



Burapha Annual Sustainability Report

2021



CEO Introduction

Mr Przemek Pruszyński, CEO Burapha Agroforestry

Burapha continues to set the benchmark of sustainable plantation forestry. 2021 was a very important year with the opening of our modern plywood mill in Hinheup District, first planned back in 2018, and the commencement of harvesting our FSC certified plantations which were first established in 2011. The year was a milestone in company expansion bringing much needed foreign revenue, jobs and skills to Lao PDR.

It was also a year of challenges, particularly in relation to COVID 19 pandemic management and setting up our systems for the rapid expansion that occurred. Throughout this our staff, investors, partner villages and government counterparts worked collaboratively to make it a very successful year for the company.

I would like to present the Annual Sustainability Report which communicates the Company's activities and programs relating to our sustainability performance in 2021.

Contents

1. Sustainability at Burapha Agroforestry Ltd	5
❖ Company Profile	5
2. Our Approach to Sustainability	6
❖ Burapha’s Environmental and Social Corporate Policy	6
❖ Meeting Sustainability Development Goals	6
3. Corporate Governance.....	7
❖ Lifting communities out of poverty	8
4. Building the technical capacity of the Lao forestry sector	9
5. Employee Wellbeing and Work Satisfaction	10
6. Burapha Plywood Mill.....	10
7. Management Team and Structure	13
8. Employment Data 2021	13
❖ Workforce Composition	13
❖ Other Employment Statistics.....	13
❖ Workforce Health Cover.....	14
❖ Working in partnership with local villages	14
❖ Retrenchments	15
❖ Injuries and Accidents	15
❖ Workforce and Daily Labor Training	16
❖ Female participation in the workforce.....	17
9. External Audits	17
❖ Forest Stewardship Council (FSC)	17
❖ Lenders’ Social and Environmental Advisor Audit and Monitoring Visit	18
❖ Investor List of Prohibited Activities.....	19
10. Internal Audits	20
11. Environmental and social performances	20
❖ Environmental and Social Programs	20
❖ Partner Village Baseline and Socioeconomic Livelihood Surveying.....	21
12. Land Acquisition and Land Use Limitations.....	22
❖ Expanding the Land Department’s skillset	22
❖ Land Use Limitations: progress in 2021	22

13. Biodiversity and Environmental Protection	23
14. Forestry Operations – Silviculture and Harvesting	24
❖ Integrated Pesticide Management Planning	25
❖ Third Party Timber Sourcing and Verification of Chain of Custody	26
15. Forestry Operations Grievances	26
16. UXO	27
17. Outgrowers	27
18. Plantation Fire Management	27
19. Fire Statistics	29
❖ Fire Management Training	29
20. Burapha seeking carbon certification	30
21. Working with NGOs and stakeholder partner	30
❖ Grow Asia	30
Figure 1: Land holdings and plantation distribution	6
Figure 2: Sustainable Development Goals	7
Figure 3: Burapha 7-year agroforestry model	9
Figure 4: Burapha Organization Chart Table	13
Figure 5: Incidents by cause in 2021	16
Figure 6: Staff and Daily Labor Training Topics in 2021	16
Figure 7: Male to female workforce participation ratios	17
Figure 8: Instances of non-compliance from internal auditing in 2021	20
Figure 9: Registered Grievances	27



1. Sustainability at Burapha Agroforestry Ltd

❖ Company Profile

Burapha Agroforestry Co. Ltd (Burapha) was established in 1993 by a Lao-Swedish joint venture. Burapha operates in Vientiane Prefecture and the provinces of Vientiane, Xayabouri and Xaysomboun in Lao PDR. At the end of 2021, the company had 8,271¹ hectares (ha) under active management and 5,562 ha planted, of which 5,413.2 ha were FSC FM certified.

Burapha employs a community intercropping model whereby participating villages utilize the space between plantation tree rows for rice or another cultivation crop in the first year, and domestic animal grazing and Non-Timber Forest Products (NTFP) collection is in later years.

Burapha completed the construction of a veneer and plywood manufacturing mill in Hinheup District Vientiane Province, approximately 100km northwest of Vientiane Capital. The mill site is centrally located with respect to Burapha plantation holdings and to a new four lane highway linking Hinheup to Vientiane Capital. The site is also located near the Lao-China rail link which began operating in December 2021. At full capacity, the plywood mill processes/ approximately 135,000 m³ of saw logs per annum, producing approximately 50,000 m³ of finished product. The plywood mill was FSC Chain of Custody certified in July 2021, with raw timber supplied by Burapha's FSC certified plantations, as well as other holdings which meet wood legality and sustainability criteria.

Burapha operates a sawmill and furniture factory at Nabong, Xaythany District Vientiane Capital. The sawmill processes wood grown in the Company's plantations as well as teak logs purchased from external, wood legality proven entities. The facility has a current installed capacity of 18,000 m³ raw input per annum producing approximately 9,000 m³ of sawn lumber and 4,500 m³ of ready-made products per year, exported to customers in the USA, Scandinavia, Europe, Southeast Asia and the Maldives. The sawmill has been FSC Chain of Custody Certified since 2016.

Burapha also has its own research and development (R&D) program to support our plantation operations. Burapha's tree nursery and R&D facility are situated adjacent to the Nabong sawmill, with silviculture research conducted in the plantation areas nearby. The nursery has a current capacity to develop two million seedlings per year.

¹ This total combines areas with plantations and land available for future expansion.

