



INVESTMENT OPPORTUNITY AND ADDING VALUE IN SOUTHEAST ASIAN PLANTATION FORESTRY

Case Study of Value Creation
and Risk Mitigation in a
Malaysian Hardwood Plantation



Investment Opportunity for Sustainable Plantation Forestry Investment in Southeast Asia

Many Southeast Asian countries are attractive for developing plantation forestry resources given their proximity to major markets with increasing demand, both for regional consumption or processing as well as export to global markets. Furthermore, Southeast Asia has a long history of managing tropical plantations and well-developed agribusiness infrastructure.

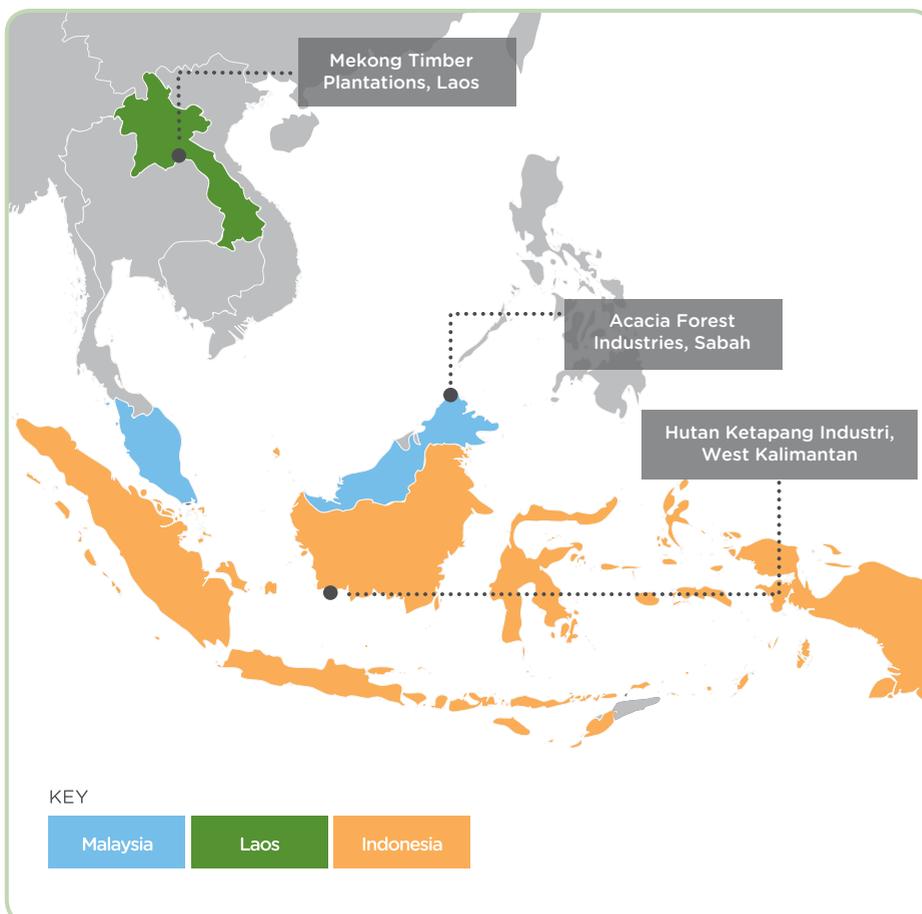
The region also benefits from favourable growing conditions, climate, and soils giving it a competitive advantage. Investment opportunities across Southeast Asia vary based on local market and political conditions, land tenure, foreign investment and ownership policies, competition for suitable land, and several other key factors. Despite the market drivers for investment in plantation forestry, institutional ownership of such assets in Asia has lagged relative to other regions. New Forests believes that this creates an opportunity for institutional investors seeking higher forestry returns, diversification into new markets, and the capacity to support the region's transition to a sustainable, responsible forest industry.

