainable fertilizer use.



3.3 Economic Objectives

- **Income Diversification for Smallholders:** Introduce *Trang Pepper* and *EcoHarvest Honey* as alternative income streams during non-tapping months, maximizing the economic potential of plantation land.
- **Efficient Resource Management:** Improve productivity and cost efficiency by optimizing fertilizer usage based on productive area and pest control through APP-005 data collection.
- **Compliance and Market Access:** Maintain high standards in compliance with FSC and EUDR guidelines, ensuring legal access to European markets.
- **Long-Term Economic Sustainability:** Support economic sustainability through long-term harvest planning, accurate data management with TRAZTRU, and pursuing carbon credit opportunities for plantations.

Full detail

[:https://docs.google.com/spreadsheets/d/1i4BqiTXPa7ftrh4kShhnr5JzR1VToVRN17A7sbtME/edit?usp=share link](https://docs.google.com/spreadsheets/d/1i4BqiTXPa7ftrh4kShhnr5JzR1VToVRN17A7sbtME/edit?usp=share_link)

3.4 Budget for objectives

	Year 2024		Year 2025	Year 2026	Year 2027	Year 2028
Environment	1,330,025	49%	2,421,601	2,784,493	3,202,314	3,682,752
Social	139,500	5%	253,990	292,052	335,875	386,266
Economic	1,254,537	46%	2,284,159	2,626,454	3,020,561	3,473,731
	2,724,062		4,959,750	5,703,000	6,558,750	7,542,750

Full detail

[:https://docs.google.com/spreadsheets/d/1i4BqiTXPa7ftrh4kShhnr5JzR1VToVRN17A7sbtME/edit?usp=share link](https://docs.google.com/spreadsheets/d/1i4BqiTXPa7ftrh4kShhnr5JzR1VToVRN17A7sbtME/edit?usp=share_link)



4. Risk Assessment*2024

Based on the thorough review of AGRIAC's Forest Management Plan, here's an enhanced risk assessment that aligns with the management objectives outlined

Key:

- **Likelihood (1-5):** 1 = Rare, 5 = Almost certain
- **Consequence (1-5):** 1 = Minor, 5 = Catastrophic
- **Risk Level:** Low (1-6), Moderate (7-14), High (15-25)

Objective	Potential Risk	Likelihood (1-5)	Consequence (1-5)	Risk Score (Likelihood x Consequence)	Risk Level	Mitigation Measures
1 Environmental Objectives						
Sustainable Forest Stewardship	Depletion of soil quality due to over-fertilization	2	5	10	Moderate	Conduct regular soil testing and use precision fertilizer application in line with RAO standards.
Biodiversity and Habitat Conservation	Habitat disruption from plantation expansion	2	5	10	Moderate	Implement monitoring programs and create dual-use zones for biodiversity.
Soil and Water Conservation	Contamination from chemical runoff	2	5	10	Moderate	Optimize fertilizer use and integrate buffer zones near water bodies.
Minimizing Environmental Impact	Spread of invasive species	3	3	9	Moderate	Monitor and control invasive species through periodic APP-005 assessments.
2 Social Objectives						
Community and Cultural Respect	Disruption of culturally significant areas	2	4	8	Moderate	Engage with local communities to identify and protect cultural sites.
Local Economic Support	Limited community engagement due to operational focus	3	3	9	Moderate	Strengthen partnerships and conduct regular community meetings.
Worker and Family Welfare	Workplace accidents or unsafe conditions	2	5	10	Moderate	Maintain comprehensive safety protocols and track accident history.
Skill Development and Knowledge Sharing	Lack of training uptake by smallholders	3	3	9	Moderate	Offer tailored, accessible training programs and incentives for participation.
3 Economic Objectives						
Income Diversification for Smallholders	Dependence on a single product market	3	5	15	High	Diversify product offerings, such as EcoHarvest Honey and Trang Pepper.
Efficient Resource Management	Inefficiency in fertilizer use leading to increased costs	3	3	9	Moderate	Use APP-005 data to optimize resource allocation.



Compliance and Market Access	Non-compliance with FSC and EUDR standards	2	5	10	Moderate	Implement strict internal audits and use the TRAZTRU system for compliance tracking.
Long-Term Economic Sustainability	Market fluctuations affecting profitability	3	5	15	High	Pursue carbon credit opportunities and diversify income streams to buffer against market risks.

5. Property Overview

The forest areas managed by Agriac are located across various regions in Southern Thailand, with the primary use being rubber production, often integrated with palm oil or other agricultural activities. Management is focused on small-scale operations, typically less than 20 hectares, and includes diverse land use such as productive rubber plantations, residential spaces, food cultivation areas, and communal leisure spaces.

Agriac’s management areas feature a unique, community-driven structure. Even though individual land title deeds define borders, operationally, plots often blend into one another without distinct boundaries. Smallholders rely on mutual agreements and traditional practices to define operation areas, including shared paths for rubber tapping and transportation. This interconnected setup embodies the strong cultural and communal ties within the smallholder community, where agricultural production and social cohesion are closely linked. The operational framework thus not only fosters economic activity but also upholds community values and cultural heritage, creating a holistic model of land use and sustainable development.

The operation area are as following *2024

Number of FMU	total area (HA)	Total area (rai)	Operation Area (Rai)	Operation Area (HA)	Number of smallholders	No of MU
4,945	8,214.66	51,341.63	42,770.76	6,843	3,613	5

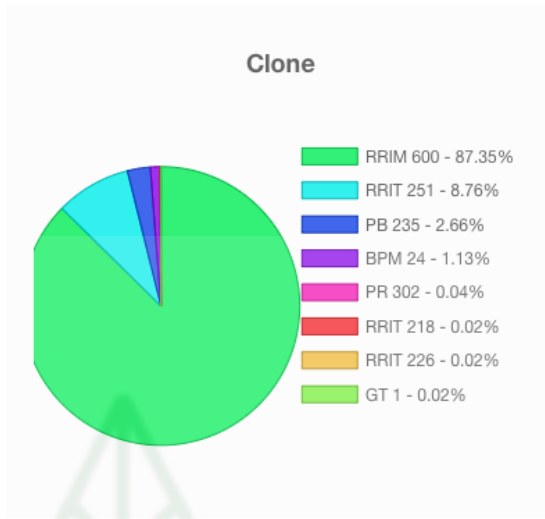


Gender Male : Female = 1586 : 2032 with 100 % are local

Average Age of smallholder : 51.66 Yr old

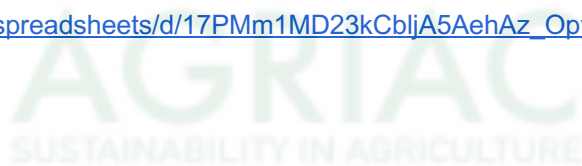
Average Age of Plantation : 19.8 yr

Clone distribution



ค่าบด (บด/ตาราง)	2019	2020	2021	2022	2023	2024	2025	2026	2027
จำนวนไร่ (Rai)	8055	8055	8055	20509	20691	51,342	100,000	150,000	200,000
Production Capacity (Kg/Rai/Yr)	304	304	304	304	304	304	304	304	304
Forecast Capacity (Kg/Yr)	2,448,720	2,448,720	2,448,720	6,234,736	6,290,091	15,607,856	30,400,000	45,600,000	60,800,000
Actual capacity (Kg/Yr)	*ยังไม่เริ่มดำเนินการ	*ยังไม่เริ่มดำเนินการ	1,250,526.24	893,849.84	1,555,627	9,378,071			
% of capacity operation	NA	NA	51.07%	14.34%	24.73%	60.09%			

https://docs.google.com/spreadsheets/d/17PMm1MD23kCbljA5AehAz_OpyLDe13BXmilfXOMVVQA/edit?usp=sharing





5.1 Explanation of Data

1. Geographical Scope:

- The operational area covers five provinces: Krabi, Nakhon Si Thammarat, Phangnga, Surat Thani, and Trang.
- These provinces represent the key geographic distribution of our FSC-certified smallholder operations.

2. Total Area and Units:

- The total managed area is **8,214.7 hectares**, equivalent to **51,341.63 rai**.
- Within this area, there are **4,945 individual plots** grouped into **3,613 FMUs**.

3. FMU Structure:

- Forest Management Units (FMUs) are organized to meet FSC compliance standards. Each FMU includes one or more plots, and management practices are tailored to the size and characteristics of the plots in each FMU.

4. Province-Specific Details:

- **Krabi:** Small-scale operations with 891.3 ha and 417 FMUs.
- **Nakhon Si Thammarat:** Largest area of operations, covering 3,251.8 ha across 1,810 FMUs.
- **Phangnga:** Smallest area, managing 412.3 ha across 140 FMUs.
- **Surat Thani:** Significant operations, with 2,639.9 ha and 812 FMUs.
- **Trang:** Medium-scale operations, covering 1,019.4 ha and 434 FMUs.

5. Purpose of Distribution:

- This distribution reflects our commitment to manage forest resources sustainably and efficiently while meeting FSC requirements for

	Number of plot	Number of FMU	Total area (rai)	total area (HA)	Operation Area (Rai)	Operation Area (HA)
krabi	513	417	5570.80	891.3	4,077.25	652.36
Nakhon si thammarat	2,384	1,810	20323.87	3,251.8	17,868.42	2,858.95
Phangnga*	199	140	2576.89	412.3	2,135.00	341.60
Surat Thani	1,135	812	16499.12	2,639.9	13,467.72	2,154.84
Trang	714	434	6370.96	1,019.4	5,222.37	835.58
Grand Total	4,945	3,613	51341.63	8,214.7	42,770.76	6,843.32



5.2 Integration of Phangnga as a New Operational Area

Phangnga is the most recent addition to our FSC-certified operations, representing a significant step in expanding our sustainable forestry practices. This new recruit area aligns with our strategic goals to involve more smallholders and promote sustainability across Thailand. The operation are under Cooperative - Nai Tone

Overview of Phangnga

- Total Area Managed: 412.3 hectares (or 2,576.89 rai)
- Number of Plots: 199
- Number of Forest Management Units (FMUs): 140

Phangnga's inclusion adds diversity to our operations, with a focus on integrating smallholder plots into the FSC certification framework. The area contributes to our overall mission of enhancing sustainable forestry while providing economic and environmental benefits to local communities.

