



Federal Ministry
of Food
and Agriculture



STRENGTHENING SMALLHOLDER COMMUNITY-BASED TEAK PLANTATIONS IN THAILAND.

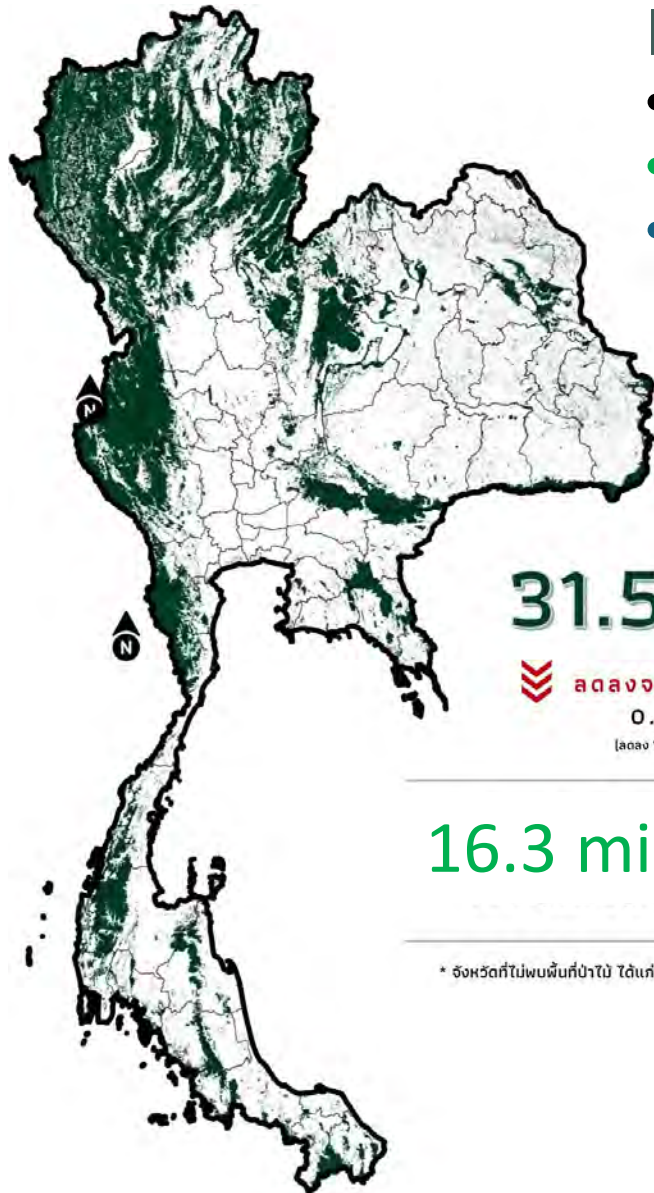
Yongyut Trisurat

Kasetsart University, Thailand

ITTO-BMEL Smallholder Teak Plantation Project

STOCKHOLM 2024
WORLD
CONGRESS
26th
IUFRO
FORESTS & SOCIETY TOWARDS 2050

Introduction



National Forest Policy

- 40% of the country
- Conservation 25% (23%)
- Production 15% (7.2%)



- 1) Community- & remnant forests (6.6%)
- 2) Forest plantation: 0.6% (1.2 M ha)

31.57%

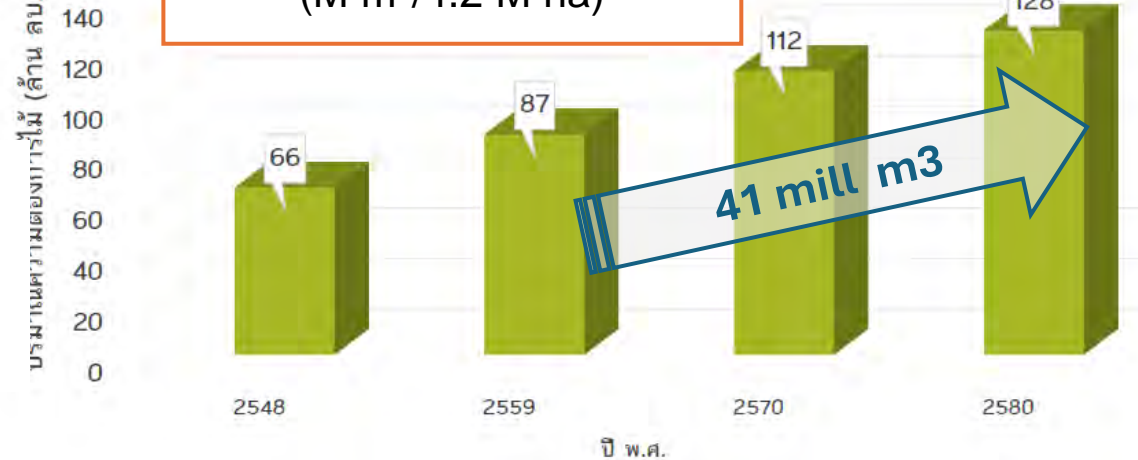
ลดลงจากปี 2564
0.02%
(จาก 76,459.41 ไร่)

16.3 mill ha

* จังหวัดที่ไม่พบพื้นที่ป่าไม้ ได้แก่ นนทบุรี ปทุมธานี และอ่างทอง

ปริมาณความต้องการใช้ไม้ (ล้าน ลบ.ม.)