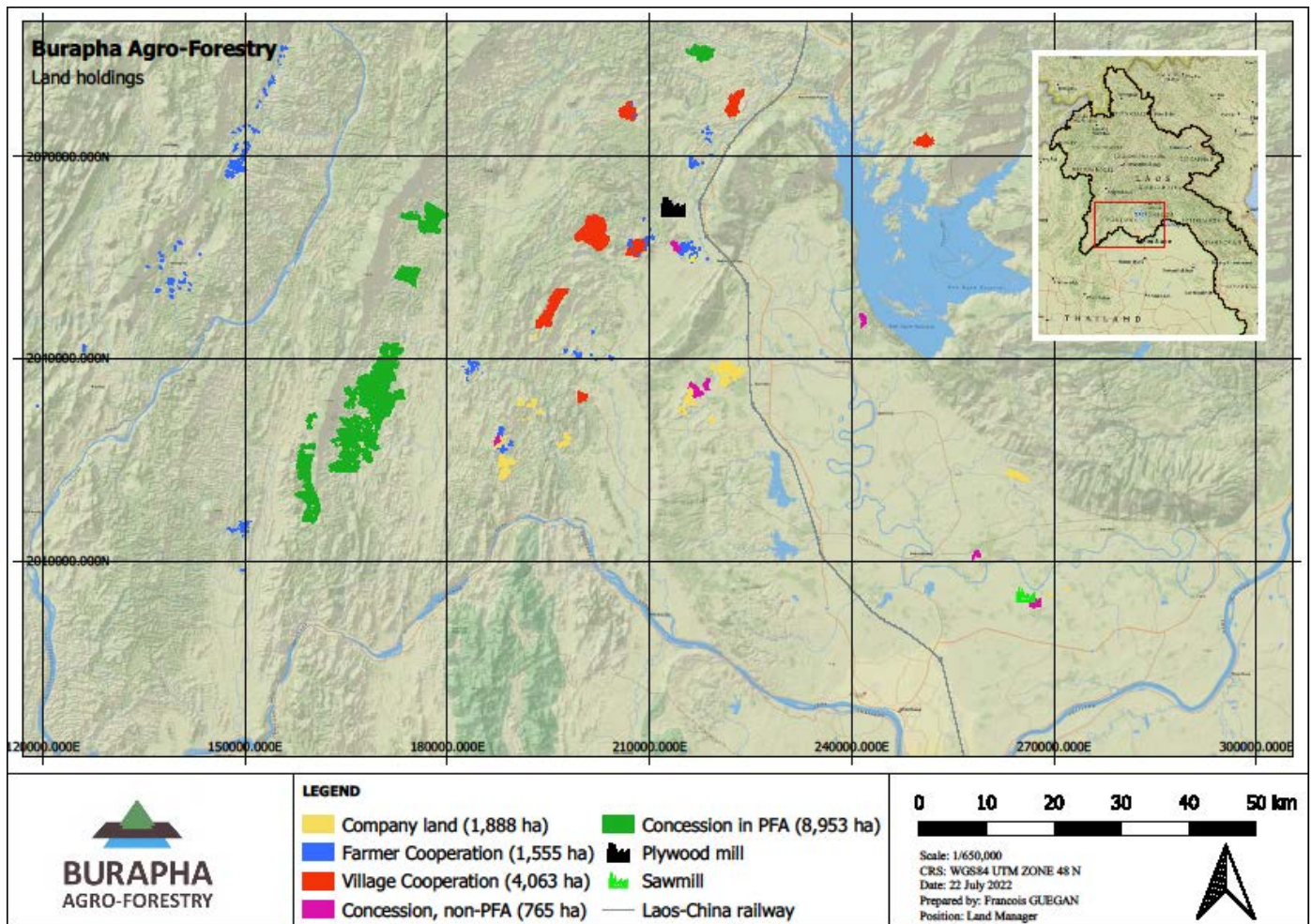


Figure 1: Land holdings and plantation distribution

2. Our Approach to Sustainability

❖ Burapha's Environmental and Social Corporate Policy

Burapha places the highest importance on protecting the environment and enhancing the livelihoods of local communities. The Company is committed to providing a safe workplace; transparent governance; following the laws and regulations of Lao PDR; and adhering to the IFC Performance Standards and to the FSC Principles.

❖ Meeting Sustainability Development Goals

Burapha believes that to have an entirely sustainable business it is important not to meet a couple of Sustainable Development Goals (SDGs) but to meet as many as possible either directly or indirectly. Throughout this report we present how Burapha directly meets the requirements of at least nine SDGs.



Figure 2: Burapha Sustainable Development Goals

3. Corporate Governance

Burapha has and will continue to provide a range of benefits to Lao PDR. Direct benefits include government revenue through fees and taxes, increased direct foreign investment and new employment opportunities. Indirect benefits include skills and infrastructure development. Burapha principally operates in remote areas of central Laos bringing long term benefits to partner communities. As we utilize only degraded lands and actively protect and manage sensitive environments within our plantations Burapha creates truly sustainably developed products. [SDGs 1, 8 and 15]

Local communities are actively involved in pre-project planning and are later employed by the company to physically prepare land, undertake planting and maintain the plantations during their seven-year rotation. The plantation work offers a long-term source of income and additional benefits to those who choose to grow crops or have their livestock graze in-between the tree rows. Burapha



emphasizes the inclusion and participation of disadvantage households, women and ethnic groups. Most of Burapha landholdings and plantations are within Khmu and Hmong villages, in areas that, while further remote, offer favorable environmental characteristics for plantations. All land is acquired under the principles of Free Prior and Informed Consent (FPIC), whereby villagers have the right of refusal. [SDGs 1, 8, 9, 11, 12 and 15]

Burapha contributes to the National Growth and Poverty Eradication Strategy by providing long term jobs and training to remote communities by using investment revenues to establish and operate plantations. Burapha contributes to the 9th National Socio-Economic Development Plan 2021 – 2025 by reducing economic shock to rural communities through the provision of long-term work prospects. Burapha intends to expand its eucalyptus plantations to 60,000 ha in central Laos through our concession agreement² with the Lao Government to utilize Production Forest Areas³. [SDGs 8 and 9]

❖ Lifting communities out of poverty

Through Burapha's work with local communities we can demonstrate an improvement to partner village livelihoods and progress towards poverty eradication. In 2018, Burapha commissioned an independent assessment⁴ of the benefits we provide to partner villages from our agroforestry model. This exercise will be repeated in 2023 to measure ongoing progress on poverty alleviation. As Burapha operates close to remote villages we provide work opportunities that may not have otherwise existed, thus reducing the need for families to be separated as result of finding work at a distance. [SDG 8, 11 and 15]

Indeed, our model directly assists our partners not only to access long term employment but also strengthen their land tenure holdings. Our land acquisition processes assist farmers to secure and complete legal land tenure documents, because if a farmer's land tenure is not secure, then neither is Burapha's. Customary use on government administered land, such as Production Forest Areas, is also protected by the same right of refusal which ensures individuals or villages that depend on these areas for livelihoods is maintained. [SDG 15]

² The concession agreement was finalized in 2022

³ Government designated and managed land areas set aside for the specific purposes of producing wood and wood-based products viz similar to state forests.