Key Objectives for Phangnga

1. Baseline Assessment:
 - Conduct environmental and social assessments to establish the current status of forestry practices in Phangnga.
 - Identify High Conservation Value (HCV) areas and develop management strategies accordingly.
2. Onboarding and Training:
 - Educate smallholders on FSC standards, focusing on compliance with legal, social, and environmental requirements.
 - Provide resources and training for sustainable forest management and monitoring.
3. Infrastructure Development:
 - Establish operational frameworks, including traceability systems, to integrate Phangnga's outputs into the overall supply chain.
 - Ensure logistical support for certification audits and compliance monitoring.
4. Community Engagement:
 - Build relationships with local stakeholders, including smallholder groups, communities, and government bodies.
 - Promote community participation in decision-making and sustainable forestry practices.



5. Sustainability Goals:

- Enhance biodiversity conservation and reduce environmental impacts in line with FSC principles.
- Foster economic resilience among smallholders through sustainable practices.

Significance of Phangnga

The addition of Phangnga reflects our commitment to expanding sustainable forestry practices while supporting smallholder livelihoods. The area presents an opportunity to demonstrate how new regions can successfully adopt FSC principles, serving as a model for future expansions.

6. Description of Forest Resources

6.1 Soil Resources

6.1.1 Existing Condition

The soils across our management areas are primarily lateritic, requiring careful management to prevent erosion, particularly in steeply sloped regions.

Province	Soil Type	Challenges	Source
Surat Thani	Predominantly lateritic soils with moderate fertility, suitable for rubber cultivation but prone to erosion, especially on slopes.	Moderate nutrient content requires additional potassium and nitrogen fertilization to maintain productivity.	Soil Resource Status Report, LDD (2023)
Trang	Mixed sandy loam and clay soils. Loamy areas provide good drainage; clay-heavy areas retain excess water, risking root rot.	Managing water retention is critical, with erosion risks on slopes; preventing soil degradation during rainy seasons is necessary.	Soil Resource Status Report, LDD (2023)
Nakhon Si Thammarat	Rich alluvial and loam soils near riverbanks; erosion-prone on hillsides. Fertility is high in alluvial zones, supporting rubber and intercrops.	Requires balanced fertilization for sustained productivity; erosion prevention measures are needed in hillside regions.	Soil Resource Status Report, LDD (2023)



Krabi	Lateritic and sandy soils with good drainage, though nutrient-poor compared to loamy soils. Supports rubber and agroforestry but prone to leaching.	Nutrient leaching is common, especially in high-rainfall areas; periodic soil amendment is essential.	Soil Resource Status Report, LDD (2023)
Phang Nga	Sandy loam soils with good drainage, though acidic. High erosion risk on slopes due to monsoonal rains.	Soil acidity may require lime application, and erosion control is necessary, particularly on steep slopes.	Soil Resource Status Report, LDD (2023)

6.1.2 Risk assessment and Mitigation on Soil Resources

Risk Factor	Likelihood	Consequence	Risk Score	Risk Level	Mitigation Actions	Provinces
Erosion on Sloped Areas	Possible (3)	Moderate (3)	6	Moderate	Continue contour planting, terracing, and vegetation cover. FSC monitoring practices help reduce erosion risk. Conduct regular assessments.	Surat Thani, Nakhon Si Thammarat, Phang Nga
Nutrient Depletion	Possible (3)	Moderate (3)	6	Moderate	Conduct soil testing as per FSC guidelines, adjust fertilizer applications according to RAOT and FSC standards, and apply organic amendments for soil health.	Trang, Krabi, Surat Thani
Soil Acidification in Low-pH Regions	Unlikely (2)	Moderate (3)	5	Moderate	Apply lime to balance pH levels, particularly in acidic areas. Regular pH monitoring as part of FSC certification	Phang Nga



					reduces likelihood of soil acidification issues.	
Waterlogging in Heavy Clay Areas	Possible (3)	Moderate (3)	6	Moderate	Implement drainage channels and minimal tillage practices in clay-rich regions. FSC guidelines support sustainable soil structure management practices.	Trang
Soil Compaction	Unlikely (2)	Minor (2)	4	Low	Use minimal tillage and organic materials to prevent compaction. FSC practices help maintain soil porosity, reducing compaction risk.	Trang, Phang Nga
Nutrient Leaching in Sandy Soils	Possible (3)	Moderate (3)	6	Moderate	Apply compost and bio-fertilizers to improve soil structure and moisture retention. Regular monitoring per FSC standards reduces likelihood.	Krabi, Phang Nga, Surat Thani
Loss of Soil Organic Matter	Unlikely (2)	Minor (2)	4	Low	Continue applying compost and bio-fertilizers to enhance soil organic matter. FSC standards promote regular soil health assessments.	Krabi, Trang



6.1.3 Soil Conservation Practices

Given the overall outlook on soil and water conservation, specific erosion control measures have been implemented, such as terracing in high-risk areas and cover cropping. Regular soil health assessments will also be conducted as per APP-005 updates.

Conservation Practice	Description	Provinces
Erosion Control	Contour Planting and Terracing: Applied on sloped terrains to prevent soil erosion. Cover Crops: Planting cover crops to stabilize soil and reduce runoff.	Prevents soil erosion and maintains soil structure.
Soil Fertility Management	Nutrient Management: Conduct regular soil testing to determine specific nutrient needs. Precision Fertilization: Apply fertilizers based on guidelines and soil needs.	Prevents over-application and promotes soil health.
Organic Amendments	Compost and Bio-fertilizers: Enhance soil organic matter, moisture retention, and root health.	Improves moisture retention and reduces nutrient leaching.
Buffer Zones	Riparian Buffers: Vegetation zones near water bodies	Protects water quality and prevents sediment deposition.
Integrated Weed and Pest Management	Sustainable Pest Control: Minimizes pesticide use and supports natural pest control methods.	Maintains soil health and minimizes chemical impact.

6.2 Species Composition

- **Current Flora and Fauna:** The forested areas host a mix of rubber trees (*Hevea brasiliensis*), native hardwoods, and a variety of shrubs and ground cover plants. In addition, certain areas contain high-value conservation species, including endangered wildlife such as hornbills and macaques.
- **Biodiversity Enhancements:** Aligning with biodiversity objectives, Agriac promotes “Biodiversity Champion Farms” to encourage habitat conservation within plantations. Efforts to monitor and enhance biodiversity include defining a biodiversity score in collaboration with stakeholders and identifying ecosystem services that support local species.



6.2.1 Risk assessment for species composition

Risk Factor	Likelihood	Consequence	Risk Score	Risk Level	Mitigation Actions	Provinces Affected
Loss of Endangered Species Habitat	Unlikely (2)	Minor (2)	4	Low	Monitor biodiversity and maintain natural habitats to support local species, even though no endangered species have been identified in operation areas.	All Provinces
Biodiversity Decline Due to Monoculture	Unlikely (2)	Moderate (3)	5	Low	Continue promoting biodiversity within operations, including intercropping and the establishment of "Biodiversity Champion Farms" to encourage diverse habitat.	Surat Thani, Nakhon Si Thammarat, Krabi
Habitat Fragmentation	Possible (3)	Minor (2)	4	Low	Preserve buffer zones around high-conservation-value areas, and align plantation layouts to minimize habitat disruption.	Phang Nga, Trang, Krabi
Invasive Species Encroachment	Unlikely (2)	Minor (2)	4	Low	Monitor and control invasive species in collaboration with local conservation groups; establish early detection and rapid response measures for invasive species management.	Surat Thani
Reduction of Ecosystem Services	Unlikely (2)	Moderate (3)	5	Moderate	Define and monitor biodiversity scores with stakeholders; enhance ecosystem services such as pollination and pest control by supporting local flora and fauna diversity.	All Provinces
Risk of Over-Use of Agrochemicals	Possible (3)	Minor (2)	4	Low	Implement sustainable pest control practices, reduce chemical usage, and encourage natural pest predators within biodiversity champion farms.	Phang Nga, Trang, Krabi

6.3 Water Resources

- Natural Water Features:** Rivers, streams, and ponds are interspersed throughout the plantation areas, necessitating protective riparian zones to maintain water quality and support aquatic life.



- **Water Resource Management:** Following guidance on sustainable water use, buffer zones have been established around water bodies to minimize erosion and runoff. Monitoring systems are in place to ensure compliance especially for pesticide usage near water sources.

6.3.1 Risk Assessment for Water Resources

Risk Factor	Likelihood	Consequence	Risk Score	Risk Level	Mitigation Actions	Provinces
Water Quality Degradation	Unlikely (2)	Moderate (3)	5	Low	Maintain buffer zones around water bodies to prevent natural sediment or organic runoff from entering water sources.	Surat Thani, Nakhon Si Thammarat, Krabi, Phang Nga
Erosion and Sedimentation in Water Bodies	Unlikely (2)	Moderate (3)	5	Low	Establish riparian buffers, especially on slopes; regularly monitor erosion-prone areas and stabilize with vegetation as needed.	Trang, Phang Nga
Overuse of Water Resources	Rare (1)	Moderate (3)	4	Low	Regularly monitor water levels to ensure natural water bodies remain unaffected by plantation activities.	Nakhon Si Thammarat, Krabi
Loss of Aquatic Biodiversity	Unlikely (2)	Minor (2)	4	Low	Protect aquatic habitats by maintaining buffer zones and controlling access to sensitive areas.	Nakhon Si Thammarat, Trang, Krabi, Phang Nga

6.4 Additional Aspects

1. Chemical Use and Waste Management

- To address the chemical use, include an overview of the fertilizer and pesticide application practices, including the shift to precision usage and RAOT-recommended practices. Describe waste management strategies, such as designated disposal sites and hazardous material handling protocols, as outlined in [APP-005 report](#)

2. High Conservation Value (HCV) Areas

- Identify areas designated as HCVs, particularly any habitats for rare, threatened, or endangered species. Describe conservation measures in these areas, such as restricting access and enforcing no-logging policies, in line with the updated FSC standards for Thailand.



3. Non-Timber Forest Products (NTFP)

- Mention the inclusion of NTFPs such as Latex, Rubber sheet and Cuplump and also 2024 additional product such as *EcoHarvest Honey* and *Trang Pepper* as part of the plantation's resources, which contribute to economic diversification and biodiversity. Outline the approach to managing NTFP resources sustainably, ensuring minimal impact on rubber tree productivity and ecosystem health.

4. Climate Resilience and Carbon Sequestration Potential

- Given the potential for carbon credit initiatives, outline the plantation's role in carbon sequestration. Describe ongoing efforts to measure and enhance carbon storage capacity through sustainable forestry practices, in line with carbon credit feasibility studies planned for this period.