New Forests has been actively developing its forestry investment program in Southeast Asia since 2008. In 2012, New Forests closed its Tropical Asia Forest Fund (TAFF). The investment strategy of TAFF has been to invest in sustainably managed forestry assets in Southeast Asia for a variety of end markets, including timber, rubber, bioenergy, and environmental products. New Forests has developed a portfolio of assets for TAFF in Malaysia, Indonesia, and Laos.



New Forests adds value to TAFF assets through disciplined forest management, a focus on market development, a best-in-class approach to responsible investment, and strengthening timber marketing and supply chain management.

This case study focuses on how New Forests' active management at TAFF portfolio investment Acacia Forest Industries (AFI) has grown asset value by nearly 80% since the investment by TAFF in 2013.



ACACIA FOREST INDUSTRIES FACTS & FIGURES

Size:

25,000-hectare gross area located in Sabah, Malaysia

Background:

Plantation initially established by Sabah government in the 1980s and after changing ownership structures over time was effectively moribund at the time of TAFF investment

Current ownership:

TAFF now owns approximately 84% of the asset through a joint venture with government entity Sabah Forestry Development Authority (SAFODA)

Investment strategy:

Liquidate established poor performing *Acacia mangium* crop and plant a high-quality, more valuable *Eucalyptus pellita* crop; implement operational improvements, improve governance and risk management; and develop shared value with local communities

Driving Productivity and Value through Species Selection and Silviculture

In 2015, AFI shifted from developing new acacia plantations to planting eucalypts. The investment in eucalypts has been driven by greater disease resistance and better marketability. Compared to the acacia species, eucalypts have greater genetic plasticity to counter disease threats; can be used in a wider variety of end markets (e.g. saw log, veneer, and pulp); and can access larger, more liquid markets across China and other parts of Asia. Prices for eucalypts are 10–20% higher than acacia.

New Forests is focused on driving biological growth from newly established eucalyptus plantations, as measured by Mean Annual Increment (MAI, a measure of tree volume growth). An increase of 1 MAI above the current base assumptions at AFI is expected to result in an increase of approximately USD 4 million in valuation. The new *E. pellita* planted since 2015 is expected to have a base MAI of 16 m³/hectare/year, and New Forests' forecasts increase over time to achieve a target MAI of 26 m³/hectare/year by 2026, as shown in the "New MAI Target" line in the figure below. The "Original MAI Assumption" line indicates the original trajectory for MAI improvements over time, without the benefit of added productivity and value from better site management, management improvements, soil nutrition, and genetic gains.

New Forests is driving productivity improvements through the following activities:

Research and Development (R&D) and better genetics

New Forests has implemented a focused R&D program at AFI to drive increased growth rates and lower costs in the plantation business. This includes an investment in improving genetics. AFI has partnered with a company called Gondwana Genomics and with another TAFF portfolio company to deploy Marker Assisted Selection technology to fast track and improve genetic selection with the expectation of more rapidly increasing plantation productivity.

Improvements in forest establishment and management

New Forests has encouraged a number of activities to improve plantation establishment and management to drive productivity:

- Investment in and improved management of nurseries, which has led to higher quality seedlings with greater vigour that have improved survival rates;