⁴ Burapha Agroforestry Partnership Village Benefits Assessment Report, Emerging Markets Consultants, August 2018

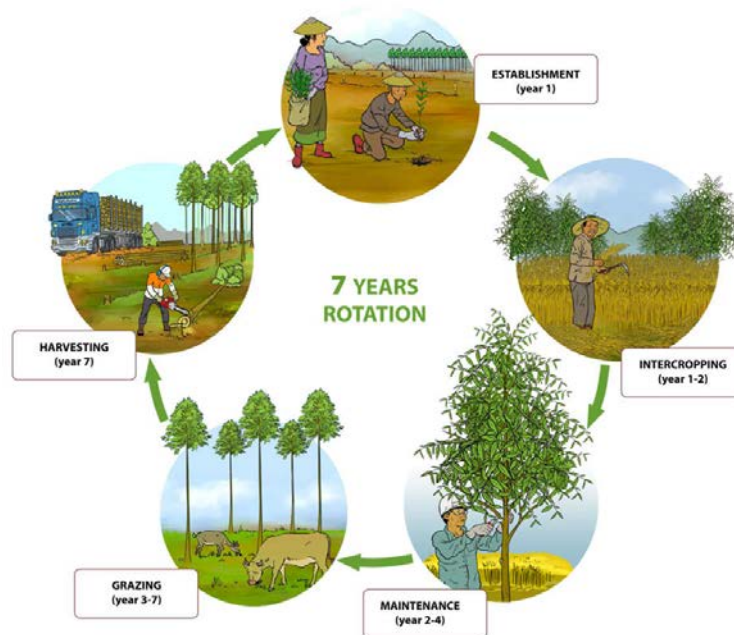


Figure 3: Burapha 7-year agroforestry model

4. Building the technical capacity of the Lao forestry sector

In 2020, Burapha signed a *Memorandum of Understanding* (MOU) with the Faculty of Forest Science (FFS) at the Lao National of University across seven areas of cooperation:

- i. Opportunity to undertake practical internships;
- ii. Cost-sharing and a financial support for the maintenance of the university's plywood manufacturing and training facility;
- iii. Plywood production curriculum and tailored training materials;
- iv. The company's technical staff provide lectures for students and/or faculty staff;
- v. Thesis and full scholarships opportunities to final-year students;
- vi. English language support to 3rd and 4th year students, and;
- vii. Research opportunities between the FFS faculty and Burapha.

In 2021, twelve graduate students, including six females were recruited by Burapha to work at the plywood mill in full time supervisory roles. [SDG 5, 8 and 9]



Photo 1 Faculty of Forest Science students completing plywood production training from Burapha at the National University of Laos facility.

5. Employee Wellbeing and Work Satisfaction

Burapha employs and manages its workforce, including casual labor, under the auspices of the International Labor Organization (ILO) and the Lao Labor Law. The company supports and respects equal rights and works in compliance with International Human Rights. We allow freedom of association, collective bargaining and provide a safe work environment. We provide training on how to identify and minimize risks in relation to their work associated tasks. Burapha extends the requirements of ILO and national laws to all its service providers contracts. We pay above the minimum legal wage and review the living costs of staff to ensure that significant changes to key economic indicators, such as inflation, are factored into salary adjustments.

Burapha has zero tolerance towards bribery, corruption and harassment of any kind, and our internal Grievance Management System provides all workers with a mechanism to report issues without fear or prejudice. Annual health checkups are provided to all employees. [SDG 8]

6. Burapha Plywood Mill

Between the 1st April and 31st May 2021 commissioning of equipment was conducted at the new plywood mill in Hinheup District, Vientiane Province. [SDG 9] Full production commenced on 1st June 2021, representing the culmination of four years of planning and construction activities. Total investment in the mill was approximately \$20M USD, including the supplier contract with Linfox Transport to provide outsourced modern harvesting and haulage operations.



Photo 2 Linfox supplies harvesting and transport logistics for Burapha operations

The mill employs 253 people, almost all recruited from nearby villages. The mill has a fully functioning medical clinic permanently staffed by registered nursing staff supplied by Hinheup hospital. [SDGs 8]

Burapha faced several challenges in the early stages of operations. Equipment issues were encountered with the peeling and drying lines during production ramp up in 2021. This required technicians from *Raute*, the original equipment manufacturer, to modify and calibrate the equipment. Additionally, the boiler system, critical for drying the plywood veneer, also required significant modifications and repair during the later part of 2021. Finally, the mill was briefly closed in 2021 to strengthen COVID mitigation measures.

A major success in 2021, was that an audit conducted by British Standard Institute (BSI) was passed, allowing the mill to produce and sell high priced and high demand structural hardwood plywood in the Australian market. The total finished goods output for the mill in 2021 was 2,459 m³, mostly exported to Australia. [SDG 8]



Photo 3 Locally recruited people provided work opportunities and skills training at the plywood mill



Photo 4: Burapha Plywood Mill, Hinheup District in Central Laos

7. Management Team and Structure

In 2021 the Burapha organizational structure consisted of four (4) key functional areas: Industry, Operations, General Support and Government Relations. Within these are nine departments, with the CSER and Safety playing an oversight function. Each department, except for Government Relations and Procurement, was managed by experienced expatriate staff.

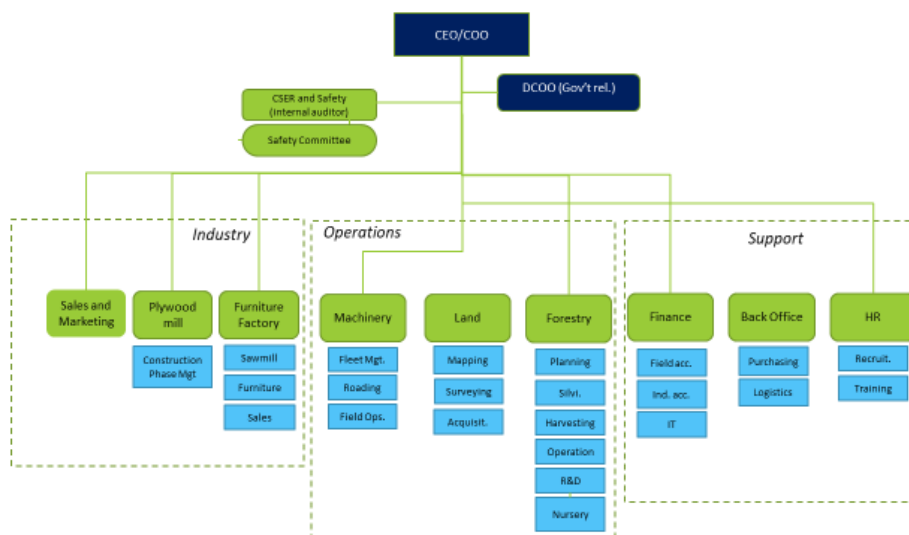


Figure 4: Burapha Organization Chart Table

8. Employment Data 2021

❖ Workforce Composition

Permanent/direct contract Jobs	404
Permanent/direct contract Jobs - women	172
Temporary/seasonal/direct contract Jobs ⁵	1528
Temporary/seasonal/direct contract Jobs- women	531
No. of 18-24 year old employees	98
No. of 25-35 year old employees	190
Employees from ethnic groups	17.8%

❖ Other Employment Statistics

Total number of permanent employees leaving	51
Number of permanent employees leaving - female	21
Number of permanent employees leaving - 18-24 year old's	17
Number of permanent employees leaving - 25-35 year old's	17
Number of employees earning minimum wage	100%

⁵ As a rule of thumb, it takes about one person (a daily laborer) to prepare and manage one hectare of plantation. All this work is done by local communities under the supervision of Burapha staff. The 'rule' varies according to the pre plantation vegetation cover, local terrain conditions and adjacent landuse.