7. Forest Health and Pest Management

7.1 Forest health overview

Surat Thani

Surat Thani's rubber plantations are situated in areas with relatively stable climatic conditions, promoting consistent rubber yields. The province's forests are rich in biodiversity, with numerous native species that support the ecosystem. However, rubber monoculture can lead to pest challenges. Forest health strategies here emphasize pest management through natural means and soil maintenance to prevent degradation, supporting both forest vitality and rubber production.

Trang

Trang's plantations face a tropical monsoon climate, leading to a longer rainy season and heightened humidity levels, which can attract pests and fungal issues in rubber trees. The forested areas in Trang are part of a biodiverse landscape, with various native flora and fauna that thrive in these conditions. Pest control efforts focus on balancing forest health with local biodiversity preservation, ensuring a healthy plantation ecosystem that coexists with the surrounding natural habitats.

Nakhon Si Thammarat

Nakhon Si Thammarat features a mix of highlands and lowland forests, with regions prone to heavy rainfall and potential soil erosion. This geography fosters rich biodiversity, but it also presents challenges in terms of pest management and soil health. Integrated pest management (IPM) practices are used to reduce pest-related risks while supporting the ecological diversity of the forested areas. Monitoring systems are essential here to maintain the health of both the forest and rubber trees.



Krabi

The lush forests of Krabi are known for their diverse ecosystems, including limestone hills and mangrove forests near the coastline. Rubber plantations here benefit from the rich biodiversity, but the wet climate makes the region vulnerable to pest infestations, particularly in the rainy season. In Krabi, forest health practices emphasize invasive species control and targeted pest management to preserve the ecological balance and enhance productivity within the plantations.

Phang Nga

Phang Nga is characterized by rugged terrain and tropical forests, with high rainfall that supports abundant vegetation. The presence of mangroves and other sensitive ecosystems in coastal areas requires careful management to prevent any adverse impact on the local biodiversity. Forest health practices in Phang Nga involve regular monitoring for invasive species and adherence to FSC-compliant pesticide usage, aiming to preserve the integrity of both the forest and rubber plantation ecosystems.

7.2 Way forward with Forest Health and Pest Management

- **Integrated Pest Management (IPM):** Promote the use of biological controls, natural predators, and resistant tree varieties to manage pests.
- **FSC-Compliant Pesticide Use:** Limit chemical pesticide use to cases where it is absolutely necessary and in compliance with FSC guidelines. We prioritize non-chemical methods whenever possible.
- **Invasive Species Control:** Regularly monitor and remove invasive plant and animal species that threaten local biodiversity.

The organization has developed and implemented mitigation measures to work towards zero accidents, as outlined in the "**Occupational Health and Safety Policy**" and the **member handbook (Section 6.4)**. These measures include regular risk assessments, safety training programs, and provision of personal protective equipment (PPE). Accident data from 2024, recorded during APP-005 site inspections, provides critical insights into areas for improvement.



Based on the 2024 Accident Data:

- **Common Types of Accidents:**
 - **Cuts from tools (e.g., rubber-tapping knives):** Several incidents involved injuries from sharp tools, highlighting the need for enhanced tool safety training.
 - **Falls:** Accidents involving falls on uneven or slippery terrain were also reported.
- **Repetitive Incidents:**

Patterns of similar accidents suggest recurring risks in the work environment, particularly tool handling and terrain-related hazards.
- **Nature of Work:**

The accidents reflect the inherent risks of rubber plantation activities, such as tapping trees with sharp tools and working on challenging terrain.

Mitigation Measures:

1. **Tool Safety Training:**

Enhanced training programs focusing on the safe use of rubber-tapping knives and other tools.
2. **Terrain Management:**

Addressing hazards like slippery or uneven ground, particularly during rainy conditions, through better worksite management.
3. **Communication and Monitoring:**

These measures are communicated internally via meetings, training sessions, and accessible platforms such as Facebook and Line@. Accident data is reviewed regularly to identify trends and inform proactive interventions.

8. Harvesting and Yield Management

8.1 Wood and Timber

8.1.1 Annual Allowable Cut (AAC)

The AAC is calculated based on growth rates, ensuring that the forest's productive capacity is maintained. We adhere to a harvesting cycle that allows for regeneration and prevents overharvesting.



8.1.2 Key Inputs for AAC Calculation

1. **Total Forest Area (TFA):** The total productive forest area available for harvesting.
 - Measured in hectares (ha).
2. **Growth Rate or Mean Annual Increment (MAI):** The average volume of wood produced annually by the forest.
 - Measured in cubic meters per hectare per year (m³/ha/year).
3. **Rotation Age:** The number of years required for the forest to mature for harvesting.
 - This depends on species and site conditions.
4. **Stocking Density:** The volume of wood per hectare currently available (often assessed through an inventory).
 - Measured in cubic meters per hectare (m³/ha).
5. **Harvesting Cycle:** The planned cycle for reharvesting a specific area.
 - Usually specified in years.
6. **Sustainability Adjustment Factor (SAF):** A factor to account for natural losses, conservation areas, and other considerations, ensuring sustainable practices.

8.1.3 Formula for AAC Calculation

$$AAC = TFA \times MAI \times SAF$$

Where:

- **TFA:** Total Forest Area available for harvesting.
- **MAI:** Mean Annual Increment.
- **SAF:** Sustainability Adjustment Factor, typically less than 1 (e.g., 0.85 for 15% conservation adjustment).

The **Mean Annual Increment (MAI)** for rubber plantations typically varies depending on the following factors:

1. **Age of the Plantation:**
 - Younger plantations (below 10 years): Low MAI due to the focus on vegetative growth.
 - Mature plantations (10–30 years): Higher MAI as they reach optimal productivity.
 - Over-aged plantations (above 30 years): Declining MAI due to reduced growth rates.



2. Site Quality:

- High-quality sites (good soil fertility, adequate water, and proper management): MAI can range from **5–15 m³/ha/year**.
- Average-quality sites: MAI is around **3–7 m³/ha/year**.
- Poor-quality sites: MAI is typically less than **3 m³/ha/year**.

3. Management Practices:

- Well-managed plantations with thinning, fertilization, and pest control tend to have higher MAI.
- Mixed-use systems (rubber and timber) may yield additional biomass.

4. Clonal Variations:

- Improved rubber clones can contribute to higher MAI (e.g., certain clones developed for both latex and timber production).

8.1.3 Typical Range of MAI for Rubber Plantations:

- **Timber-Focused Rubber Plantations:** 8–12 m³/ha/year.
- **Latex and Timber Mixed Production:** 4–8 m³/ha/year.

For calculation purposes, our plantation is well-managed and aimed at latex production, an estimated MAI of **6 m³/ha/year** is reasonable.

2024 Calculation :

Total Forest Area (TFA): 8,214.66 hectares

Mean Annual Increment (MAI): 6 m³/ha/year

Sustainability Adjustment Factor (SAF): 0.1

The **Annual Allowable Cut (AAC)** is calculated as follows:

$$AAC = TFA \times MAI \times SAF$$

Substituting the given values:

$$AAC = 8,214.66 \text{ ha} \times (6 \text{ m}^3/\text{ha} \cdot \text{year}) \times 0.1 = 4,928.796 \text{ m}^3/\text{year}$$

Therefore, the **Annual Allowable Cut** is approximately **4,928.80 m³/year**. However in 2024 there is **NO** harvesting of the timber .



Low-Impact Logging: Heavy machinery is limited to designated access routes, and we use techniques that reduce soil compaction and disturbance to surrounding habitats.

However in 2024 there is **NO** harvesting of the timber .

8.2 Rubber Latex (NTFP)

8.2.1 Plantation Area and Production Capacity:

ตำบล (แปลงยาง)	2019	2020	2021	2022	2023	2024	2025	2026	2027
จำนวนไร่ (Rai)	8055	8055	8055	20509	20691	51,342	100,000	150,000	200,000
Production Capacity (Kg/Rai/Yr)	304	304	304	304	304	304	304	304	304
Forcast Capacity (Kg/Yr)	2,448,720	2,448,720	2,448,720	6,234,736	6,290,091	15,607,856	30,400,000	45,600,000	60,800,000
Actual capacity (Kg/Yr)	*ยังไม่เริ่มดำเนินการ	*ยังไม่เริ่มดำเนินการ	1,250,526.24	893,849.84	1,555,627	9,378,071			
% of capacity operation	NA	NA	51.07%	14.34%	24.73%	60.09%			

Expansion of Plantation Area: The rubber plantation area is projected to increase significantly, from 8,055 rai in 2019 to 200,000 rai by 2027.

Production Capacity: The production capacity estimation per rai expect remains constant at 304 Kg/Rai/Year throughout the period,

8.2.2 Observations cost ,revenue ,profitability and yield

1. Cost Trends

- **2020–2024:** Total costs fluctuated slightly, with a noticeable decrease in **2024**.
 - Labor costs remained relatively stable but declined in percentage contribution due to reduced external labor dependency.
 - Material costs (fertilizers and pesticides) varied, reflecting market price adjustments, especially for chemical fertilizers.
 - Transportation and fuel costs remained a significant portion of operational expenses, but efficiency improved over time.



2. Revenue Trends

- **Revenue increased significantly from 2020 to 2024**, primarily driven by:
 - **Increased latex prices:** Prices grew from 37 THB/kg in 2020 to 65 THB/kg in 2024.
 - **Slight decline in yield (2023–2024):** Yields dropped from 237 kg/rai in earlier years to 226 kg/rai, likely due to changes in plantation practices or aging trees.

3. Profitability

- **Gross profit margins steadily improved** from 48.32% in 2020 to 75.20% in 2024.
 - The sharp increase in 2024 was due to reduced costs and the highest price per kilogram during the period.

4. Yield and Input Dependency

- **Yield per rai stabilized** at around 226–237 kg/year, showing consistent production practices.
- **Material usage efficiency improved:** Transition to more organic fertilizers and reduced pesticide usage supported sustainability goals.

Ref <https://docs.google.com/spreadsheets/d/1Mp7L2397kJcZiq5Bi3zf2jrQhMKPaUleJhOy89QROQs/edit?usp=sharing>

8.2.3 Forecast vs. Actual Production:

- Operations commenced in 2021 with an actual production of 1,250,526.24 Kg, achieving 51.07% of the forecasted capacity.
- In 2022, actual production was 893,849.84 Kg, which is 14.34% of the forecasted capacity.
- For 2023, actual production increased to 1,555,627 Kg, reaching 24.73% of the forecasted capacity.
- By 2024, actual production rose to 8,857,412 Kg, achieving 56.75% of the forecasted capacity.