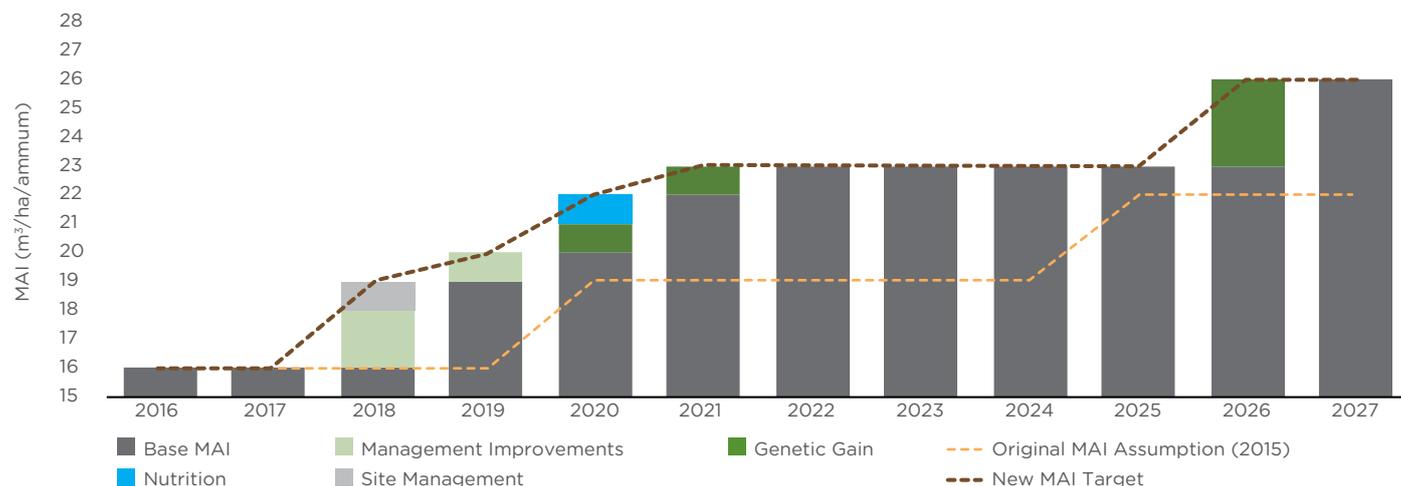
- Development of clonal cuttings, which are the result of crossing two "parent" genotypes to combine desirable traits from each to create a hybrid, which is then propagated to create identical clones from cuttings. This is often a faster way to breed for desirable traits than using natural seedling production (note this is not genetic modification);
- Improvement in seedling supply chain and handling, which limits risk for "seedling shock" where poor handling can lead to stunted growth or even death of the seedling;
- Better site preparation and enhanced cultivation techniques, such as larger planting pits with more soil loosened around the seedling at establishment; and
- More regular weed control and site-specific weeding strategies.

Improved Log Marketing and Logistics

Prior to TAFF's investment, there were multiple parties undertaking marketing and sales of the AFI timber products, which created a counterproductive environment that left buyers unsure with whom they should be dealing. New Forests led a rationalisation of the marketing arrangements by geographies and product with performance incentive contracts and agency agreements. This ensured that end-use customers received a clearer message from log marketers and has resulted in stronger prices and brand loyalty based around proper utilisation of the certification status of the wood received for both chip and log sales from the AFI estate.

Shipping costs have also been significantly reduced with streamlined marketing arrangements. The logistics team has developed relationships with shipping agents, which have enabled a reduction in shipping costs of approximately USD 10–20 per tonne. This is partly due to the more consistent, smaller shipments (versus infrequent large shipments of logs that was the norm prior to TAFF's investment).