❖ Workforce Health Cover

Expatriate staff health insurance are covered by international insurance policies while Lao nationals are covered by the state-run Social Security Office (SSO) policy which includes:

- Health care benefit;
- Benefit for childbirth and miscarriage;
- Employment Injury and occupational diseases and not work-related;
- Sickness benefit;
- Benefit for Loss of Working capacity;
- Old-age pension;
- Death grant benefit;
- Benefit for family members of insured person; and
- Unemployment benefit.

All daily labor work related injuries and associated lost work time are compensated by Burapha. Burapha will also, at times, contribute to the cost of religious practices for example- ‘*basi*’ - for those injured which helps hasten their recovery. [SDG 8]

❖ Working in partnership with local villages

The company underwent considerable growth in 2021 with a large number of new positions recruited for placement at the new plywood mill. Total employee numbers increasing from 167 in the previous year to 404 full time staff in 2021. Most new employees were recruited locally to the plywood mill in Hinheup district. [SDG 1, 8 and 12]



Photo 5 New staff undertaking training at the plywood mill

Seasonal plantation establishment and management activities also created job opportunities for 1,528 daily workers, including 531 women, drawn from our partner villages. The villagers were tasked with activities such as plantation clearing, tree planting, fertilizing, pruning, plantation thinning, fire break construction and fire management-suppression. Training was provided including the technical aspects

of the work, machinery and equipment operations, job related safety and the use of personal protection equipment (PPE). Additionally, Khum (village clusters) assistants were drawn from the villages to act as work group managers. These Khum assistants also provided additional services such as fire-watch guards and with support of Burapha staff, kept village authorities informed of daily forestry operations. [SDG 1, 5, 8, 11 and 15]



Photo 6 Local villagers being trained on silviculture best practice and land preparation techniques

❖ Retrenchments

In 2021 there were no retrenchments related to breaches of environmental, social or safety requirements of the company.

❖ Injuries and Accidents

There were 18 reported accidents in 2021 that resulted in non-serious injuries and most unfortunately, one fatality; which was caused by a single-vehicle incident in one of our plantations. An extensive investigation was undertaken which identified corrective action requirements around driver training and competency testing; plantation access road design and surface condition improvements; the physical upgrade of mobile plantation equipment. These actions were promptly addressed and will continue to be a safety focus to prevent any future tragedy.

Lost Time Accidents: A lost time accident is an on-the-job accident that results in an employee being absent from the workplace for a minimum of one full day work day. The absent day does not include the day during which the accident occurred. Lost Time Accident Rate (LTAR) for direct and contract workers ($LTAR = \frac{\text{No lost time incidents} \times 200,000}{\text{no working hours (headcount} \times \text{daily working hours} \times \text{no working days in year})}$). The LTAR for 2021 was 0.2.

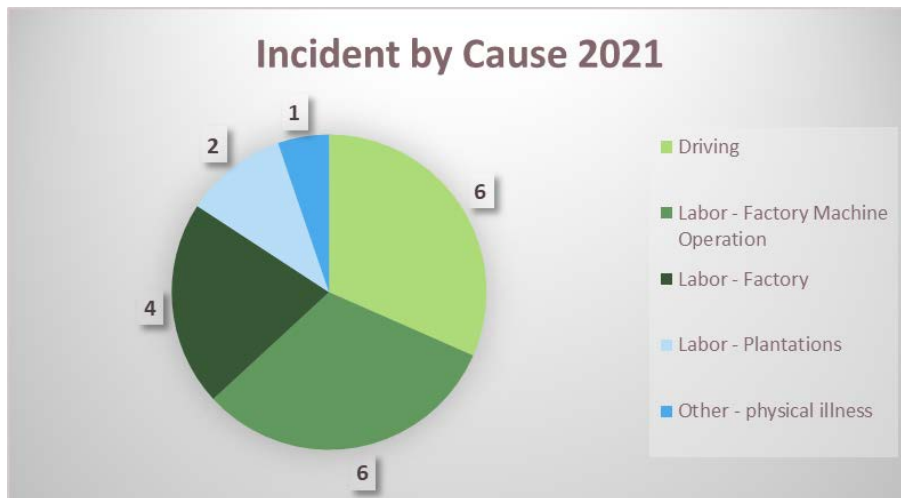


Figure 5: Incidents by cause in 2021

❖ Workforce and Daily Labor Training

Burapha is a learning organization with systems in place to review and monitor successes and skills gaps within our operations. We have a comprehensive annual training program that draws on internal and external expertise. During 2021 there were 147 training sessions involving 1266 staff and external labor attendees. The average hours of training for our daily labor was 11.23 hours, while for permanent staff it was 14.5 hours.

Occupation Health and Safety	Environmental Management	Plantation Management	General
<ul style="list-style-type: none"> First Aid Training Remote Accident Management Personal Protection Equipment Use Safe Herbicide Application Safe Fertilizer Application Lotsing Driver Training Lotsing Safety Inspection and Maintenance Tractor Driver Training Tractor Inspection and Safety Maintenance 	<ul style="list-style-type: none"> Biological Control of Pests Within the Plantations and Tree Nursery Remote Camp Management and Hygiene High Conservation Value Assessor Accreditation 	<ul style="list-style-type: none"> General Forestry Safety Plantation Fire Breaks Maintenance of Fire Fighting Equipment Use of Fire Fighting Equipment Fire Mitigation and Suppression 	<ul style="list-style-type: none"> General Inductions / Onboarding for all new staff COVID Hygiene Protocols Company Policy on Vehicle Use, including Safety Policy

Figure 6: Staff and Daily Labor (villager) Training Topics in 2021

❖ Female participation in the workforce

In 2018 Burapha set a target to achieve 35% female staff participation by the end of 2021, to coincide with projected plantation expansion into Production Forest Areas and the commencement of plywood mill operations.