Wood Demand in Thailand (M m³/4.2 M ha)

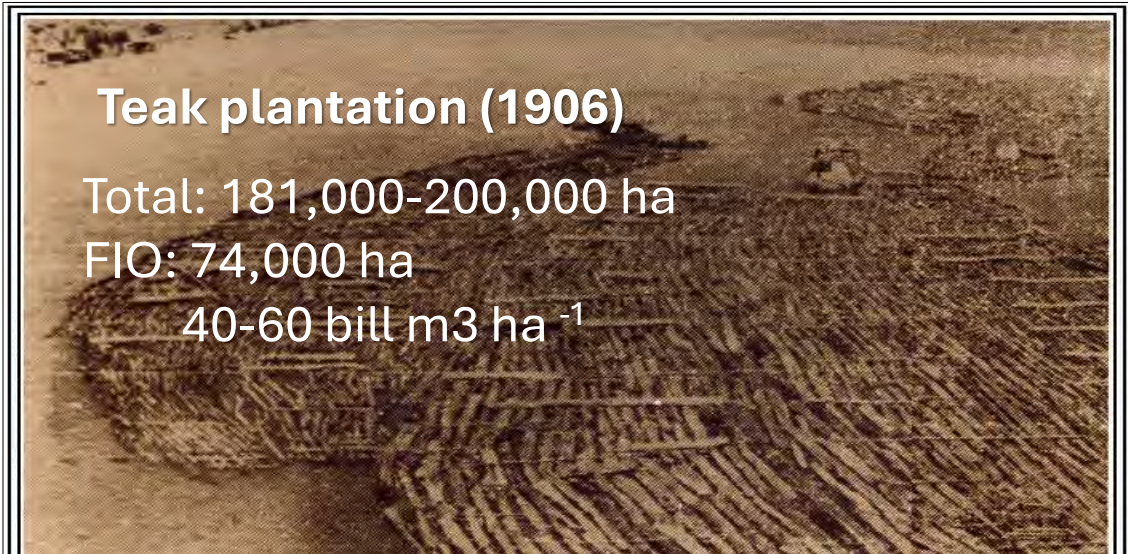


Teak plantation (1906)

Total: 181,000-200,000 ha

FIO: 74,000 ha

40-60 bill m³ ha⁻¹



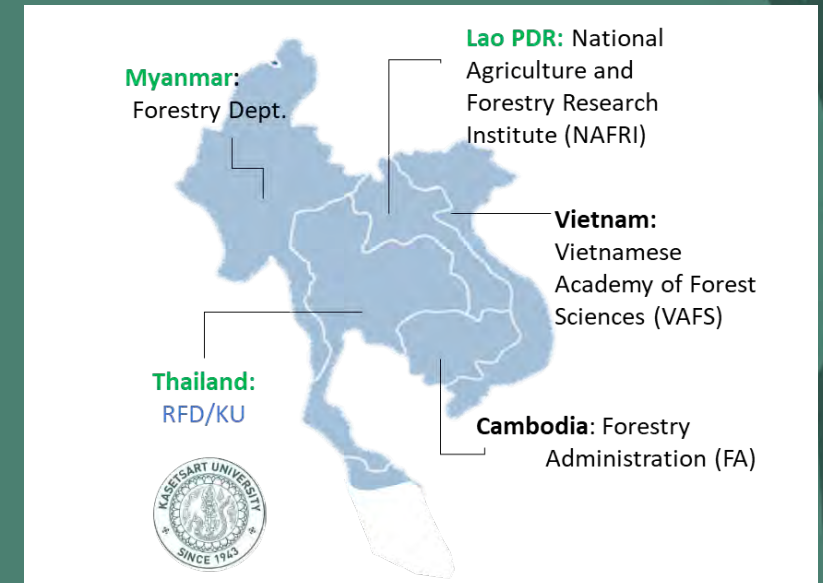
Phase I Teak Project



Federal Ministry
of Food
and Agriculture



ITTC 54 Yokohama in 2018



Gerhard Dieterle, EX-ITTO ED (left); Matthias Schwoerer, BMEL-Germany (right)

**ITTO-TEAK
IN MEKONG**



ITTO Project: “Enhancing Conservation and Sustainable Management of Teak Forests and Legal and Sustainable Wood Supply Chains in the Greater Mekong Sub-region” (PP-A/54-331)

Phase I Output/Outcome

TEAK IN MEKONG FOR A SUSTAINABLE FUTURE



YONGYUT TRISURAT, HWAN-OK MA
TETRA YANUARIADI, PROMODE KANT
AND P.K. THULASIDAS
Editors



Bi-monthly online

Teak Mekong Newsletter

June 2019 - Volume 1(1)

Inside this issue

- 01 ITTO Teak Project Signing Ceremony
- 02 Project Launching Report
- 06 Launching Ceremony
- 09 Field Trip to Lampang Province

Welcome to the first edition of the online Teak Mekong Newsletter!

Signing Ceremony of the Teak Project during the International Tropical Timber Council (ITTC) meeting at its 54th Session in Yokohama, Japan on 6 November 2018

International Tropical Timber Organization (ITTO) launches project on sustainable teak management in Greater Mekong Sub-region entitled "Enhancing Conservation and Sustainable Management of Teak Forests and Legal and Sustainable Wood Supply Chains in the Greater Mekong Sub-region".