9. Conservation Area Management and Intact Forest Landscapes (IFL)

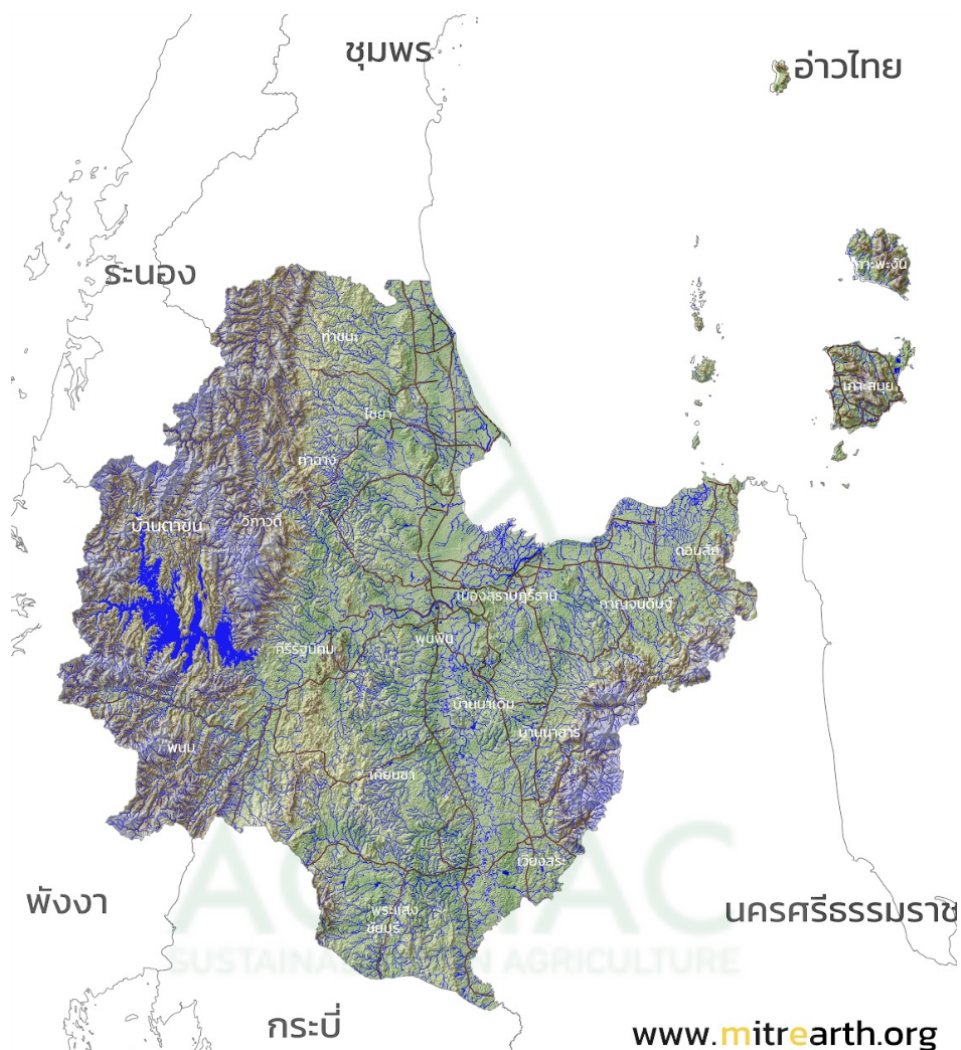
Conservation areas are critical to maintaining environmental integrity. The following areas have been identified and managed accordingly:



9.1 Riparian Zones

Buffer zones of natural vegetation are maintained around all rivers, streams, and ponds to prevent soil erosion and water contamination. These areas also provide habitats for aquatic and terrestrial species.

Surat Thani:



Major Waterways: The Tapi River, Thailand's longest southern river, flows through Surat Thani, creating extensive riparian zones.



Riparian Characteristics: These zones are characterized by dense vegetation, including mangroves and freshwater swamp forests, which are vital for flood mitigation and habitat provision.

Trang:

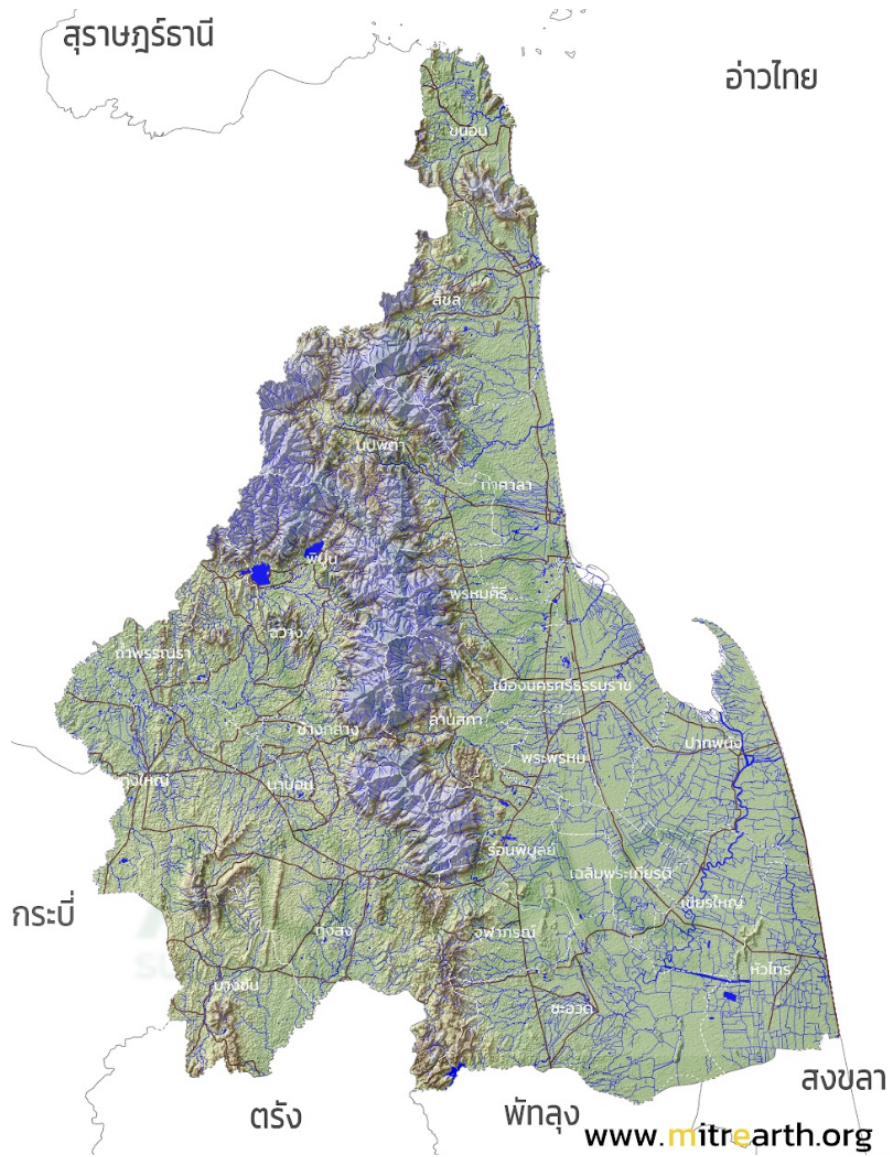


Major Waterways: The Trang River and its tributaries traverse the province, forming significant riparian areas.

Riparian Characteristics: The zones support diverse ecosystems, including peat swamp forests and freshwater marshes, essential for maintaining regional biodiversity.



Nakhon Si Thammarat:



Major Waterways: The Tapi River's tributaries and the Pak Phanang River system contribute to the province's riparian zones.



Riparian Characteristics: These areas are rich in mangrove forests and nipa palm stands, crucial for coastal protection and supporting fisheries.

Krabi:

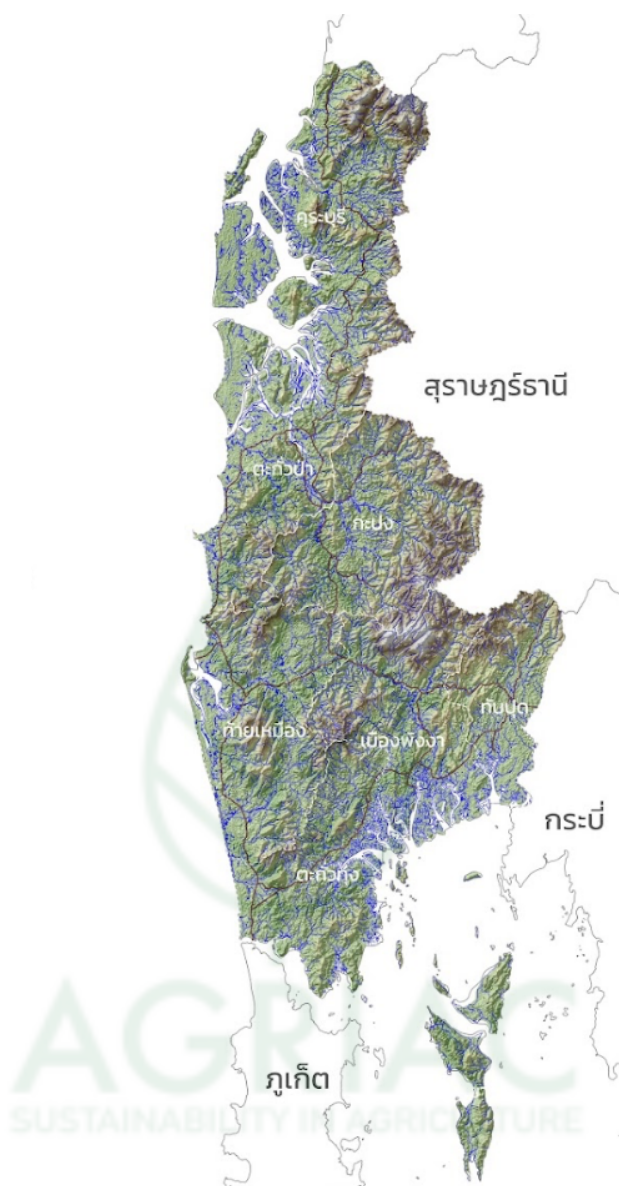


Major Waterways: The Krabi River and its network of streams create extensive riparian zones.

Riparian Characteristics: The zones are dominated by mangrove forests, which play a key role in shoreline stabilization and provide nurseries for marine life.



