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TEAKNET Partner Event
TEAK IN PRODUCTIVE LANDSCAPES

Planting Teak for the Rehabilitation and Restoration of Productive Landscapes

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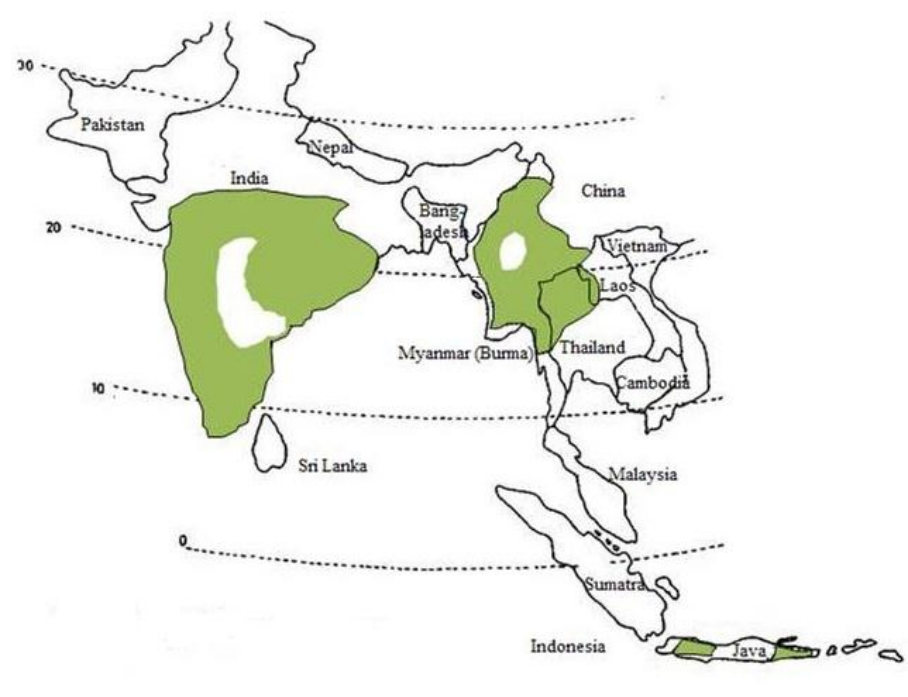
25th October, 2017

Natural Distribution



Gyi and Tint 1998

	2010 (Area) (,000 ha)	% of total
India	6,810	23.45
Lao PDR	1.5	0.01
Myanmar	13,479	46.42
Thailand	8,744	30.12
Total	29,035	100.00

(Kollert and Cherubini 2012)

Planting teak

- A globally emerging hardwood.
- About 2.0-2.5 million cubic meter teak roundwood is harvested annually from natural and planted forests
- the annual wood increment of planted teak forests is estimated to be much higher.

Area of planted teak forests by region

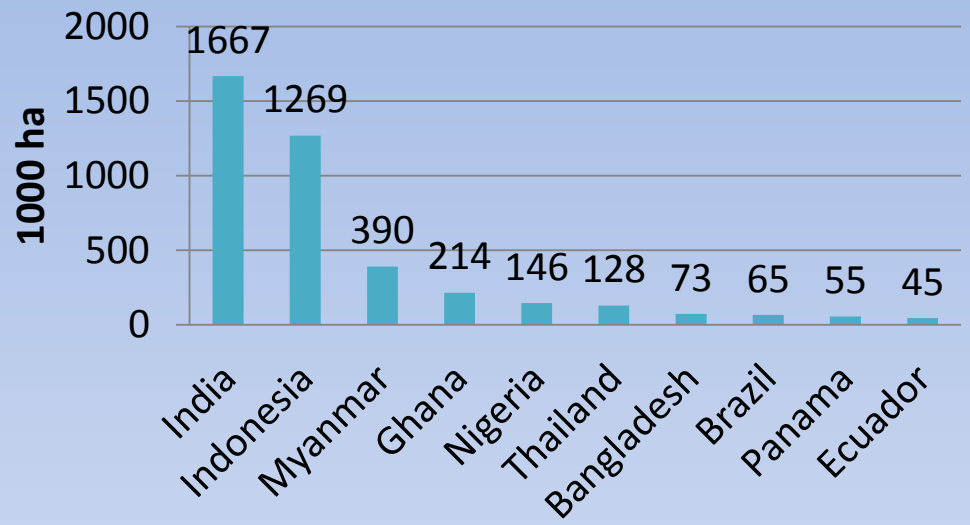
Region	1000 ha	%
Africa(10 of 19)	469.8	10.8
Asia (10 of 16)	3 598.04	82.8
Caribbean (3 of 5)	15.32	0.4
Central America (7of 7)	132.78	3
Oceania (3of 5)	8.13	0.2
South America (5of 8)	122.3	2.8
World (38 of 60)	**4 346.37**	**100**