The Federal Republic of Germany through the Federal Ministry of Food and Agriculture (BMEL) financed the first stage of activity in the Greater Mekong Sub-region (GMS) covering 5 countries, namely Cambodia, Lao PDR, Myanmar, Thailand and Vietnam. The signing ceremony of the agreement between ITTO and the Government of Germany for the commitment of funds to the teak project was held during the International Tropical Timber Council (ITTC) meeting at its 54th Session in Yokohama, Japan on 6 November 2018.



Matthias Scheer, Germany, and Gerhard Dietsch, Executive Director, ITTO, launching the project



Vientiane Times

Phongsavanh BANK
Read more news at www.vientianetimes.org.la

Forum building framework for teak value chains

Times Reporters

Lower Mekong countries comprising Laos, Cambodia, Myanmar, Thailand and Vietnam are discussing efforts to develop and manage sustainable value chains for teak to contribute to socio-economic development.

The National Teak Forum hosted by Laos from February 19-20 is discussing issues around sustainable teak value chains in the country by exchanging lessons from the promotion of teak-based sustainable forest management (SFM) among the private sector and community forest enterprises. Topics being covered include technical aspects such as growing seedlings, silviculture, forestry management, value-adding processing and economic factors, particularly investment, incentive mechanisms and credits. The forum will also help to enhance teak value chain research and sustainable teak forestry in the Lower Mekong Region.



Participants from lower Mekong countries pose for a group photo at the National Teak Forum in Vientiane.

day meeting in Vientiane to share lessons learnt, experiences and project planning to the future, and a field excursion to Luang Prabang province. The opening of the meeting was attended by the Deputy Director General of the National Agriculture and Forestry Research Institute (NAFRI), Dr Chansomphone Phongsavanh, International Tropical Timber Organisation (ITTO) Project Manager, Dr Ma Hwanok, German Federal Ministry of Food and Agriculture (BMEL), representative, Mr Stephan Wagner, and Deputy Director General of the Royal Forest Department of Thailand, Mr Jeeak Chakwadee. NAFRI, as the Lao representative, is implementing several key projects in conserving teak genetic variation through improved management of existing seed production areas, seed orchards and provenance trials. The project activities support local communities and stakeholders through the establishment of demonstration plots and field training and information sharing, and knowledge management, networking, policy development and outreach on the sustainable management of teak forests in regional and international areas. The project is being implemented in Luang Prabang and Xayboun provinces from March 2019-March 2021. Many rural people in the northern provinces of Laos depend on planted teak forests for their livelihoods. They gain employment and income from teak forestry

as the most economically viable, land-use option, particularly in remote and underdeveloped areas. The multiplier effect of local employment at small scale wood processing and service sector levels is significant when value-added activities are developed in the local economy and saving the forest dependent workforce. In Laos, teak is a priority native species, and the area of natural teak forests was estimated to be about 70,000 hectares in 2010.

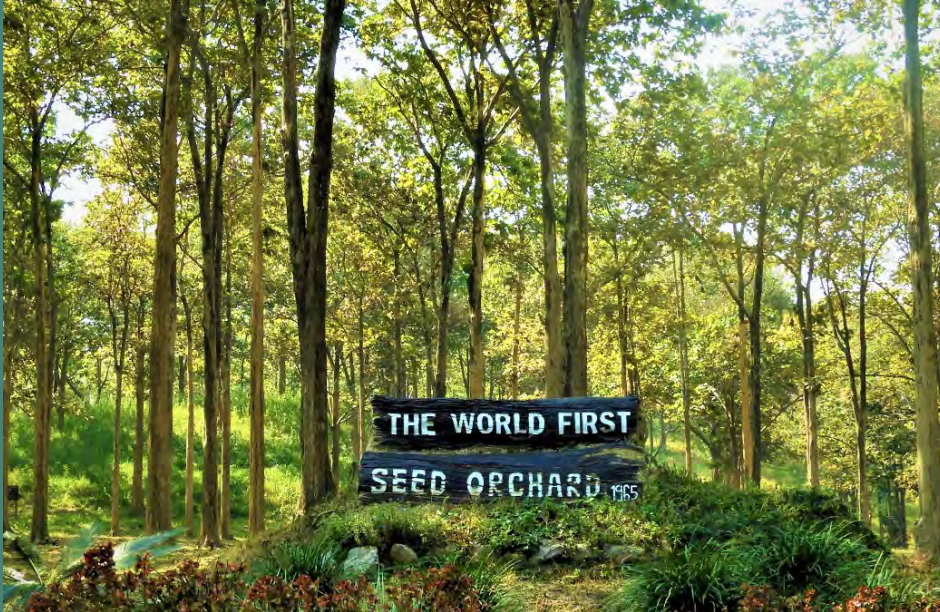
Teak-based value chains have been established by private companies and rural communities. The Department of Forestry has promoted community-based teak plantations with an estimated 16,000 hectares mainly located in Luang Prabang and Xayboun provinces. The activities are part of the government's Forest Strategy 2020 goal which include increasing transparency of natural resource, policy and disseminating information on forest cover, forestry

management, planning levels, plantation and management. Teak-based value chains are the physical basis of the teak value chain, and the multiplier effect of local employment at small scale wood processing and service sector levels is significant when value-added activities are developed in the local economy and saving the forest dependent workforce. In Laos, teak is a priority native species, and the area of natural teak forests was estimated to be about 70,000 hectares in 2010.