PLANNED MAI IMPROVEMENTS AT AFI THROUGH ACTIVE MANAGEMENT



Optimised Forestry Management Planning

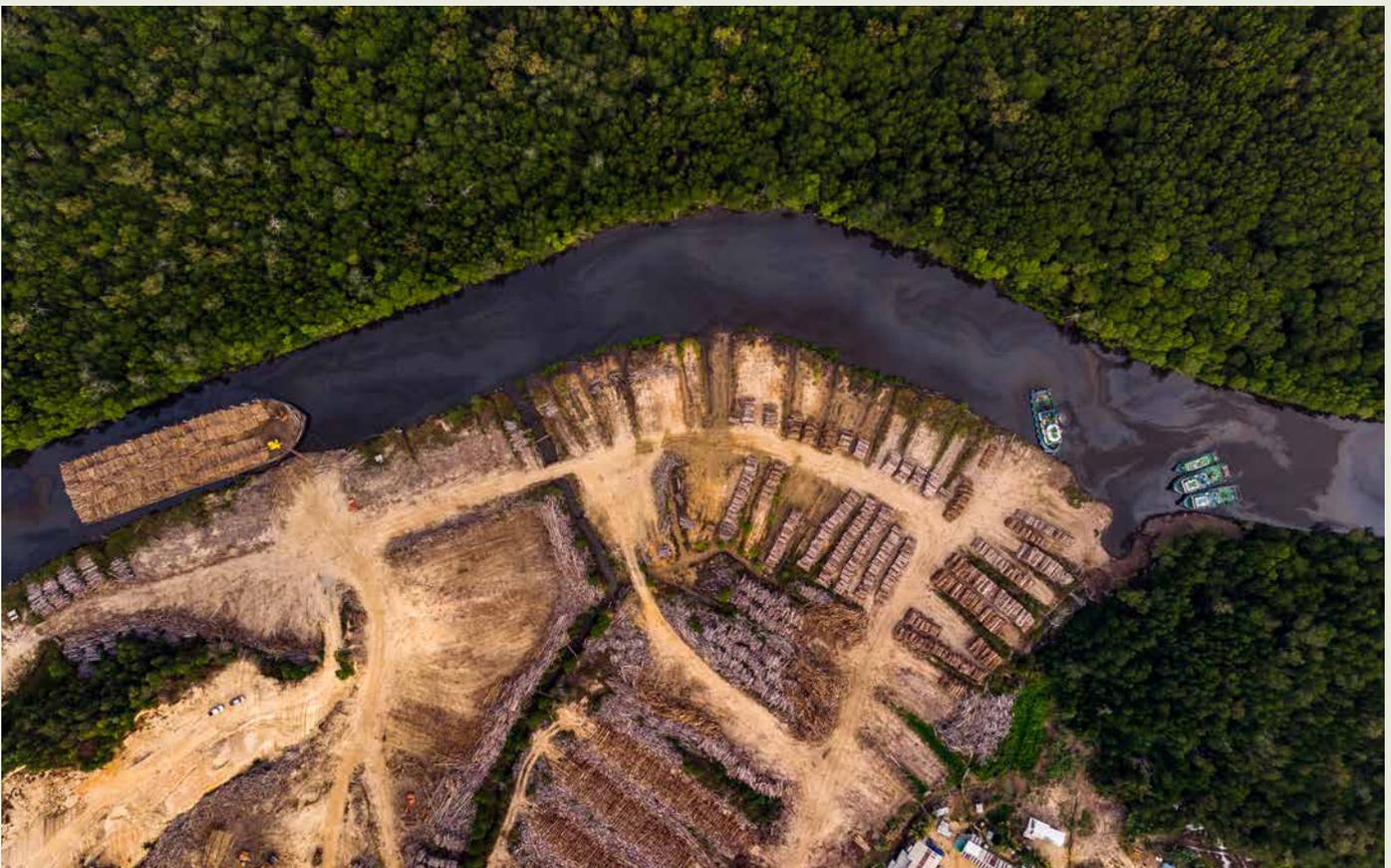
New Forests' expertise in forest estate modelling has directly driven management decisions that create value at AFI. Detailed forest simulations allow modelling of the estate to optimise for net present value (NPV) of the estate within given realistic management constraints. This allows forest managers the ability to examine, test, and implement medium and long-term strategies based on IRR/NPV maximising principles.

Enhanced Environmental and Social Management Capacity

Since TAFF's investment in 2013, New Forests has focused on supporting capacity development in environmental and social management at AFI, including working with the company to help ensure compliance with TAFF's sustainable investment requirements. A major focus has been expansion of stakeholder engagement and planning, including through the completion of a Social Baseline Study, Participatory Mapping, and development of a new Stakeholder Engagement Policy and Social Forestry Plan. These programs address legacy land tenure issues that are present in the AFI operating area and help to address risks from encroachment and conflicting land use interests. The company is currently piloting agroforestry programs through a technical assistance agreement with a leading international agroforestry research institution.