(Kollert and Cherubini 2012)

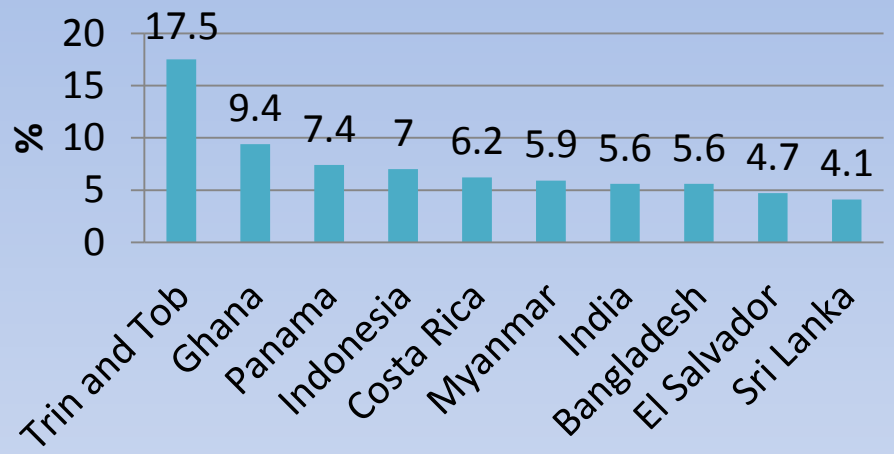
- 5,982,000 ha (ITTO (2009);
- 6,887,000 ha (Estimated areas of teak plantations, after Midgley et al., 2015)

Teak Planting Countries

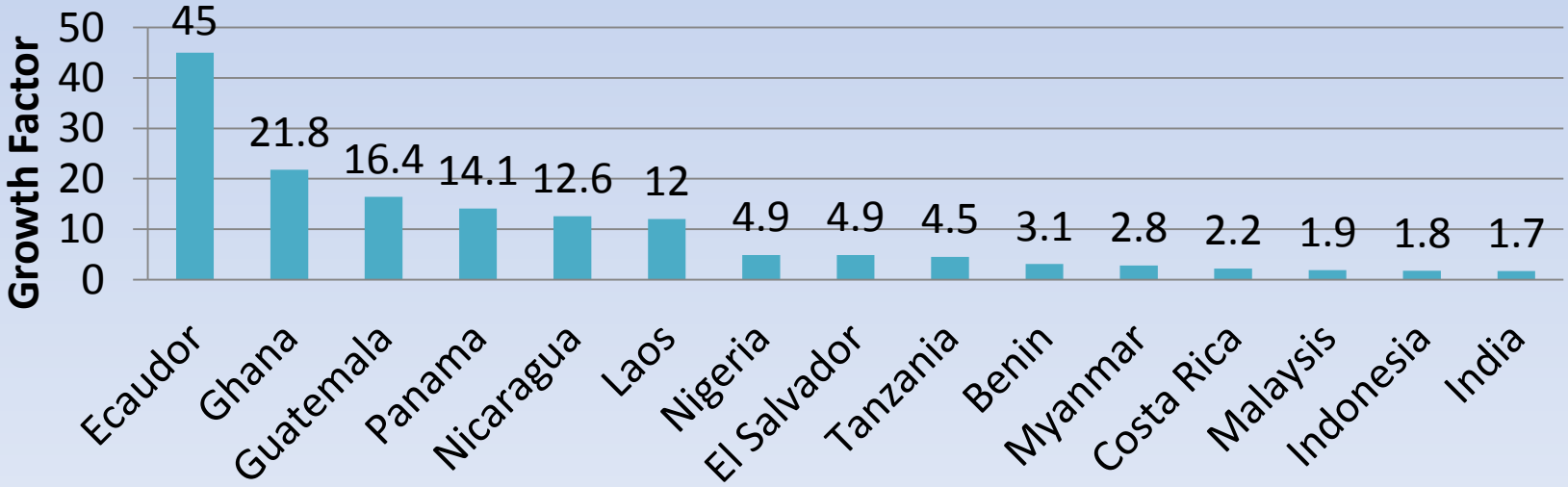
Ten countries with the largest area of planted teak forests



Ten countries with the highest teak coverage in the landscape (‰)