Thailand, 20, 2020

20 bi-monthly issues
41 authors
27 chapters

Challenges:

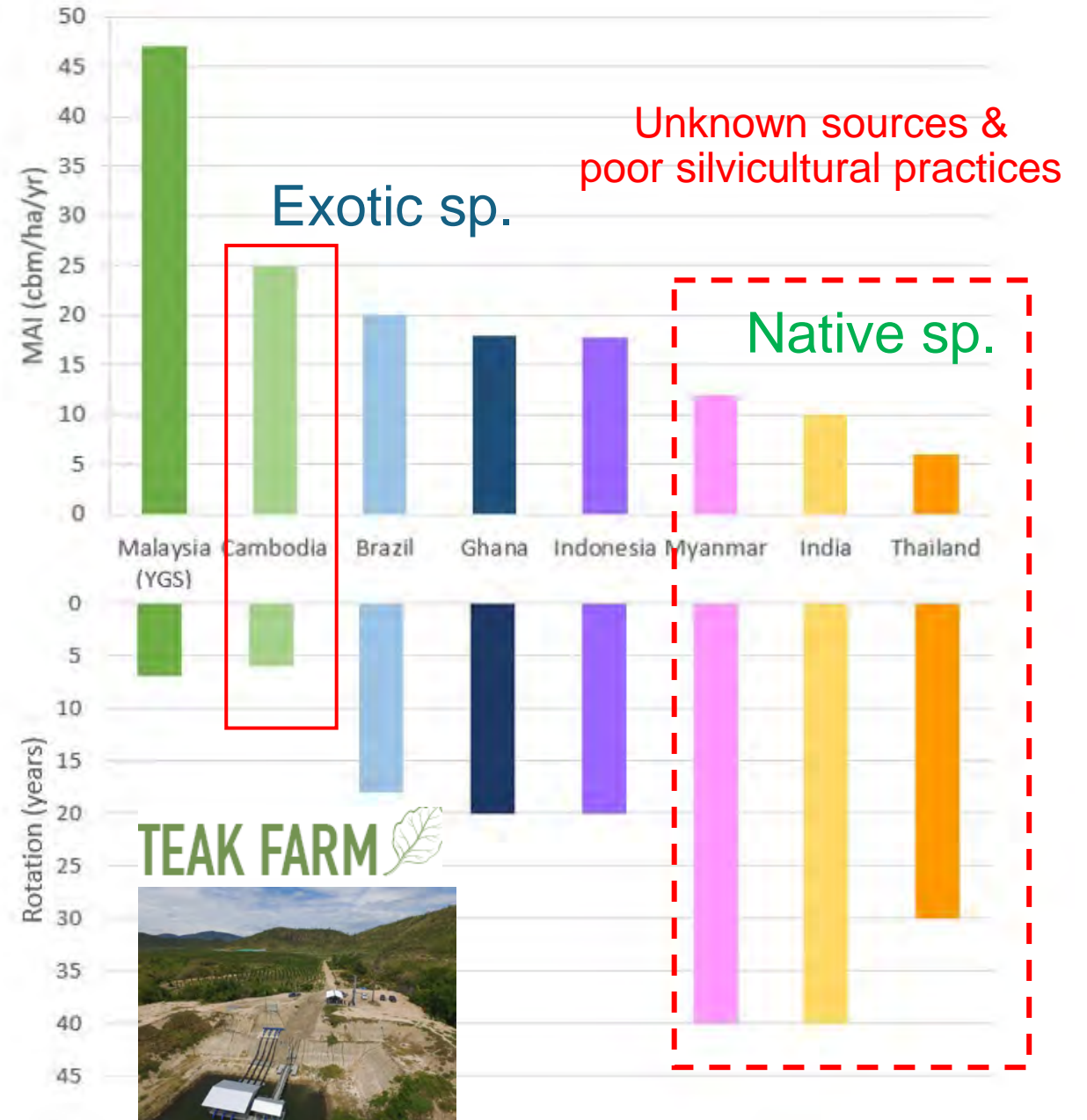


**Poor silvicultural practices
(20-year old)**



Smallholder is the key
(78%; <3 ha)