Phang Nga:



Major Waterways: The Phang Nga River and its tributaries form the province's riparian zones.

Riparian Characteristics: These areas are characterized by dense mangrove forests and limestone karst formations, supporting unique ecosystems and protecting against coastal erosion.



9.2 High Conservation Value Forests (HCVFs)

Areas that support endangered species or rare ecosystems are designated as HCVFs. These areas are excluded from commercial activities and are actively monitored to ensure their protection.

9.3 Erosion-Prone Areas

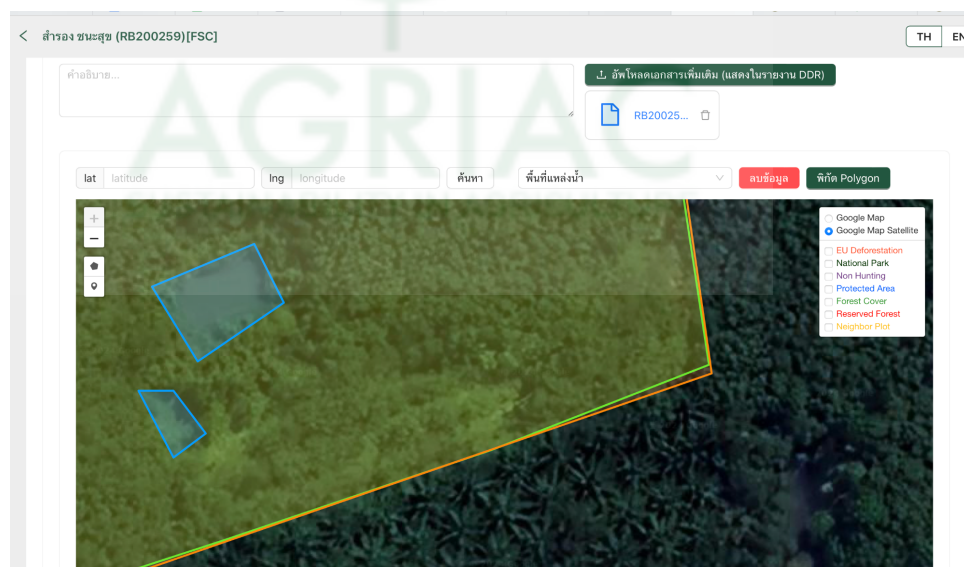
Slopes and degraded lands prone to erosion are set aside for reforestation and restoration efforts, primarily using native species to stabilize the soil.

9.4 Wildlife Corridors

Strips of natural forest are preserved to allow the movement of wildlife between habitats, ensuring species migration and genetic diversity.

The possibility of HCVFs now updated in the TRAZTRU system in 7 layers upon the recruiting and approval of the plantation.

1. EU deforestation Layer
2. National Park
3. Non hunting area
4. Protected area
5. Forest cover
6. Reserved forest
7. Neighbor plot overlap





Therefore at the recruiting of the plantation we already understand the location of the plantation neighbor.

During recruiting there will be also the questionnaire to be asked to understand the HVCS of the area after that the survey (APP-005) will take place to have better understanding on the landscape , risk , Labour an human right , operation practice and HCVs

10. Indigenous Cultural Landscapes

Indigenous Cultural Landscapes: Engagement with local indigenous communities will be strengthened to recognize and incorporate traditional knowledge and cultural sites. This includes consulting with community leaders and rights holders to map and protect areas of cultural significance."

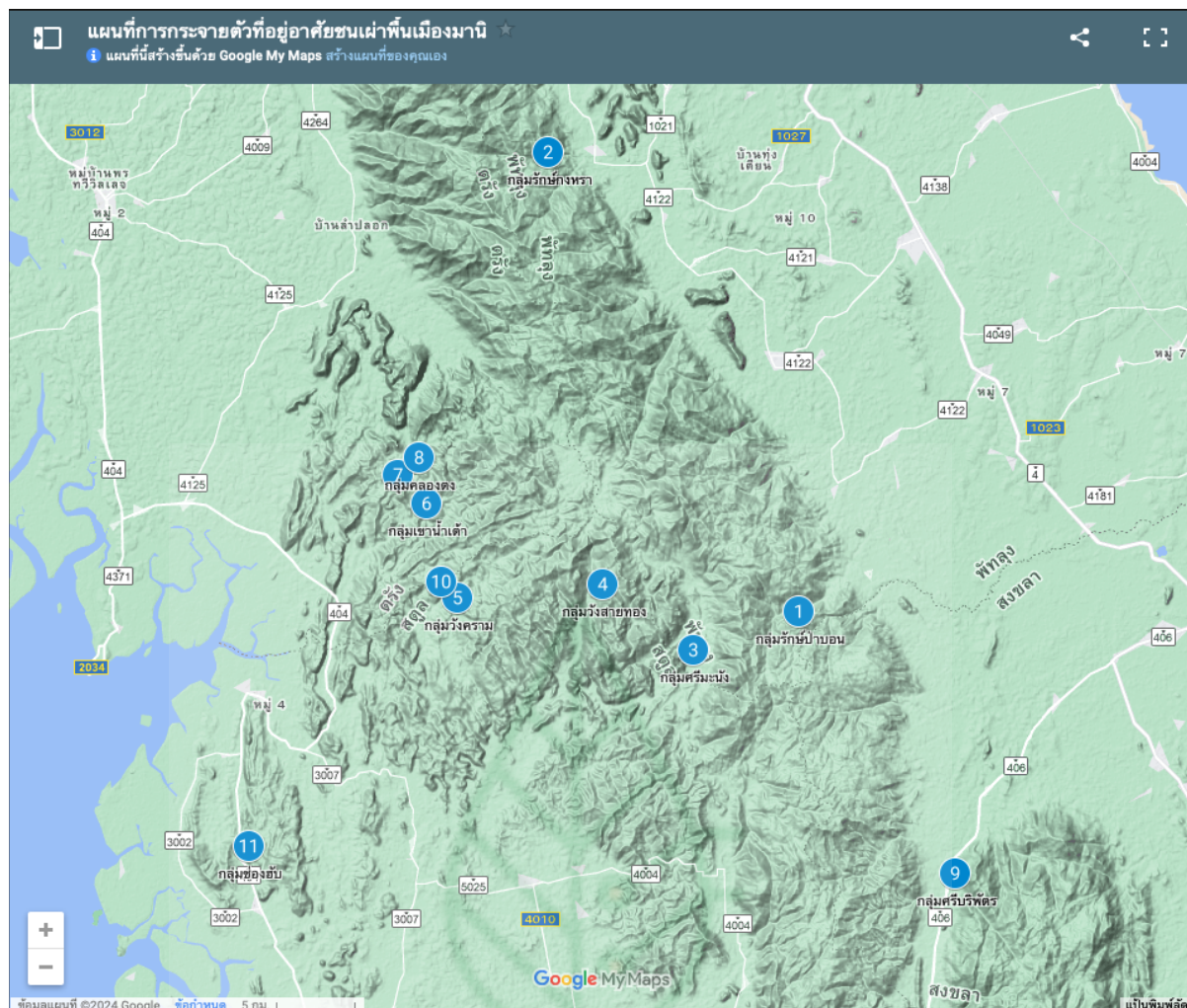
The **Maniq people**, also known as the **Sakai** or **Negrito**, are an indigenous group traditionally living in the forested regions of southern Thailand. The Maniq are part of the **Semang** group, which is one of the oldest surviving groups of hunter-gatherers in Southeast Asia. They have historically lived in small, nomadic groups, depending heavily on the forest for food, shelter, and spiritual practices.

The primary areas where the **Maniq** people are found are located in the southern provinces of **Trang, Phang Nga, Yala, Narathiwat**, and parts of **Satun**, particularly within the **Titwangsa Mountain Range** and the **Banthat Mountain Range**. These forested areas are critical to their way of life, as they sustain their traditional hunting, gathering, and spiritual practices. The Maniq people have a deep cultural and historical connection to these forest landscapes, which are considered vital for their survival and cultural identity.

10.1 Presence of Maniq People in AGRIAC's Operational Area

While **AGRIAC's operational areas** span across provinces such as **Surat Thani, Trang, Nakhon Si Thammarat, Krabi** and **Phang Nga** our current field reports and operations have not identified the presence of **Maniq communities** within the immediate operational zones. The **Trang** province, located near our operational areas, is known to have historical and occasional sightings of the **Maniq**, especially in the more remote, forested regions, but these areas are not directly impacted by our activities.

The **Maniq people** are primarily found in the more forested and isolated regions of southern Thailand, such as parts of **Trang, Phang Nga**, and **Satun**, which are outside of the areas currently under AGRIAC's management.



10.2 Recognition of the Importance of the Maniq People

Although we do not currently have any **Maniq communities** within our operational areas, AGRIAC fully recognizes and respects the cultural, environmental, and social importance of the **Maniq people**. Their deep connection to the forest ecosystem, their traditional knowledge of sustainable resource management, and their cultural heritage are invaluable, not only to their community but to the broader environmental conservation efforts in Thailand.

AGRIAC is committed to ensuring that any potential future interactions or encroachments on traditional **Maniq lands** are handled with care, cultural sensitivity, and in consultation with indigenous groups. Our operations, which prioritize environmental stewardship, align with the broader goals of conserving Thailand's forests, and we are always open to engaging with the **Maniq people** or other indigenous communities should the need arise.



10.3 Distribution of the Maniq Indigenous Communities in Trang Province

In **Trang Province**, the **Maniq indigenous people** (also known as **Sakai**) are spread across the forested areas of the **Banthat Mountain Range**, particularly in the headwaters of **Klong Palian** and **Klong Lipang** in **Palian District**. There are **three groups** of Maniq communities, as follows:

1. **Group located around the Klong Tong village forest area:**
 - **Details:** This group is settled near the headwaters of **Klong Tong**, or what is commonly referred to as **Klong Badlut**, which is an important water source in the area.
2. **Group located around the Chao Pa village forest area:**
 - **Details:** This group is settled near the headwaters known as **Tha Khao** or **Khao Hua Sum**, which are significant water sources commonly referred to by local villagers.
3. **Group located around the Khao Na Tao village forest area:**
 - **Details:** This group is settled near the headwaters of **Klong Lipang**, an area known for its watercourses and waterfalls that flow through the forest landscape

10.4 Importance of the Area

These regions are home to the **Maniq indigenous people**, who live within these natural forest ecosystems and rely heavily on the surrounding resources for their subsistence, including water sources and forest products. The areas surrounding the headwaters of these rivers are crucial for the livelihoods and cultural practices of the **Maniq** people, including their traditional hunting, gathering, and sustainable land-use practices.