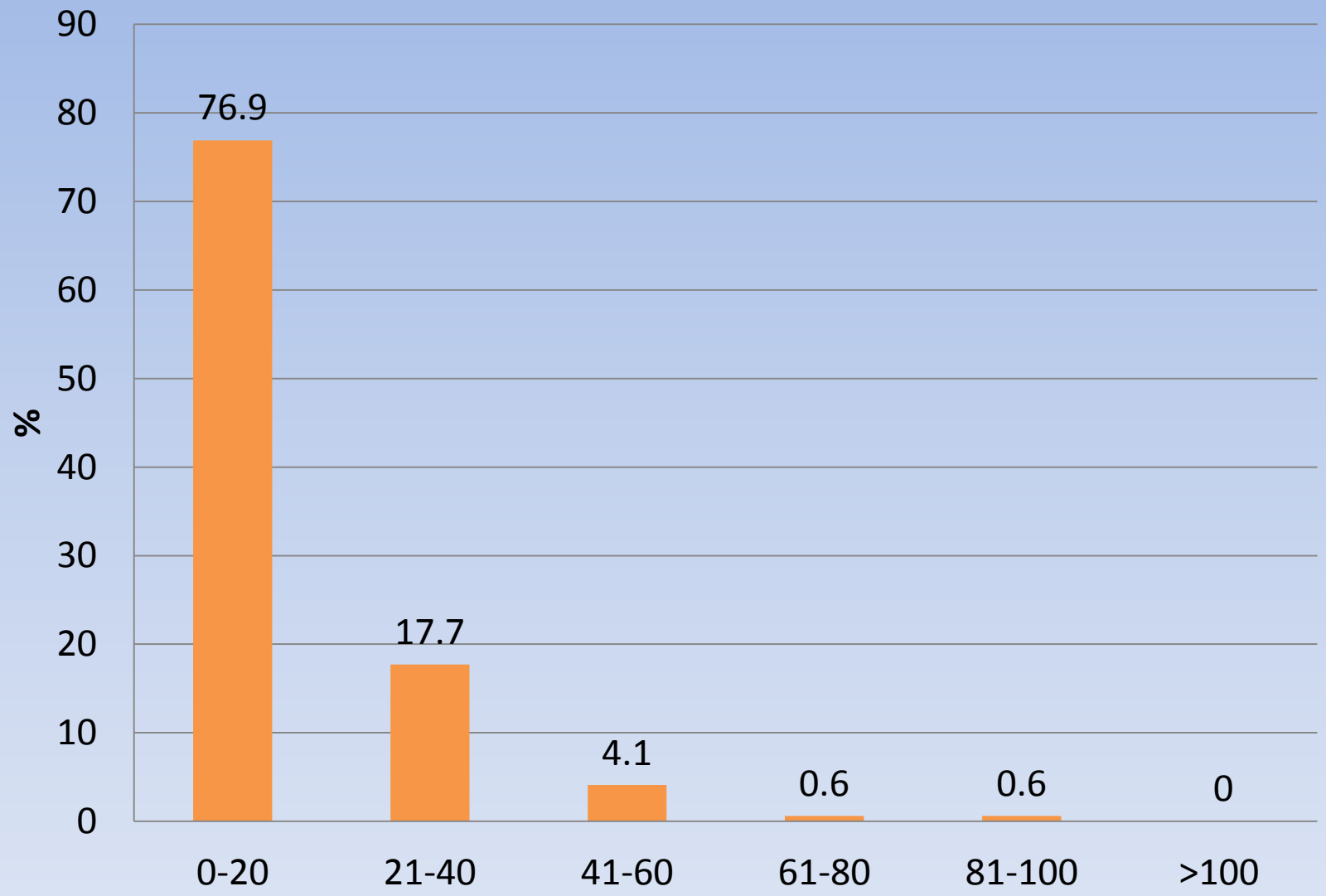


Area change in planted teak forests from 1995 to 2010



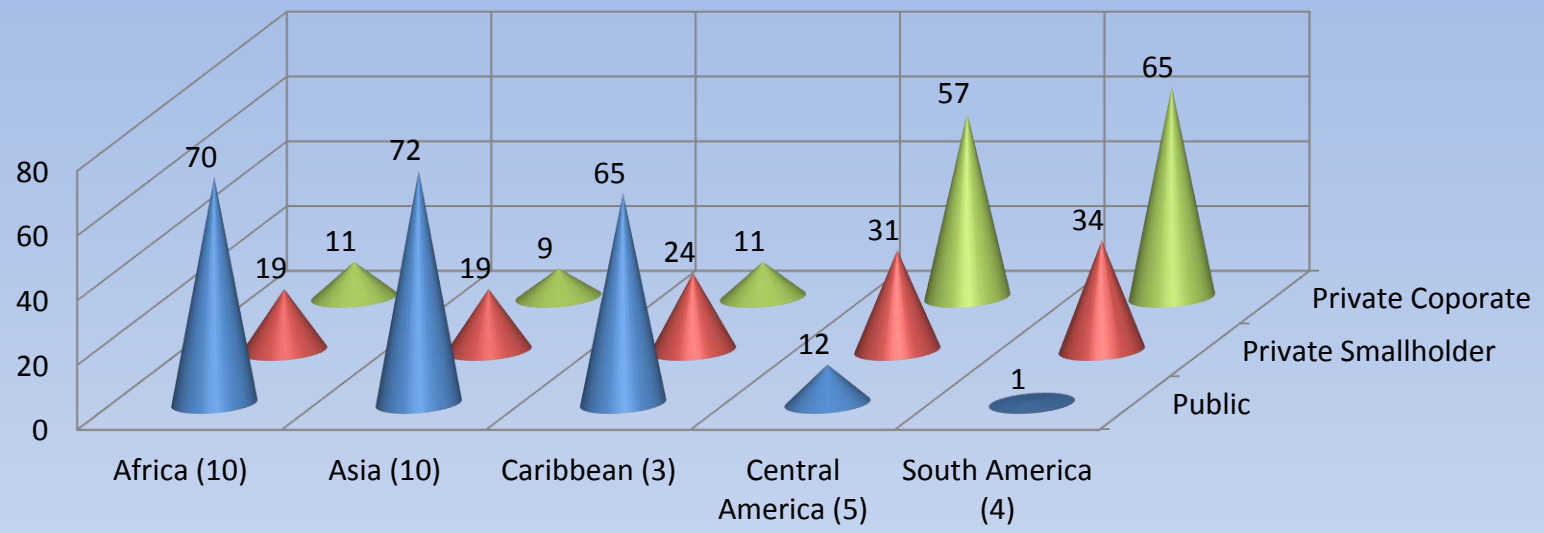
(Kollert and Cherubini 2012)

Age class distribution of planted teak forests



(Kollert and Cherubini 2012)

Ownership (%) of planted teak forests by region



(Kollert and Cherubini 2012)