It is pleasing to report that at the end of 2021, female staff represent 44% of all full-time employees, significantly exceeding this target. The majority of female employees are production workers at the plywood mill and reside in nearby villages and are predominantly under the age of 35. Burapha has provided much needed income to the area while maintaining family unity as the young do not have to leave the village to find work in other provinces. [SDG 5]

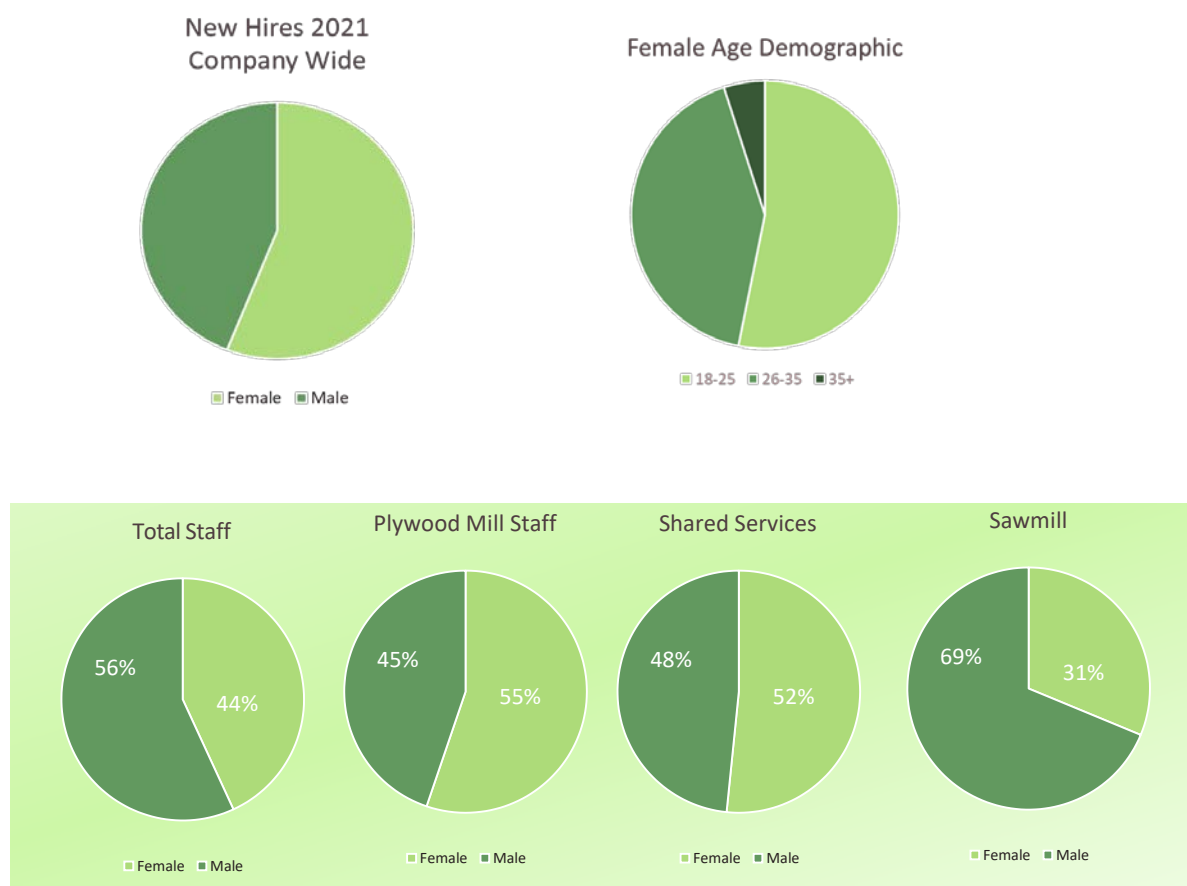


Figure7: Male to female workforce participation ratios

9. External Audits

❖ Forest Stewardship Council (FSC)

Burapha plantations have been FSC Certified since 2013. At the end of 2021 the company had 8,271 hectares under active management with 5,562 planted. Of the planted area 5,413.2 hectares were FSC FM certified. [SDG 8, 11, 13 and 15].

Burapha is audited annually for FSC Forest Management and FSC Chain of Custody certification standards. The results of the 2021 audit and of previous years is summarized in the table below.

Root Cause	Certification Body and Audit Year								
	SCS	GFA	GFA	GFA	GFA	GFA	GFA	GFA	GFA
	2013	2014	2015	2016	2017	2018	2019	2020	2021
First Aid Equipment			1 Minor	1 Major		1 Minor	1 Minor		
Environmental Management		1 Minor	1 Minor					1 Minor	
Occupational Health and Safety	2 Minor	3 Minor	1 Minor	1 Major	1 Major	1 Major 1 Minor			
Hazardous Materials Management	1 Minor	3 Minor		1 Major 2 Minor		2 Minor	1 Minor		
Community and Social Management	1 Minor			1 Minor			1 Minor		
Monitoring and Reporting				1 Minor	1 Minor		3 Minor		1 Minor
Records Management	1 Major 4 Minor	4 Minor		2 Minor	6 Minor	1 Minor		1 Minor	1 Minor
FMU Group Management				2 Minor	1 Minor				
Total	9	11	3	11	9	6	6	2	2

Table 1: FSC Audit results by root cause

❖ Lenders' Social and Environmental Advisor Audit and Monitoring Visit

As part of the facility agreement from investors to build the plywood mill, Earth Systems Pty Ltd consultants conducted the Environment and Social (E&S) Advisor audit in Q4 2020, with their final report issued to Burapha in January 2021. The audit included document review, field visits, and interviews with key staff, community members and government representatives. The audit assessed Burapha's operations against the IFC Performance Standard criteria and progress on the Environmental Social Action Plan.

The overview of the audit report states: *Burapha has made strong progress in terms of its environmental and social (E&S) management since the 2019 E&S Review. The company has successfully completed almost all actions contained in the Environmental Social Action Plan (ESAP) and company staff have received extensive training on a variety of E&S related themes over the last 12 months.*

Seventeen (17) actions were identified from the audit to establish the company's environmental and social work program for 2021, as listed below.

IFC Performance Standard		Number of corrective action requests
#1	Assessment of Management of Environmental and Social Risk and Impacts	4
#2	Labor and Working Conditions	3
#3	Resources Use and Efficiency	1
#4	Community Health, Safety and Security	0
#5	Land Acquisition and Involuntary Resettlement	2
#6	Biodiversity Conservation and Sustainable Management of Living Resources	4
#7	Indigenous Peoples	1
#8	Cultural Heritage	2

Table 2: Investor audit requested actions against IFC Performance Standards

❖ Investor List of Prohibited Activities.

As part of its Facility Agreement for the plywood mill project, our investors also require that Burapha does not practice in a range of activities under Schedule 9 of the Facility Agreement. These activities are deemed to be counter to their sustainability and social safeguards policy. The table below provides the list of these activities and their status for the reporting period.