The distribution of these communities in the headwater areas is important to consider when managing natural resources and ensuring the preservation of their way of life. For any operations, such as those conducted by **AGRIAC**, it is essential to avoid disruptions to the land and water sources that are integral to the **Maniq** people's survival and cultural heritage. Effective management practices should take into account the need to protect these indigenous landscapes and the communities that depend on them

10.5 Risk of operation disturbant

Based on the two identified groups of the Maniq people — those who have established permanent settlements and those who move according to food sources — we can assess why the Maniq are considered a low risk and not present in AGRIAC's operational areas:



1. Maniq Groups with Permanent Settlements

- **Characteristics:** The Maniq people who have established permanent settlements reside in Trang (3 groups), Satun (1 group), and Songkhla (2 groups). These groups have built stable homes with hardwood structures, and most members have acquired national ID cards.
- **Reason for Low Risk:**
 - These communities are now settled in specific, permanent locations and are no longer nomadic. As a result, they are not likely to migrate into or out of the AGRIAC operational zones.
 - AGRIAC's operations in Surat Thani, Krabi and Phang Nga do not overlap with these permanent settlement areas, which are mainly concentrated in Trang and Satun.
 - The low mobility of these groups means there is little chance of conflict or disruption from the operational activities of AGRIAC in these areas.

2. Maniq Groups that Move According to Food Sources

- **Characteristics:** This group of Maniq people has not established permanent settlements. Instead, they move periodically, typically 3-4 times per year, following areas with abundant food sources. They live in temporary shelters made from leaves and other natural materials and have a very mobile lifestyle. These groups are often in flux, with some even splitting off into smaller sub-groups.
- **Current Distribution:** There are 5 such groups currently in Phatthalung (2 groups) and Satun (3 groups), and they are known to migrate between Trang, Satun, and Phatthalung, specifically in areas around the Banthat Mountain Range and the Bansat Mountain Range.
- **Reason for Low Risk:**
 - **Mobile Lifestyle:** Since these groups are not settled in one location, there is little chance of direct interaction with AGRIAC's operations, which are concentrated in more stable, defined areas that are not located along their migration routes.
 - **Geographic Distance:** AGRIAC's operations, mainly in Surat Thani, Krabi, Phang Nga do not coincide with the primary migration zones of these mobile groups, which are focused in areas between Trang, Satun, and Phatthalung, especially near the Bansat mountain range and other remote forested regions.
 - **Temporary Settlements:** Their temporary shelters in forested areas are not permanent and do not overlap with the areas of permanent settlements or critical agricultural zones.



3. Absence of Maniq People in AGRIAC's Operation Areas

- **Lack of Interaction:** Given the geographic separation between the operational areas of AGRIAC and the areas where the Maniq people, especially the mobile groups, reside, there is no evidence of any direct presence or interaction with AGRIAC's operational zones.
- **Low Risk:** Both groups of Maniq people — those in permanent settlements and those who remain mobile — are not situated within AGRIAC's primary areas of activity. The operational zones, which span provinces like Surat Thani, Krabi, Phang Nga are geographically distant from the known settlements and migration corridors of the Maniq.
- **Cultural and Environmental Considerations:** AGRIAC respects the cultural significance of these indigenous groups and ensures that no activities would disrupt their traditional lands, particularly in regions where Maniq people are known to have historical or spiritual connections to the land.

10.6 Conclusion

The **Maniq people** are considered **low risk** for AGRIAC's operations due to the **geographical separation** between their settlements and migration routes and AGRIAC's operational areas. The **permanent settlements** of the Maniq are located in areas that do not overlap with AGRIAC's forests, and the **mobile groups** are primarily migrating between different provinces, away from our operational zones. This ensures that AGRIAC's activities will not interfere with the **Maniq people** or their traditional lands. Furthermore, AGRIAC remains committed to respecting indigenous rights and ensuring minimal impact on indigenous landscapes, even in areas where the risk of direct interaction is low.

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Given the **low risk** of direct interaction with the Maniq, no immediate action is necessary. However, Agriac will continue to monitor the surrounding regions for any signs of cultural significance or presence of indigenous groups. Any changes in the landscape or land use will be carefully assessed to avoid any disruption to the cultural integrity of these areas

Should the Maniq or other indigenous groups be identified in the future, Agriac will engage in dialogue to ensure respectful collaboration and to address any concerns regarding forest management practices



In areas where indigenous communities have a presence or historical connection, Agriac will implement best practices for preserving traditional knowledge and livelihoods. This may include respecting traditional land-use practices such as agroforestry, sustainable harvesting, and maintaining landscape features that are important for the community's identity and well-being

11. Stakeholder Engagement

As a project manager reviewing the stakeholder engagement records, the following summary highlights key interactions and partnerships AGRIAC has maintained throughout the year to foster collaboration, compliance, and sustainable practices:

1. Cooperative Engagements (Co-Ops)

- **Multiple Training Sessions:** AGRIAC organized training workshops with various cooperatives to ensure their members understand the importance of sustainable rubber plantation management. Notable sessions included training at Ban Ta Khun on forest sustainability and engagement with Klong Pang Co-Op for FSC management.
- **Whole Foods Visit:** A significant visit to a cooperative was documented in September, where Whole Foods representatives were engaged to strengthen relationships and promote best practices in sustainable farming.

2. Government Sector Consultations

- **EUDR Compliance Workshops:** AGRIAC engaged with government entities to discuss the European Union Deforestation Regulation (EUDR) and how the company plans to meet its stringent requirements, ensuring sustainable practices and traceability.
- **Collaborations on Carbon Credits:** Dialogues were initiated with the Rubber Authority of Thailand and other regional government bodies to explore carbon credit opportunities, showcasing AGRIAC's commitment to reducing carbon footprints.
- Partnered with **Rubber Authority of Thailand (RAOT)** under the Agriac initiative. Included certification outcomes and professional standards training in monitoring frameworks.



3. Local Experts and FSC Workshops

- **FSC Standards Calibration:** Several workshops were conducted with local experts and representatives from FSC Thailand to align operations with new FSC standards, ensuring compliance and promoting ecosystem services.
- **Feedback and Recommendations:** Engagements with local experts allowed AGRIAC to gather feedback and refine its management plan to better align with FSC and international sustainability criteria.

4. Customer and Industry Stakeholders

- **EUDR Awareness:** Meetings with key customers such as Top Glove and other significant rubber industry players focused on aligning supply chains with EUDR requirements and discussing potential risks and mitigation strategies.
- **Product and Market Consultations:** Regular touchpoints with customers emphasized product specifications, market trends, and sustainable sourcing, ensuring transparency and maintaining trust in AGRIAC's supply chain.

5. Educational Institutions and NGOs

- **Workshops and Knowledge Sharing:** AGRIAC collaborated with institutions like Prince of Songkla University to deliver workshops aimed at improving the qualifications of rubber farmers and promoting alternative income sources like Trang Pepper cultivation.
- **NGO Partnerships:** Collaborations with organizations such as GIZ provided insights into using geographic information system (GIS) tools for better environmental monitoring.

6. International and Certification Auditors

- **Engagement with FSC Asia-Pacific:** Visits and workshops facilitated discussions on new standards and audits, ensuring that AGRIAC's practices align with global sustainability benchmarks.
- **Soil Association Certification:** Consultations with international auditors reinforced AGRIAC's dedication to maintaining high standards of forest management and sustainable development.



Key Insights:

- **Strong Focus on Compliance:** AGRIAC's engagement with FSC, EUDR, and other regulatory bodies highlights its proactive approach to maintaining compliance.
- **Comprehensive Community Involvement:** Regular training and feedback sessions with local cooperatives and stakeholders demonstrate AGRIAC's commitment to involving community members in sustainable practices.
- **Strategic Partnerships:** Collaborations with NGOs, experts, and international bodies ensure that AGRIAC is at the forefront of sustainable forestry management and market requirements.

This stakeholder engagement demonstrates AGRIAC's strategic commitment to sustainability, compliance, and community engagement, forming a strong foundation for its ongoing operations and management plan for 2024.

Stakeholder	time
ผู้เชี่ยวชาญ / Local expert	8
โรงงานยางพารา/ NR Factory	6
ลูกค้า/customer	27
สถานศึกษา / Education sector	2
สหกรณ์ / Co-Op	10
หน่วยงานตรวจรับรอง / Auditor	6
หน่วยงานราชการ/Government sector	6
หน่วยงานอื่นๆ/Other	5
Grand Total	70

Full report : <https://www.jotform.com/tables/201961156202446>



12. Monitoring and Evaluation

Ensure comprehensive monitoring to assess the impacts of forest management activities on environmental, social, and economic parameters. This monitoring will help maintain compliance with FSC standards and support continuous improvement in forest stewardship.

Monitoring Tools and Methods:

1. **TRAZTRU Applications:**
 - **APP-001 / APP-002:** Utilized to identify farmers, plantations, and detailed plantation characteristics.
 - **APP-005:** Applied for plantation inspections to verify compliance with FSC standards and document observations.
2. **Farmer and Cooperative Meetings:**
 - Regularly scheduled meetings to collect qualitative data, address challenges, and share feedback from farmers and cooperative members.
 - Meetings serve as a platform to communicate expectations and assess ground-level impacts.
3. **LINE@ Official Platform (Ongoing Development):**
 - A digital tool for real-time communication with stakeholders, ensuring rapid updates, efficient dissemination of information, and feedback collection.
4. **Stakeholder Engagement Activities:**
 - Includes direct collaboration with farmers, local communities, and relevant authorities.
 - Focus on aligning practices with FSC standards and improving the socio-economic benefits for stakeholders.

12.1 Environmental Monitoring

- **Environmental Values and Ecosystem Functions:**
 - **Photos of the Plantation:** Visuals indicating the state of the land and any existing vegetation that could support claims about biodiversity and soil quality.

Total plantation visited till 11/21/2024 is 669 Plantations inspected by 11 local expert.
 - **Presence of Structures:** Information about structures on the land that might impact soil and water conservation efforts.