Growth Performance

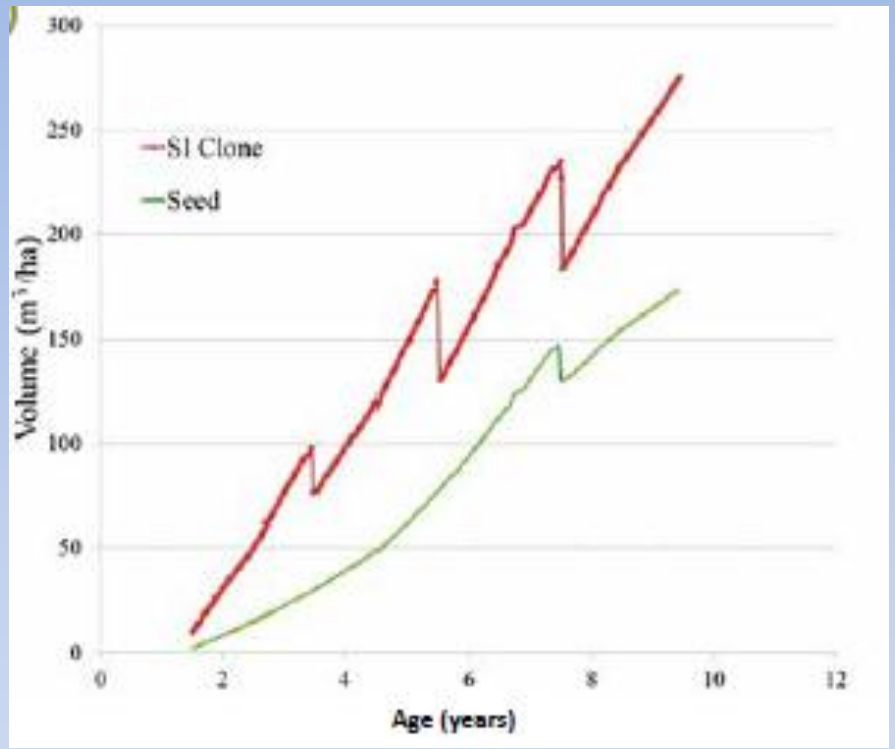
Plantations from Seeds

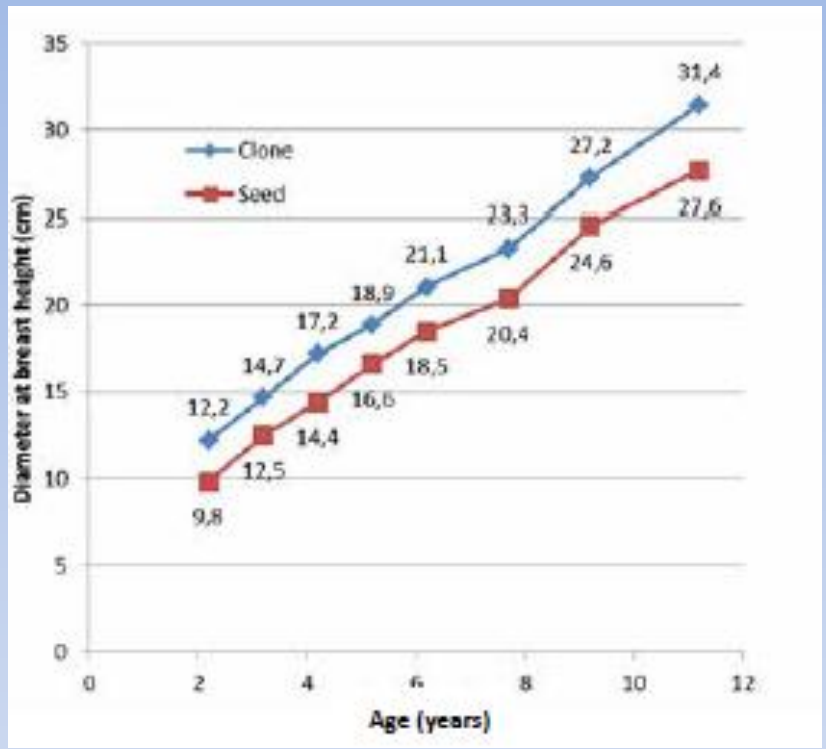
- Age of Plantation: 50-80 years
  - Average DBH 70 cm
  - Average Height 40 m
- Average height growth at younger stages on good sites: 3-6 m/yr
- Average diameter growth at 3-6 yrs on good sites: 3-5 cm

Clonal Plantation

- Higher productivity are expected.
- 32 m^3/ ha/yr in Mexico and Brazil.
- Average annual diameter increments:>3 cm/year.
- Exceptional height growth and large standing volumes

Seeds vs Clones





Sources: a) Smit & Oestreich (2014); b) Floresteca (2016).

Success of teak plantation

- Good site selection
- Genetically improved plant material
- Adequate soil preparation
- Timely execution of operations
- Planning, Monitoring and Evaluation

Trends for planted teak

- Planted teak markets will continue to expand in future.
- Wider spacing, early and intensive thinning and shorter rotation (15-20 years) in Latin America countries.
- Sustainability and environmental services
- Adoption of modern techniques and concepts

From Establishment and Management of Planted Teak Forests by *Mauricio Jerez-Rico and Sylvio de Andrad Coutinho*

Importance of broad genetic bases for planted teak

The biggest teak tree in Myanmar

Tree Name: Homemalynn 1