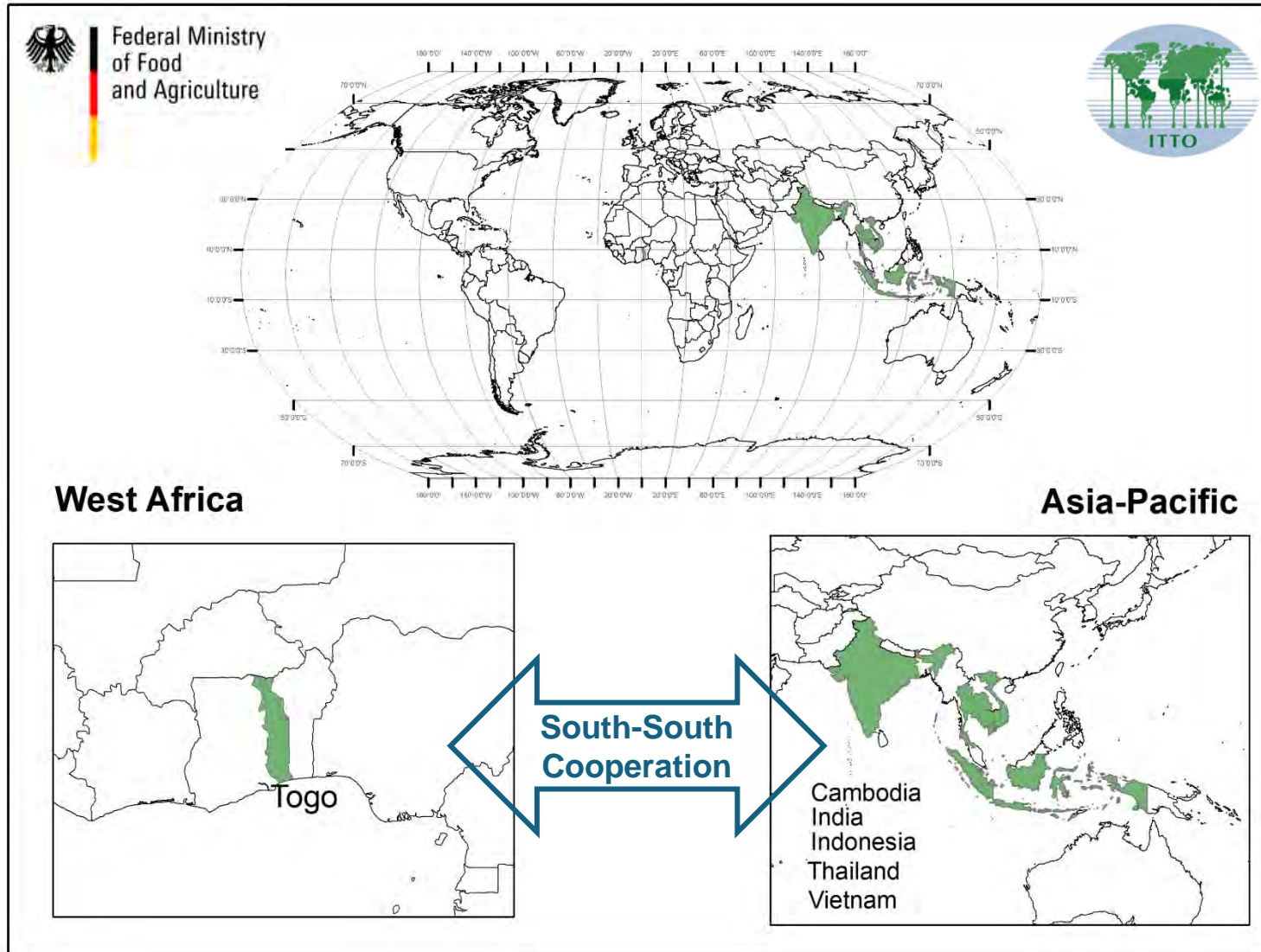
Low productivity
THA's MAI ~ 5 m³/ha/yr



Challenges: Timber legality & high transaction costs



ITTO-BMEL Project Phase II



Specific Objectives

- To improve the production of **high-quality timber** from teak and other valuable species plantations established by smallholders and communities;
- To improve **livelihoods and social and environmental** outcomes through better silviculture practices, financial schemes (long rotations) and access to voluntary carbon markets, etc.

Opportunity: Tree Collateral Schemes

3. Final harvest - optimal rotation period

20-30 years

- + better wood quality
- + higher value
- + **carbon credit (passive income)**
- + biodiversity/env.