LIST	PROHIBITED ACTIVITIES	Status for 2021
1	Forced labor or child labor	Nil
2	Activities or materials deemed illegal under host country laws or regulations or international conventions and agreements, or subject to international phase-outs or bans, such as: <ul style="list-style-type: none"> ozone depleting substances, PCBs and other specific hazardous pharmaceuticals, pesticides/herbicides or chemicals wildlife or products regulated under the Convention on International Trade in Endangered Species Fauna and Flora (CITES) unsustainable fishing methods 	Nil
3	Cross border trade in waste and waste products, unless compliant with Basel Convention and underlying regulations	Nil
4	Destruction of High Conservation Value areas	Nil
5	Radioactive materials and unbounded asbestos fibers	Nil
6	Pornography and / or prostitution	Nil
7	Racists, antidemocratic and or neo-Nazi media	Nil
8	In the vent of the following products form a substantial part of the projects primary financed business activities: <ul style="list-style-type: none"> Alcoholic beverages Tobacco Weapons and munitions Gambling, casinos and equivalent enterprises 	Nil

Table 3: Investor list of prohibited activities

10. Internal Audits

Burapha operates an internal environmental, social and safety auditing system – Non-Compliance Reporting (NCR) – that monitors the company’s compliance to its obligations including those of:

- Forest Stewardship Council
- International Finance Corporation Performance Standards
- Our lenders corporate social and environmental safeguard requirements
- Government of Laos laws and regulations
- Burapha’s own environmental, social and safety policies, standards and procedures.

The NCR auditing system has the following functions:

- Identifying potential or actual problems;
- Establishing agreed correction requirements and timeframes for implementation;
- Determining the type and effectiveness of corrective measures implemented; and
- Tracking and recording intervention progress.

The NCR hierarchy replicate those used by FSC to provide a consistent approach to issue/s identification and the way they are managed.

Under the Environmental, Social and Safety Management System (ESSMS) Burapha applies a continuous improvement system: Plan-Do-Check-Act. The NCR system forms part of this system. The ESSMS requires that all managers ensure safeguards are implemented effectively and achieve their intended outcomes. During 2021, six (6) NCRs were issued; mostly related to safety issues.

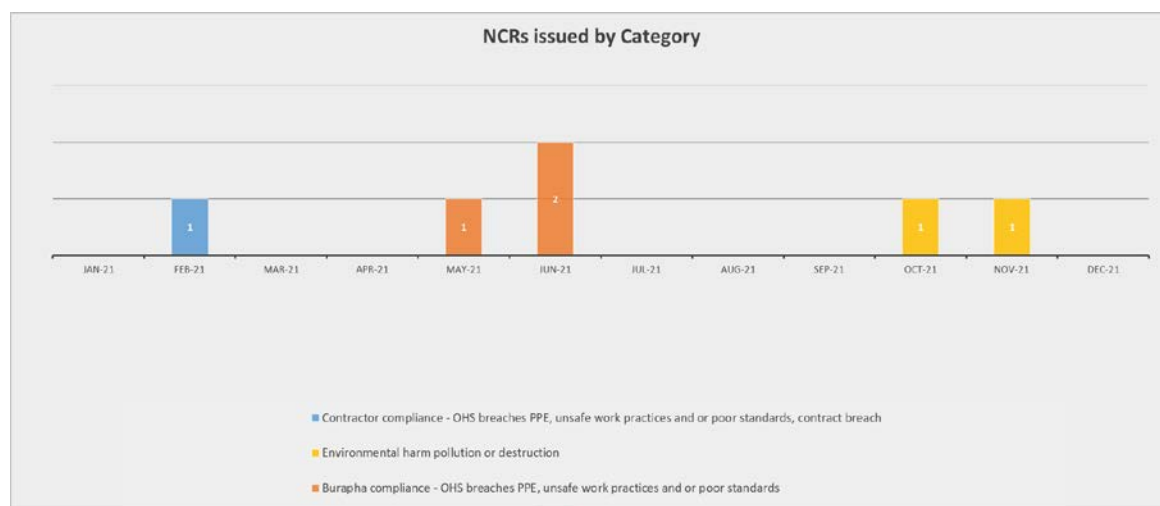


Figure 8: Instances of non-compliance from internal auditing in 2021

11. Environmental and social performances

❖ Environmental and Social Programs

The cost associated with implementing ESAP during 2021 was \$135,455.

- New partner village socioeconomic and livelihood baseline surveying.
- Special Management Area biodiversity surveys in Production Forest Areas.
- Discharge water quality testing at the plywood mill.

- Burapha's Verified Carbon Standard carbon credit application, whereby a specialist consultancy is assisting Burapha to prepare the project documents and carbon calculations for submission to Verra⁶.

In addition, Burapha provided \$25, 414 in partner village support requests including:

- COVID 19 prevention and control items;
- Support for villages cultural events;
- Support to district government counterparts for environmental initiatives such as fish release and tree planting programs;
- Village infrastructure upgrades including bridge, public building and road repairs.



Photo 7 Burapha partner village support programs

❖ Partner Village Baseline and Socioeconomic Livelihood Surveying

For every new partner village, Burapha conducts baseline and ongoing socioeconomic surveys to assess the benefits and impacts of our operations. The baseline assessment includes but is not limited to:

- Village demographics, health and education
- Village infrastructure
- Household incomes and expenditures
- Livestock ownership and trade
- Land holdings and agricultural pursuits
- Non-Timber Forest Products and Timber Forest Products income and utilization

In 2021 Burapha conducted baseline socioeconomic and livelihood of seven new partner villages in *B. Houaydua*, *B. Nonhinh* (Feuang District), *B. Saenchaleun* (Xanakham District), and *B. Namo*, *B. Namphaet*, *B. Phonsaen* (Meun District). All villages are nearby and work in Burapha's Production Forest Area concession.

⁶ Verra was founded in 2007 and manages the world's leading voluntary carbon markets program, the Verified Carbon Standard, as well as a suite of other programs including the Climate Community Biodiversity Standard.

12. Land Acquisition and Land Use Limitations

In 2020 Burapha started its land acquisition for plantation expansion into Production Forest Areas (PFA) in Xanakham, Hinheup, Meun and Feung districts of Central Laos. This move was approved by the Lao Government when granting an initial concession area of 2,000 hectares in July 2020 which facilitated new plantation establishment in 2021. Burapha was the first private forestry company allowed access to PFAs.

In recent decades, PFAs have been occupied and utilized by local villagers for livelihoods, such as subsistence and cash crops, practicing swidden agriculture, and animal grazing. Yet, PFAs, by law, are exclusively owned by the State and individuals have no legal claim to land within their boundaries. So, to ensure Burapha's expansion does not affect villagers negatively, vulnerable households are identified during land acquisition consultations. Burapha's policy provides them the right-of-refusal for plantation activities on land they need to prevent deepening poverty. FPIC rules are strictly followed.



Photo 8: community consultations and land use planning with new partner villages.