Location: Au Tu RF, Sagaing , Myanmar
GBH: 27.5 feet (8.38 m)
Height: 110 feet (33.5 m)
Found: 28th August 2017

Teak forests in Bago Yoma

Planting teak in productive landscapes in Myanmar

Dietrish Brandis Teak Plantation

Area: 31.5 ha

Year of establishment: 1857

Location: Kyun RF, Pyay, Myanmar

No of trees: 3503 trees

Maximum GBH: 15 ft 8 in (4.75 m),

Mini GBH: 3 ft 2 in (0.98 m),

Average GBH: 4 ft 8 in (1.4m)

Height: 86ft (26.2 m) to 124 ft (37.80 m)

Planting teak in the productive landscape in Myanmar

Photo: Nyi Nyi Kyaw, 2014

Myanmar Reforestation and Rehabilitation Program (2017-2026)

- Myanmar Reforestation and Rehabilitation Program (2017-2026)
- 350,000 acres (141,643 ha) of public plantation
- 162,900 acres (65,924 ha) of commercial tree plantation (teak is major spp for reforestation)
- 285,104 acres (115,380 ha) of private plantation (teak is major spp)
- SPAs, CSOs, Selection of Plus Trees
- Training and awareness raising activities
- Forest Landscape Restoration Approach

Challenges

- Policies, laws and regulations
- Access to quality planting materials
- Low investment in tree breeding and improvement
- Long term maintenance and monitoring
- Illegal logging
- Land use conflicts

Thanks for your kind attention!

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