1. Plantation establishment

10-15 years



Premature harvest

Financial contingency

2. Use of tree collateral-based loan

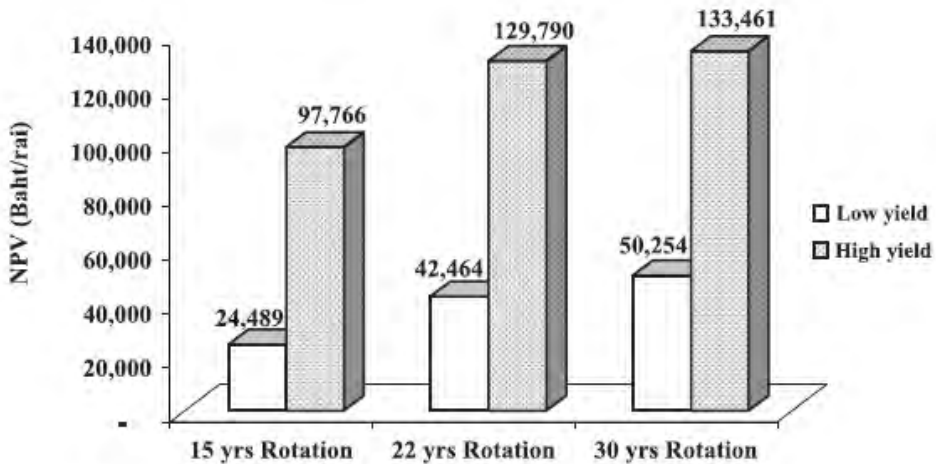


..... de facto management amongst most smallholders w/ premature harvest

- - - Ideal management, assuming no urgent financial needs

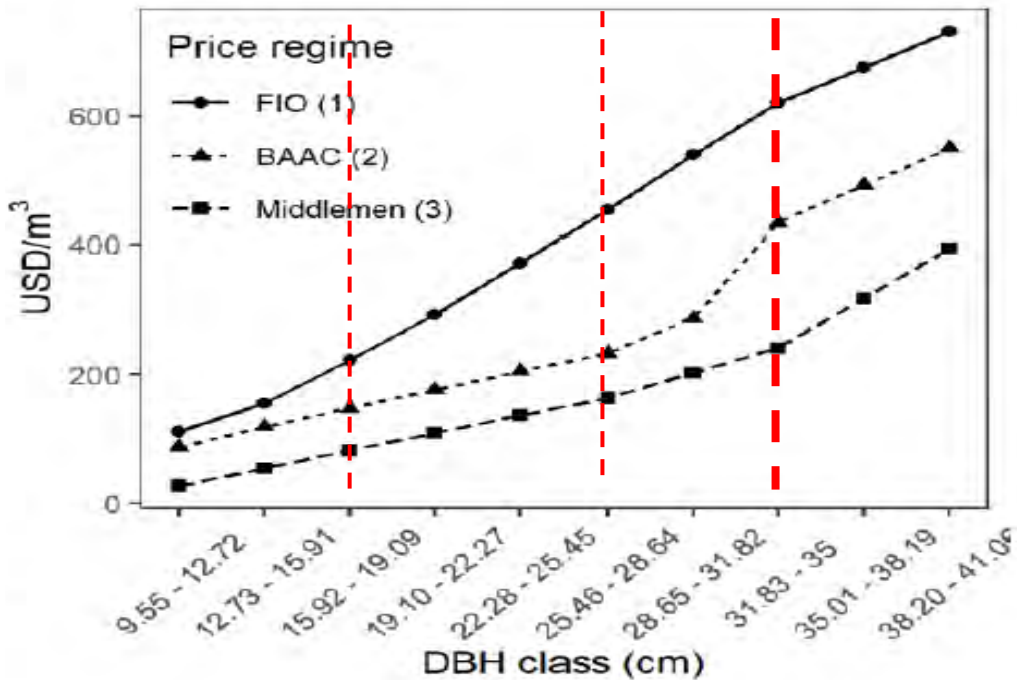
_____ Improved management through tree collateral, bridging financial needs (with numbered steps)

Economic Analysis



1 USD = 35 THB

Fig. 6. NPV diagram of comparison rotation of teak plantation in case of FIO prices and high cost