The column "พบสิ่งปลูกสร้างในพื้นที่" appears in **11.96%** of the total inspections . The construction in the plantation area are as following

1. บ้าน (House)
 2. คอกสัตว์ (Animal pen)
 3. บ้านกคอกสัตว์ (House and animal pen)
 4. กระท่อม (Hut)
 5. บ้านโรงเรือน (House and shed)
 6. โรงเรือน (Shed)
 7. บ้านกคอกสัตว์กโรงเรือน (House, animal pen, and shed)
 8. ศาล (Shrine)
 9. เสาสัญญาณโทรศัพท์ (Telephone signal tower)
 10. บ้านกโรงเลี้ยงจิ้งหรีด (House and cricket farm)
 11. ที่เลี้ยงผึ้ง (Bee farm)
 12. ชน่่า (Small shelter)
 13. เสาสัญญาณ (Signal pole)
- **Other Crops and Joint Planting:** Details on co-planting practices that can enhance carbon sequestration and support ecosystem balance.

Other Crops :"พืชปลูกหลักอื่น" appears in **20.78%** of the total inspections

1. ต้นปาล์ม (Palm trees)
2. ต้นปาล์มกไม้ยืนต้น (Palm trees and perennial trees)
3. ไม้ผล (Fruit trees)
4. ไม้ยืนต้น (Perennial trees)
5. ไม้ผลกทุเรียน ใผ่ (Fruit trees, durian, and bamboo)
6. ใผ่ (Bamboo)



7. ต้นปาล์ม\ผลไม้ (Palm trees and fruit trees)
8. ผลไม้\ไม้ยืนต้น (Fruit trees and perennial trees)
9. ต้นปาล์ม\ผลไม้\ไม้ยืนต้น (Palm trees, fruit trees, and perennial trees)
10. ต้นปาล์ม\ผลไม้\ไม้ยืนต้น (Palm trees, fruit trees, and perennial trees)
11. ต้นเหียง 2 ต้น (2 Reng trees)
12. ต้นโขลง 2 ต้น (2 Khlong trees)

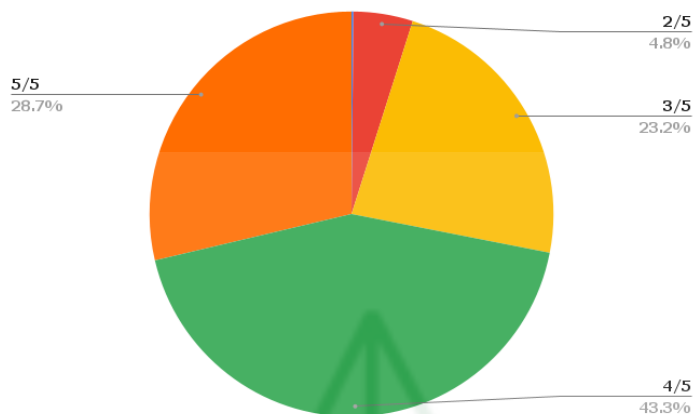
Joint Planting :The column "มีต้นไม้อื่นปลูกร่วม (ระบุชื่อ)*" appears in **18.54%** of the total inspections

1. ต้นเทียม (Teak tree)
2. สับปะรด (Pineapple)
3. ขนุน (Jackfruit)
4. ชะมวง (Garcinia cowa)
5. ผักเหลียง (Pak Liang leaves)
6. สละ (Salak palm)
7. มะพร้าว (Coconut)
8. กล้วย (Banana)
9. ทุเรียน (Durian)
10. ไผ่ (Bamboo)
11. มังคุด (Mangosteen)
12. ตะเคียน (Hopea tree)
13. ลองกอง (Longkong)
14. โกโก้ (Cocoa)
15. ตะเคียนทอง (Golden Hopea)



- **Rubber Tree Condition:** Scores indicating the health and condition of the trees, indirectly reflecting environmental management.

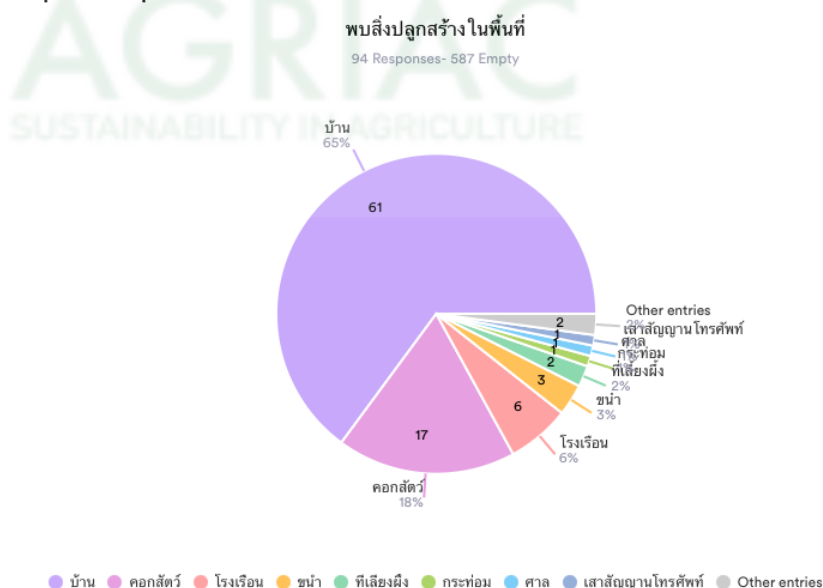
There is the photo of the tapping condition rating from 1/5 to 5/5 the most rate is 4/5 which is consider as 43 % fo total inspections. 1/5 and 2/5 need to have improvement is consider as 4.8 %



**For Full report :<https://www.jotform.com/report/24331081031704027>

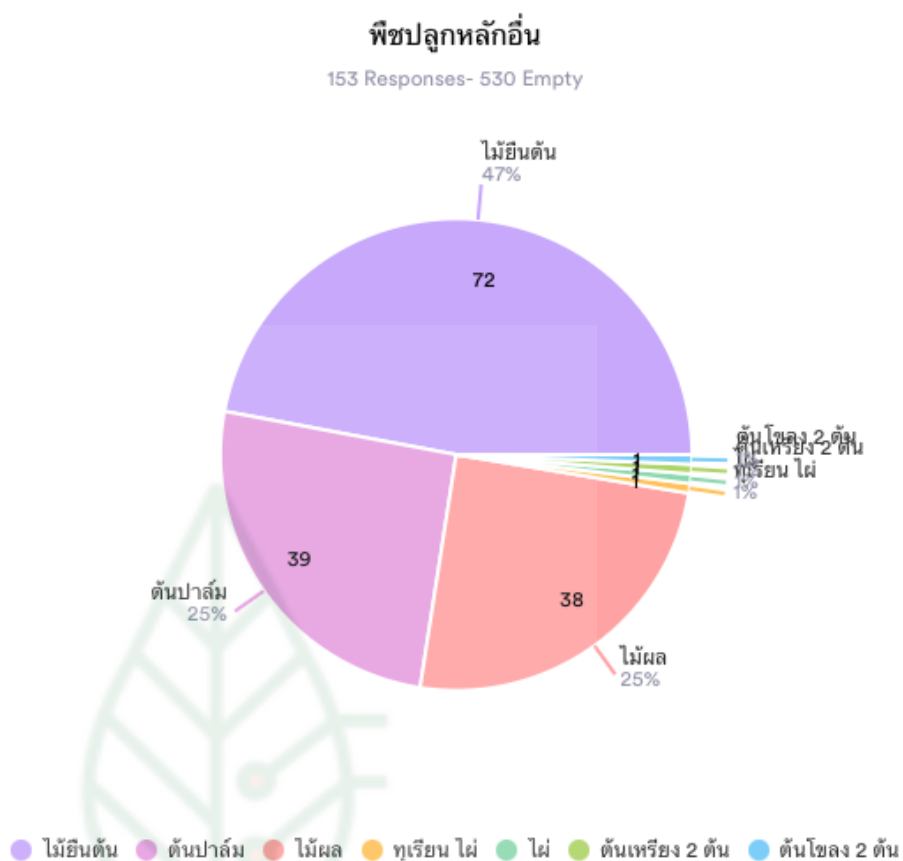
- **Rare and Threatened Species:**

- **Presence of Structures:** Indicates human impact and habitat. The chart shows findings as following
 - Most Common: Houses (65%)
 - Other Notable: Animal pens (18%) and sheds/greenhouses (6%).
 - Less Common: Altars, huts, bee shelters, traditional huts, and telephone poles





- **Additional Crops or Joint Planting:** Shows if land management practices might support or hinder biodiversity.



- **HCV Proximity (e.g., National Parks, Rare Ecosystems):** Details of plantations are near conservation areas or rare ecosystems critical for species preservation.





The evaluated plantations were thoroughly assessed using a **3-step HCV evaluation process**:

1. **Pre-screening:**
 - The initial questionnaire confirmed that the plantations are not near water sources, conservation areas, wildlife habitats, or areas with significant ecological or cultural importance.
 2. **Satellite Layer Intersection:**
 - An analysis using satellite maps and relevant layers (e.g., EU Deforestation, National Parks, Reserved Forests, Protected Areas) found no overlaps or proximity to conservation zones or rare ecosystems critical for species preservation.
 3. **Onsite Checklist Evaluation (APP-005):**
 - Onsite inspections confirmed no presence of High Conservation Value (HCV) areas, including biodiversity hotspots, rare ecosystems, or areas critical for species preservation (HCV 1–6). All results were documented with "No" findings across the checklist.
- **Water Resources:**
 - **Co-planting Practices:** Could show plant diversity that supports water retention and ecosystem health.

Based on the data:

- Some plantations reported intercropping with **palm trees**, suggesting limited plant diversity.
- While this practice may contribute to ecosystem health, such as supporting water retention, there is no significant evidence of broader co-planting practices or diverse vegetation specifically aimed at improving water management.



- **Proximity to Key Water Areas (HCV 4):** Details if plantations are near important water systems, which is crucial for assessing conservation impact and water resource management.

Evaluations from pre-screening, satellite analysis, and onsite inspections indicate:

- None of the plantations are near key water areas such as critical watersheds, major rivers, or designated buffer zones.
- Specifically, **HCV 4 attributes**, including areas for ecosystem services like water management or flood control, were not identified in the plantations.
- **High Conservation Values (HCVs):**
 - **HCV 1:** Proximity to national parks, wildlife sanctuaries, or buffer zones.
 - **HCV 2:** Large-scale ecosystems or areas with important ecological functions.
 - **HCV 3:** Rare or endangered ecosystems like peat forests or Ramsar wetlands.
 - **HCV 4:** Areas providing ecosystem services, such as watersheds or firebreaks.
 - **HCV 5:** Areas vital for local communities' needs (e.g., water, food).
 - **HCV 6:** Areas of cultural, religious, or historical significance.