❖ Expanding the Land Department's skillset

Prior to Burapha engagement in PFAs, villagers occupying lands had no previous experience with the private plantation sector. Hence, for Burapha to be able to engage local communities effectively and obtain valid free, prior and informed consent, the Land Department was reorganized to improve efficiency in carrying out its two main functions: 1) land acquisition and 2) resolution of land use limitations (LUL). Burapha added community engagement specialists to the team in recognition of the challenges associated with customary use and the requirements to apply FPIC.

As of 2021, the Land Department comprises 14 positions and the staff's skills and experience now include field surveying, land law, environment management, forest ecology, GIS and mapping, social development, community engagement, project management, Government coordination, negotiation and conflict resolution.

❖ Land Use Limitations: progress in 2021

Burapha anticipated the social challenges that would appear when acquiring land within PFAs, therefore in addition to diversifying the skillset of the Land Department, the Company revised its land acquisition processes and established a Land Use Limitations (LUL) Register.

During initial village consultations with new villages, vulnerable households and their corresponding land plots are identified and excluded from plantation activities so livelihoods are not affected. Once plantation development commences, the LUL Register is used to record and track competing land use claims and/or outright villager refusals. The veracity and validity of each LUL claim are then assessed by Burapha in consultation with villagers, with Government counterparts as required, and claims are resolved. All plantation operations are withheld until all parties are in agreement with the final decision.

There were 24 such claims in 2021.

13. Biodiversity and Environmental Protection

In accordance with the Burapha business model, ESSMS and investor requirements Burapha has implemented a range of measures to improve environmental management performance in 2021.

Burapha only converts degraded (swidden) land for its plantation operations. Burapha applies protection status to a range of sensitive environments within its plantations and operational areas. These protected areas are termed 'Special Management Areas' (SMAs), and include:

- i. archeological, cultural and spiritual sites
- ii. buffer zones along water courses
- iii. steep lands above 35 degrees
- iv. wetlands and wetland buffers
- v. large standing trees, stands of existing native trees and pockets of remnant forest

As of 2021, 753 ha of plantation area has been set aside as SMAs, representing 24% of our current area under Burapha management. [SDG12 and 15]



Photo 9: Buffer zones protected around sensitive agricultural areas



Photo 10: Non-contiguous plantations established on previous swidden (slash and burn) agricultural land with mature forest boundaries. Burapha does not clear forests as part of its operations.

[Note: In the 2019 Annual Sustainability Report it was reported that a total of 833 hectares had been protected as an SMA. This has been revised as Burapha has removed from its SMA program agricultural lands and forests used by villagers for non-timber forest products. These areas are outside our plantations and therefore Burapha cannot control activities that occur within them.]

The practice of SMA protection has been part of the Burapha plantation model since the company was founded. Burapha has commissioned a long-term biodiversity study at representative SMA sites at three of its plantations: Nongpet Naseng (Naan) PFA in Hinheup district, Phu Yeuy PFA in Xanakham district and Phu Yeuy PFA in Feung district⁷. SMA representative site selection was based on a range of features including them being the typical size and floristic characteristic of the SMAs in the general plantation area.

Baseline biodiversity studies have been undertaken during the dry season and wet season since 2020. Surveying will continue over the plantation cycle - seven years - to determine the cumulative impacts, both positive and negative, on SMAs resulting from Burapha operations and villager influence for which Burapha has limited control.

14.Forestry Operations – Silviculture and Harvesting

In 2021, 761 ha of new plantation was established, plus 299 ha that were coppiced or replanted, bringing the total plantation estate to 5,562 ha. The newly established plantations were all within the PFA concession areas, predominately Feung and Xanakham Districts. [SD13]

⁷ Phu Yeuy PFA in Feung District SMA biodiversity site was introduced to the monitoring program in 2021.

Activity	Hectares
Plantation establishment 2021	761
Plantation regeneration (coppice and replanting)	299
Total plantation estate to date	5,562

Table 4: Summary of plantation expansion in 2021

Maintaining our social license to operate was achieved by the continued application of the *Burapha Model*, which gives priority consideration for employment and intercropping benefits to families that have been informally using the PFA where plantations are established. A new Labor Engagement Standard Operating Procedure (SOP) was implemented in 2021 to ensure equitable access for local communities to labor and intercropping benefits. In some districts where Burapha operates there was a considerable competition for labor from other industries, such as construction, thus resulting in shortages of available labor to undertake plantation work. In response to this shortage, contractors were engaged to undertake manual silviculture activities. This proved to be successful, and this practice will continue where labor shortages exist.

❖ Integrated Pesticide Management Planning

Burapha has developed an Integrated Pest Management Plan (IPMP) which a) identifies the need to use a permitted chemical pesticide as a measure of last resort and 2) an environmental and social risk assessment (ESRA) to identify the nature and degree of risk together with the measures for mitigation, and the monitoring requirements. [SDG12 and 15]

Pesticides used by Burapha during 2021 that are subject to the IPMP and ESRA are included in the following list:

Pesticide	FSC classification	WHO classification
Glyphosate	Restricted	III
Dinotefuran	Not listed	III
Abamectin	Highly restricted	Ib
Imidacloprid	Restricted	II
Captan	Restricted	U
Bifenthrin	Highly restricted	II
Metsulfuron-methyl	Not listed	U
Chlorimuron-ethyl	Not listed	III

Table 5: WHO categories and FSC restricted class pesticides used by Burapha

Burapha has a strong environmental and occupational health and safety culture including adequately training staff; appropriate PPE provision and use; proper storage and handling of potentially hazardous pesticides. Burapha is continuing to trial biological controls to reduce or remove dependence on chemicals and pesticides. The trial is part of the IPMP and ESRA.

In 2021, the type of herbicide used for weed management was changed from liquid glyphosate to a high-quality granular glyphosate and Cyflo, an adjuvant assisting rapid uptake of glyphosate. New low-flow rate battery powered knapsacks and air induction nozzles were also introduced. The new herbicide blend reduced the quantity of glyphosate used per hectare by approximately 25 %, in line

with Burapha's pesticide use reduction policy outlined in the IPMP. The improved application techniques reduced water applied by approximately 500 %, increased worker safety and the decreased the potential for offsite impacts by ensuring precise application and minimal spray drift.

❖ Third Party Timber Sourcing and Verification of Chain of Custody

Burapha has developed a comprehensive Standard Operating Procedure to ensure wood legality from third party suppliers. The Administrative Chain of Custody Procedure defines the administration processes, material categories, staff delegations and control systems to meet the requirements of the FSC Chain of Custody standard. Burapha applied the procedures diligently to its third-party suppliers. As a result of a successful FSC audit in September 2021, Burapha retained FSC CoC certification at the sawmill without a corrective action requirement for the second year in a row.