Teak
B/C ratio
HSI- 1.5-11.5
LSI- 1.1-8.0
NPV (10%)
HSI 3,800 USD
LSI 2,000 USD



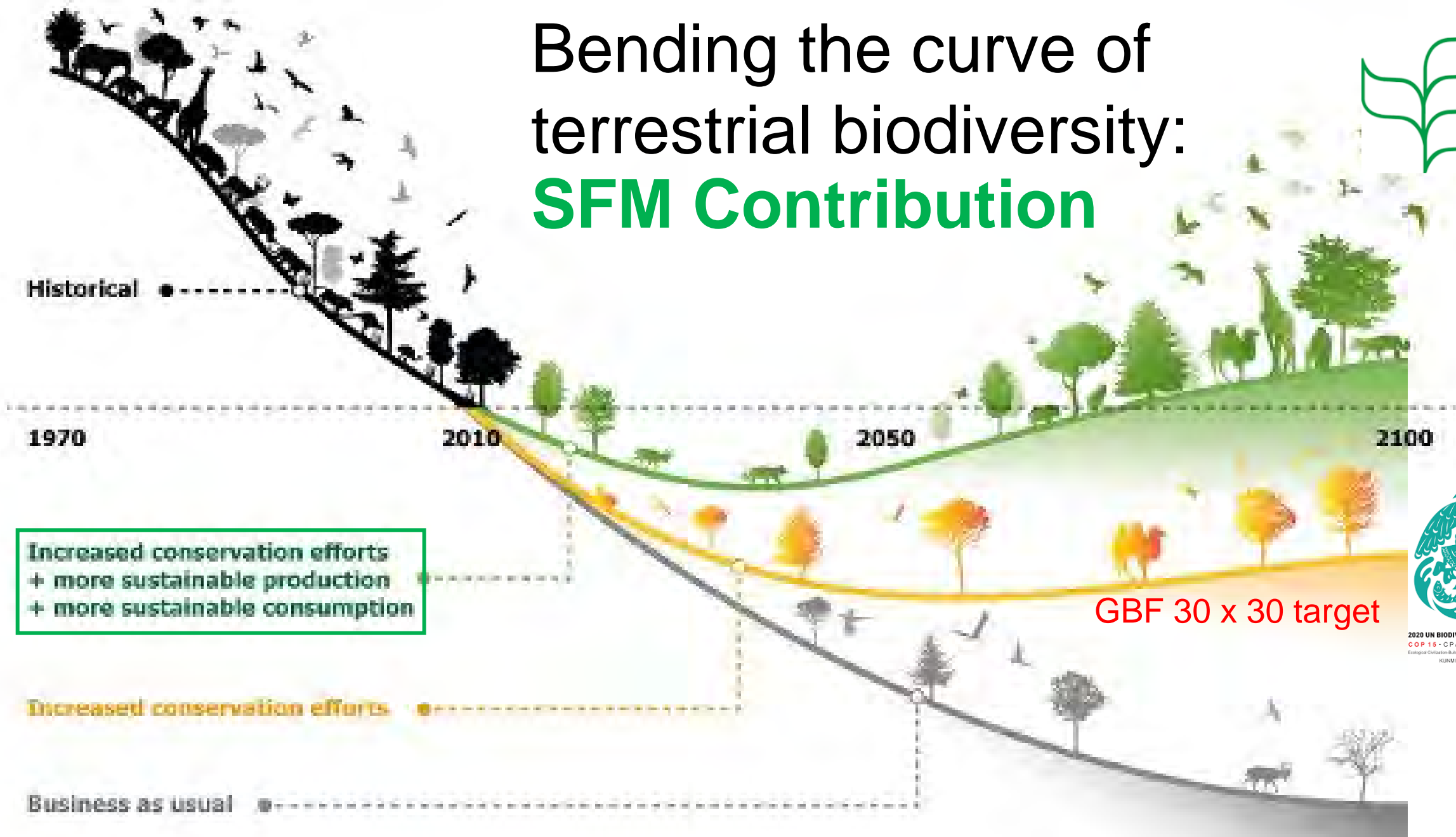
Rubber
B/C 1.14
NPV 240 USD



Maize
B/C 1.01
NPV 297 USD



Bending the curve of terrestrial biodiversity: **SFM Contribution**



2020 UN BIODIVERSITY CONFERENCE
COP 15 - CP/MOP.10-NP/MOP.4
Ecological Civilization-Building a Shared Future for All Life on Earth
KUNMING - MONTREAL

Leclerc et al. (Nature 2020)

This artwork illustrates the main findings of the article, but does not intend to accurately represent its results (<https://doi.org/10.1038/s41586-020-2705-y>)



The Wood Solution: Impact

2022: Current state/business as usual

- Degraded forests and landscapes, concrete cities and a lack of adequate industry to make the transition

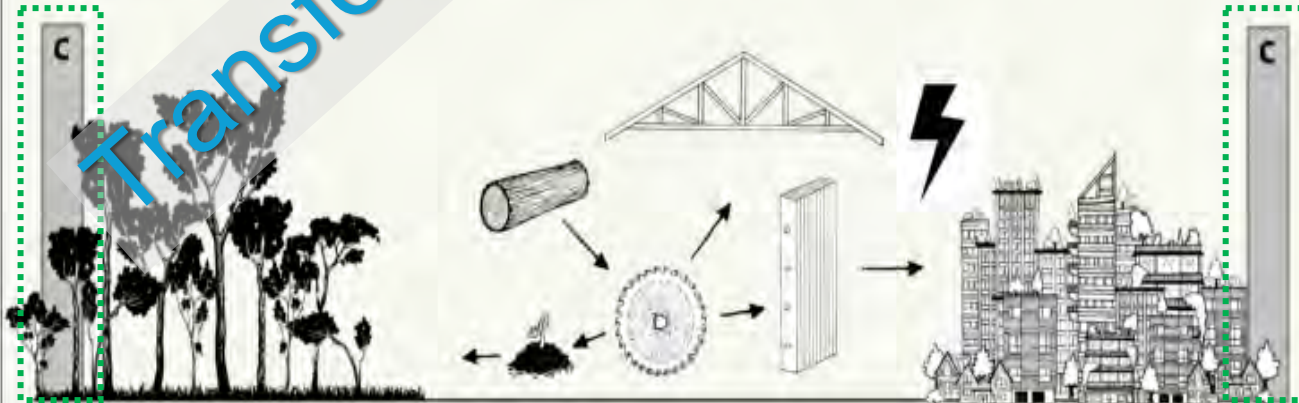
Wrong perception
of wood use



2100: Future state after 80 years of growth of The Wood Solution

- Restored forests and landscapes, wood cities and a thriving forest industry

Sustainable Wood Use



ITTO Executive Director Sheam Satkuru

Over time carbon stocks are built up in parallel: absorbed in the trees and soils of the

regenerating landscapes and stored in the structures of the expanding cities.



“...harvesting timber sustainably is *not deforestation*...”