The evaluated plantations were thoroughly assessed using a **3-step HCV evaluation process**:

1. **Pre-screening:**
 - The initial questionnaire confirmed that the plantations are not near water sources, conservation areas, wildlife habitats, or areas with significant ecological or cultural importance.
2. **Satellite Layer Intersection:**
 - An analysis using satellite maps and relevant layers (e.g., EU Deforestation, National Parks, Reserved Forests, Protected Areas) found no overlaps or proximity to conservation zones or rare ecosystems critical for species preservation.



3. Onsite Checklist Evaluation (APP-005):

- Onsite inspections confirmed no presence of High Conservation Value (HCV) areas, including biodiversity hotspots, rare ecosystems, or areas critical for species preservation (HCV 1–6). All results were documented with "No" findings across the checklist.

*Full report

:<https://www.jotform.com/report/24331081031704027?st=WU92TTIsZFR5SDIueE92NTIKTmZUTFBGb3E3NDVVOVpmOE50Q2NSR08vaXBXR3pzRDVCS2N3TIJ0Q2N5WDg3MDFJTVk2WVJ0dIRBYmJ4ayt2aDhTSmt4MUWyUGFrTERSS1dncVUwaGNXaHhnQ3FTcDNRR1ZxbXc1NnNKOEIKdG8=>

12.2 Social Monitoring

- **Community and Worker Welfare:**
 - **Employment Status:** Whether workers are hired for plantation maintenance, indicating community engagement and labor practices.
 - Filtering the "จ้างคนทำสวนยางหรือไม่" column to count how many responses indicate employment.
 - **Calculating the percentage** by dividing the number of responses indicating employment by the total number of responses and multiplying by 100.
 - **Accident History:** Records of accidents, which are crucial for assessing worker safety.
 - **Condition and Tapping Quality of Rubber Trees:** These scores can indirectly reflect the working conditions and expertise of laborers.
- **Stakeholder Engagement:**
 - **Employment of Local Labor:** Indicates engagement with the local workforce and possible stakeholder relationships.
 - **Structures Present on the Land:** May point to discussions or agreements with communities regarding land use and property development.
 - **Stakeholder engagement report:** with all activities have been done through out the year.



- **Cultural and Spiritual Sites:**

- Protecting and maintaining sites of cultural significance.
 - **Proximity to cultural or religious sites:** Data indicating whether plantations or projects are near areas with religious or cultural importance.
 - **Efforts to maintain and protect these sites:** Information on any initiatives or observations related to safeguarding such areas.

Proximity to Cultural or Religious Sites:Based on the data:

- There is no evidence of the plantations being located near areas of cultural or religious importance. Specifically, the plantations were not reported to be adjacent to or within **HCV 6 areas**, which include significant religious, historical, or spiritual sites.

Efforts to Maintain and Protect These Sites:

- From the evaluations:
 - There were no observed cultural or religious sites within or near the plantations that required active protection.
 - However, the absence of such sites minimizes the risk of impacting cultural heritage or spiritual values.

Conclusion:

The plantations are not located near culturally or spiritually significant areas. While no direct efforts were necessary to maintain or protect such sites, the ongoing evaluation process ensures any future findings related to cultural significance will be identified and addressed promptly to uphold conservation and cultural heritage standards.

- **Local Economic Impact:**

- Evaluating contributions to local economic and social development.



12.3 Economic Monitoring

- **Harvest Assessment:**
 - Comparing actual harvests with projections for timber and non-timber products to ensure sustainable yields.
- **Economic Viability:**
 - Assessing long-term economic sustainability and diversification of income sources.
- **Compliance with FSC and EUDR:**
 - Verifying adherence to FSC standards and the European Union Deforestation Regulation through periodic audits.

12.4 Monitoring Tools and Methodologies

- **GIS and Remote Sensing:**
 - Utilizing satellite imagery and GIS technology to track changes in forest cover and land use.
- **Field Assessments:**
 - On-ground inspections to corroborate remote data and ensure real-time updates.
- **Biodiversity Surveys:**
 - Regular biodiversity assessments to track the presence of native and endangered species.
- **Community Surveys and Feedback:**
 - Conducting regular surveys and engaging stakeholders to gather feedback on social impacts and stakeholder relationships.

12.5 Reporting and Continuous Improvement

- **Documentation:**
 - Regularly updated reports and maps detailing natural resources, land-use zoning, and conservation areas.
- **Annual Review:**
 - Comprehensive review at the end of each cycle to inform adjustments in the management plan.
- **Stakeholder Collaboration:**
 - Continuous engagement with stakeholders, including local communities, government agencies, and NGOs, for adaptive management practices.

This structured outline will ensure the 12. Monitoring and Evaluation section aligns with FSC standards and effectively measures the performance of forest management activities.



13. Maps and GIS Tools by TRAZTRU

All management areas are mapped using GIS technology. These maps detail:

- Property boundaries
- Topography
- Forest cover and land use
- Conservation zones, riparian buffers, and HCVMs
- Wildlife corridors

These maps are updated annually based on satellite imagery and field data to ensure accuracy.

14. Benefit from the forest

Focusing on how Agriac, as a responsible forest management entity, upholds the guidelines for sustainable management of multiple products and services. The overarching aim is to ensure long-term economic viability while maximizing social and environmental benefits from the management unit. This document outlines the alignment of Agriac’s activities with the FSC standard and provides an overview of current practices, compliance measures, and opportunities for continual improvement.

14.1 Identification and Production of Diversified Benefits and Products

Product list

Update	Status	Product Type	Trade Name	Species	Primary Activity	Secondary Activity	Main Output Category
28 Oct 2021	Non-Active	W1 Rough wood W1.1 Roundwood (logs)		Hevea brasiliensis	Logging		FSC 100%
29 Oct 2021	Non-Active	W1 Rough wood W1.3 Twigs		Hevea brasiliensis	Logging		FSC 100%
30 Oct 2021	Active	N7 Natural gums, oils and derivatives N7.1 Rubber/ Latex N7.1.1 Natural rubber	Latex	Hevea brasiliensis	gathering of non-wood products		FSC 100%
31 Oct 2021	Active	N7 Natural gums, oils and derivatives N7.1 Rubber/ Latex N7.1.1 Natural rubber	Cup lump	Hevea brasiliensis	gathering of non-wood products		FSC 100%
1 Nov 2021	Active	N7 Natural gums, oils and derivatives N7.1 Rubber/ Latex N7.1.1 Natural rubber	Unsmoked sheet	Hevea brasiliensis	gathering of non-wood products		FSC 100%



1 Sep 2024	Non-Active	N9 Food N9.8 Honey	EcoHarvest Honey		gathering of non-wood products	gathering of non-wood products	FSC 100%
1 Sep 2024	Non-Active	N9 Food	Trang Pepper	Piper nigrum Linn , Piperaceae	gathering of non-wood products	gathering of non-wood products	FSC 100%

Agriac identifies and produces diversified products and services to strengthen the local economy in alignment with the FSC standard. The management unit's ecosystem services, including clean water provision, soil conservation, biodiversity maintenance, and climate regulation, are acknowledged and maintained.

- **14.1.1 Compliance with Ecosystem Services Procedure:**
 - Agriac ensures that ecosystem services, such as water conservation and biodiversity enhancement, are integral to its management activities. Although the FSC forest management standard does not mandate ecosystem services, if promotional claims are made, Agriac will follow the FSC-PRO-30-006 V1-0 Ecosystem Services Procedure and FSC-GUI-30-006 V1-0 to demonstrate impacts and enable market access.
 - **Current Measures:** Monitoring water bodies, maintaining riparian buffers, and promoting biodiversity by integrating non-timber forest products (e.g., EcoHarvest Honey) within the management unit.

14.2 Sustainable Harvesting of Forest Products

Agriac adheres to sustainable harvesting practices to ensure environmental balance and compliance with the management plan

- **14.2.1 & 5.2.2 Harvest Level Determination:**
 - A sustainable harvest rate has been defined in the management plan to prevent over-extraction and allow for forest regeneration. This rate is based on ecological assessments, growth data, and rotation cycles.
- **14.2.3 Record Maintenance:**
 - Detailed records of harvested timber and non-timber forest products are maintained by Agriac or its designated representative to ensure transparency and tracking of resources.



14.3 Positive and Negative Externalities in Operations

While Criterion 5.3 does not include specific indicators for smallholders, Agriac considers the potential positive and negative impacts of its operations on local communities and ecosystems:

- **Current Practices:**
 - Monitoring environmental impacts such as soil erosion and water quality.
 - Promoting practices that encourage community engagement and contribute to the local economy, such as supporting smallholder participation in agroforestry programs.

14.4 Use of Local Processing and Services

Agriac utilizes local resources and services where feasible, reinforcing community support and economic development:

- **Practical Application:**
 - Contracting local processing facilities and labor for rubber processing and related activities.
 - Collaborating with local cooperatives and small businesses for value-added services to increase local economic resilience.

14.5 Long-Term Economic Viability

While specific indicators for long-term economic viability are not mandated for smallholders, Agriac demonstrates its commitment through strategic planning and investment:

- **Commitment to Viability:**
 - Ongoing investments in training smallholders on sustainable practices, leveraging TRAZTRU for data management, and exploring carbon credit opportunities.
 - Developing partnerships to enhance market access and ensure compliance with FSC and EUDR guidelines, thus safeguarding future income sources.



14.6 Summary and Future Recommendations:

Agriac's management plan aligns with Principle 5 by integrating sustainable practices, supporting local economic growth, and maintaining ecosystem benefits. Continued efforts include:

- Strengthening monitoring of harvest rates and ecosystem impacts.
- Expanding training for smallholders on sustainable resource use.
- Enhancing stakeholder collaboration to optimize economic, social, and environmental returns.

Conclusion: Through diligent management, adherence to FSC standards, and proactive community involvement, Agriac ensures that its operations provide long-term economic, social, and environmental benefits. This commitment reinforces Agriac's role as a sustainable forest steward, contributing positively to the local economy and the broader environmental landscape.

15. Conclusion

The Forest Management Plan for 2024 builds on Agriac's commitment to sustainable forest management. By integrating advanced monitoring tools, engaging stakeholders, and prioritizing environmental conservation, we ensure that our operations contribute positively to the environment, local communities, and the economy. This plan reflects our ongoing compliance with FSC and EUDR standards and addresses the improvements needed to meet the requirements of the Minor CAR 2023-03.