AFI has significantly progressed in achieving compliance with New Forests' requirements for the use of third-party standards and certification as well. In 2016, AFI achieved Forest Stewardship Council (FSC)[®] certification,¹ as the company commenced harvesting activities of its current rotation. Previously, certification had been held by one of the parent entities related to AFI, and not all compliance systems were directly embedded into AFI's business and operating environment. Along with achieving FSC forest management certification, AFI has been undertaking an extensive program to demonstrate compliance with the IFC Performance Standards, which are international best practice guidance for managing social and environmental impacts. The AFI business now sets regular targets for improving its compliance rating under the IFC Performance Standards and for maintaining FSC certification. This compliance and management approach also supports an important financial benefit; FSC forest management certification supports AFI's timber marketing strategy and provides access to better market opportunities including new markets and higher prices for some products.

New Forests, as the only institutional forestry investment manager with a dedicated presence in the region, is well positioned to expand its investment program in Southeast Asia. New Forests targets investments where active management can add value with a focus on senior management and resourcing, silviculture and operations, market development, information and business systems, and ESG. To learn more about New Forests' investment programs in Southeast Asia, contact clientservices@newforests.com.au.



¹ Acacia Forest Industries Sdn Bhd holds certificate code SCS_FM/COC-00142P and license code FSC-C102419. New Forests is FSC non-certificate license holder FSC-N002114. FSC is not responsible for and does not endorse any financial claims.

Focus on Governance and Risk Management

Since investing in 2013, New Forests has placed new directors on the AFI board alongside directors from SAFODA. The executive management of AFI has improved with the recruitment of a new CEO and a key senior position for resource management. Human resource management has improved through an emphasis on efficiency, succession planning, training, and remuneration aligned to key performance indicators. Through the board of directors, New Forests has also implemented policies that enhance corporate governance and risk management (e.g. workplace health and safety, environmental, and social), including monitoring systems for compliance with policies.

AFI has recently implemented a new cloud-based system for capturing and managing workplace health and safety, risk, and compliance issues. AFI chose to implement this system to strengthen its performance in the following areas:

- Improve safety management via an integrated incident, equipment, and risk management tool that is aligned with New Forests' risk management program;
- Support certification standards, especially for safety, quality, and the environment;
- Capture checklists and reports from employees and contractors where non-conformances and trends are easy to see and manage; and
- Ensure that employees and contractors are compliant within their roles.

Using Technology to Improve Controls and Increase Value

AFI has deployed systems, technology, and software to improve controls and increase value.



Enterprise Resource Planning (ERP)

Introduction of accounting, contracting, and payroll systems across the AFI business. This has streamlined the administrative functions and achieved efficiencies and improved reporting, allowing management at all levels to better interrogate business areas to allow them to make better decisions.



Forestry Information Management Systems

Better technology to undertake more complex optimised forest estate modelling. The information stored on areas, growth rates, yields, and costs is now more robust and readily available for strategic decision making.



Event Management System

Enables the management team to monitor and audit the workforce with a focus on safety and compliance.



ABOUT NEW FORESTS

As global demand for resources grows, there is a need to increase productivity while ensuring the conservation of the world's remaining natural forests. New Forests seeks to create investment strategies that provide lasting solutions to this challenge. Through responsible management of forests and other real assets, we create shared benefit for investors and local communities alike. We believe that meeting the needs of a broad range of stakeholders will provide better returns over the long term.

New Forests has international reach, with offices and assets in Australia, New Zealand, Southeast Asia, and the United States. This gives us a global perspective combined with local expertise that allows us to understand and manage our assets more effectively. Wherever we operate in the world, our strength lies in our people and their drive to make investments that create the best possible outcomes. By investing with integrity and transparency we aim to generate strong returns while helping tackle some of the world's great sustainability challenges.

To learn more, visit us at www.newforests.com.au or contact us at info@newforests.com.au.

For more information about forestry investment opportunities contact clientservices@newforests.com.au.

New Forests is a proud and active member of industry and investment groups seeking to address global environmental, social, and financial risks facing our world and society through sustainable and responsible investments.



New Forests is also part of the Certified B Corp community, a global movement of people using business as a force for good.



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