29th session of the
Asia-Pacific Forestry
Com. 2022

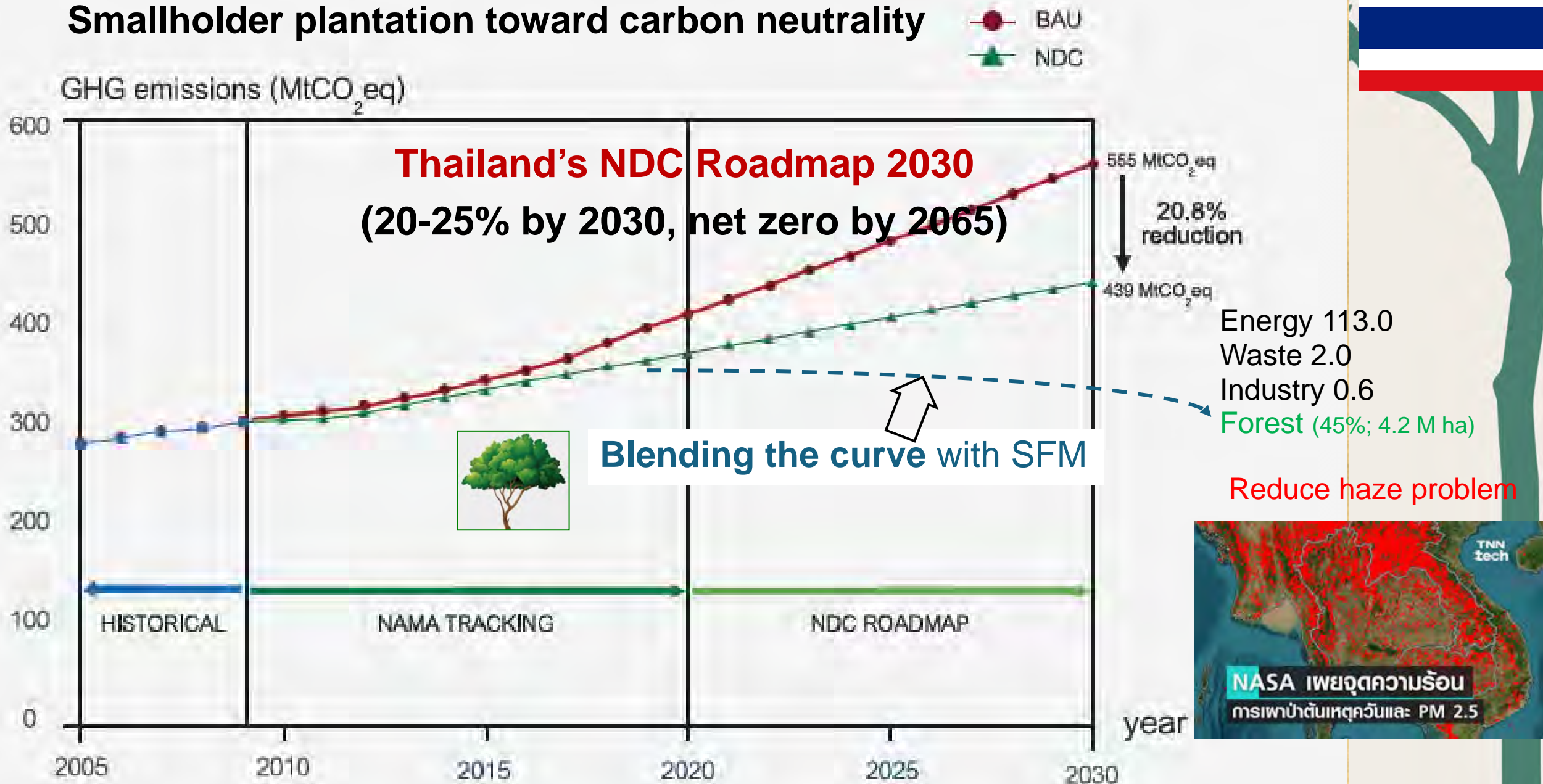


Ursula Von Der Leyen
President of the EU Com.
State of the Union Address,
September 16, 2020

“We know that the *construction sector can even be turned from a carbon source into a sink, if organic building materials like wood and smart technologies like AI are applies*”

Opportunities:

Smallholder plantation toward carbon neutrality



On-going activities



Launching Workshop
11 October 2023



Yongyut Trisurat, Kasetsart University,
Thailand



59th ITTO Council Meeting
13-17 November 2023 @Pattaya

Fields & Training

Exhibition: raising awareness and right perception (SFM)



Maintain clonal plots



Training smallholders on silviculture (1/4)



Smallholder plantation & poor silvicultural practices (22-year old)



Clonal test for smallholder plantations



Discuss with prov. forestry officials to define target areas & farmers



Way Forward

High-quality timber

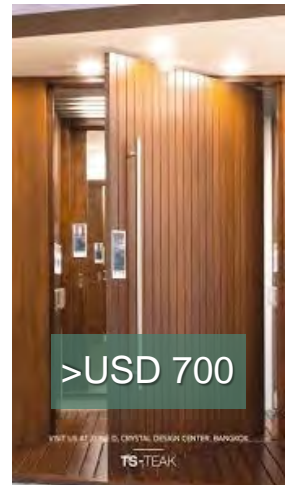
- Micro-finance (land- and tree collateral schemes)
- Optimize rotation & diversify markets
- Good quality materials & silvicultural practices

Carbon neutrality & net zero

- Perception of SWU/SFM
- High-value products from modern design
- Carbon credit/ESG framework
- Embedded forest plantation into NDC
- Target areas: **marginal and vulnerable lands (30-40%)**, smallholder and commercial plantations (inter-cropping)



USD 100



>USD 700

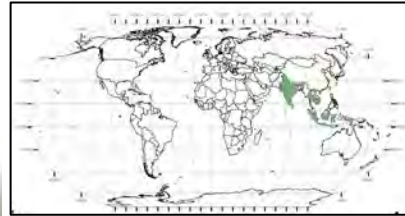
Conclusions



**Teak phase I
2019-2022**



**Knowledge sharing
(LK and modern
practices)**



**Teak Phase II
(2023-2026)
South-South
Cooperation**



**Livelihoods, social
and environmental
outcomes**

- Legal supply chains of smallholder plantation
- Production of high-quality timber
- Financial scheme/ carbon credit
- Knowledge sharing & networking



Mahogany



Teak



Rosewood



Milestone of ITTO-BMEL project and expected outcomes

Q & A Recommendations



Federal Ministry
of Food
and Agriculture



STOCKHOLM 2024
26th
WORLD
CONGRESS
IUFRO
FORESTS & SOCIETY TOWARDS 2050