Total number of 3 rd party wood suppliers	3
Total volume of eucalyptus processed	1691 m3
Total volume of teak processed	853m3
Total number of export quality dry sticks / poles produced.	26, 500

Table 6: sawmill 3rd party timber sourced and gross production figures for 2021

All wood supplied to the plywood mill in 2021 was sourced from Burapha's FSC certified plantations.

Village / Plantation Name	Ha	Actual Total Vol (m3)
Nakhanthoung	60	7,295
Houakhoua	30	3,950
Hatkiang	55	8,681
Houaydua A	131	14,096
Phonmouang A	182	15,721

Table 7: Burapha plantations harvesting summary for plywood mill wood supply

15.Forestry Operations Grievances

Burapha's Grievance Management System extends to any group or individual who believe that they have been negatively impacted by Burapha's forestry-related operations. Registered grievances are reviewed for progress and subsequent by the company's senior management team.



Figure 9: Registered Grievances

There were two issues raised in 2021. One involved an incident where spoil from plantation road construction entered a farm dam, and the second was when a farm fence was damaged during tree felling operations. Both were resolved.

16.UXO

There were no UXO-related incidents or required management actions in 2021. Burapha operations occur in central Laos where there is very low UXO contamination. However, the risks do exist in locations that were historically used as military camps or live firing ranges. Assessment of UXO risk commences early in the land acquisition phase and continues through to operation. Burapha's has a UXO Chance Find Procedure to deal with the unlikely event that UXO's are identified during any stage of the land acquisition/production lifecycle. [SDG 18]

17.Outgrowers

Burapha has developed and is implementing an Outgrower Scheme (OGS), in partnership with the International Finance Corporation's (IFC) Lao Agroforestry Project which provides support to farmers who wish to grow their own trees, with the potential of selling them to Burapha at the time of harvest. The support includes seedling, fertilizers and or technical services which are considered as economic incentives for farmers to engage in tree plantations. The OGS was not expanded during 2021 and remained at 434 ha and 255 participant families. (SDG 9, 12, 13 and 15]

18.Plantation Fire Management

Fire poses the greatest risk to our plantations and local communities. Almost all plantations, except for those near the sawmill at Nabong, are located well away from village areas. Villagers commonly use fire as a tool for clearing lands in preparation for crops in the coming wet season from May and October. Backburning of land generally takes place over the dry season which also coincides with the hottest months of the year, February to May. Burapha has a comprehensive fire management plan which includes the following:



- Consultation: Engagement with local village communities to discuss fire risk is an effective method of reducing fires. Meetings on fire management are increased with partner villages as the drier months approach.
- Communication: Each year Burapha writes to each partner village to explain Burapha's fire management activities, including fire break establishment and undergrowth management. The letter also outlines Burapha policies and practices on fire management as well as contact numbers of local Burapha staff. The letter is signed by Burapha and village authorities as an agreement of understanding.
- Incentives for farmers: Burapha provides a *call before you burn payment* to villagers who inform us of their intent to conduct burning near our plantations. This forewarning allows Burapha enough time to provide technical assistance to the villager on methods of fire containment, conduct fire breaks if required, and deployment of a firefighting unit and team during the backburning operation if required. The *call before you burn* incentive is also outlined in the annual fire management letter to villages. Burapha also provides a payment to anyone that reports and contains a fire in or around our plantations.
- Information: Fire awareness posters are placed at the entrances of all plantations. The posters include a list of banned activities including smoking and leaving unattended cooking fires. The posters also have the contact numbers of local staff who can respond should a fire emergency occur.
- Monitoring: Villagers often use plantations for access and for NTFP. *Fire Guards* are employed from local villages between February and May each year to routinely patrol the plantations and warn villagers of fire threats. The Fire Guard advises on what activities can or cannot occur within the plantation. In 2021, over 66 casual *Fire Guards* were employed by Burapha. Automated satellite monitoring is used to send emails to responsible District Managers if a fire is spotted within the vicinity of plantations.
- Firefighting preparedness: In 2021, Burapha had 7 x 1000 L firefighting units on trucks or tractors and 27 x 400 L units on ATV style vehicles positioned inside plantations. 4 x 400 L firefighting units on pickups were available to be deployed from District Offices. 55 x firefighting knapsacks were available on firefighting units and at camps.

19. Fire Statistics

Year	2018	2019	2020	2021
Total Area	25.4	23.4	74*	14.7
Main Cause				
Suspected Arson		23%	20%	88%
Adjacent Land Fire Escape	100%	67%	80%	12%
*44.6 hectares burnt from one single escape event				

Table 8: Summary of plantation fire statistics

Monitoring has identified that the main causes of plantation fire in order of risk is:

1. escape from neighboring back burning practices,
2. general community complacency, such as discarded cigarettes or cooking fire escape, and
3. possible lightning strike.

❖ Fire Management Training

In advance of 2021's fire season, 26 fire risk management training sessions were conducted with 236 participants, 81% of which were farmers and Burapha's daily labor from local partner villagers.

The training topics included:

- Use and maintenance of mobile fire-fighting units and manual fire control equipment;
- Use of fire extinguishers;
- Use of fire personal protection equipment and first aid;
- Fire reporting;
- Fire containment; and
- Plantation management practices that reduce the risk of fire including fuel reduction measures and fire break construction.



Photo 11 Burapha forestry team fire management training group photo

20. Burapha seeking carbon certification

In September 2018, UNIQUE Consultants provided Burapha a report outlining their findings of a business feasibility assessment on Burapha's interest to achieve carbon certification through a voluntary carbon market. The report concluded that, 'carbon credit certification is financially highly profitable and will generate additional revenues streams to Burapha's expansion'.

In 2019, UNIQUE was commissioned to steer the company through carbon certification with the Verified Carbon Standard (VCS). Unfortunately, continued Covid travel restrictions delayed the third-party audit until Q4 2021, at which time the audit was completed remotely. Burapha will submit its project documents to Verra⁸ in the first half of 2022.

21. Working with NGOs and stakeholder partner

❖ Grow Asia

Grow Asia was established by the World Economic Forum, in collaboration with the Association of Southeast Asian Nations (ASEAN) Secretariat, to bring together governments, the private sector, non-governmental organizations (NGOs) and other key stakeholders in the region to convene, facilitate, and scale efforts that promote more inclusive, resilient and sustainable food systems in Southeast Asia.

In 2021 Burapha partnered as a case study with Grow Asia in their ASEAN Guidelines on Promoting Responsible Investment in Food, Agriculture and Forestry Program and has ongoing participation in the ASEAN RAI Community of Practice (COP).

⁸ Verra was founded in 2007 and manages the world's leading voluntary carbon markets program, the Verified Carbon Standard, as well as a suite of other programs including the Climate Community Biodiversity Standard.