

## 1. TECTONA GRANDIS

### Extent of adoption

A global overview of *Tectona grandis* (teak) by Pandey (2000) shows that FAO's most recent regional estimates (Table 1) suggest that the increase in the global net area of teak plantations has been negligible since 1990 (FAO, 1995), despite a reported rate of new planting of more than 100 000 ha per year. The rate of new plantation establishment in many tropical countries does, however, appear to have slowed notably since 1990. Most planting reported in 1995 was in India, Myanmar, Thailand and Indonesia in tropical Asia, and in Costa Rica and Panama in tropical America.

Table 1: Estimated net plantation area of teak by sub region, 1995 (1000 ha)

Subregion	Estimated net area of teak plantation	Estimated annual planting
West Sahelian Africa	4.02	0
East Sahelian Africa	14.85	
Moist West Africa	87.88	4
Southern Africa	2.8	0
Tropical Africa	109.55	4
South Asia	1,099.60	55
Continental Southeast Asia	302.28	26
Insular Southeast Asia	706.01	12
Tropical Asia	2,107.83	93
Tropical Oceania	3.03	0
Central America	22.29	4
Caribbean	8.06	
Tropical South America	2.72	0
Tropical America	33.07	4

Source: Pandey 2000

### Economics of production

Agbeja (2004) carried out an evaluation of investment in teak plantation establishment on a 15 year rotation for smallholders in Nigeria. Using 1600 seedlings per hectare the findings show that the net return on capital for the owner is USD 10,290 (Table 2). The total benefit from the establishment after 15 year is USD 61,538.46, the gross margins after 15 years is USD 51,248.46 and the net present value is USD 7,501.50.

Table 2: Costs (USD) of Operation for the Establishment of a Hectare- Teak Plantation  
(Estimate for Physical Inputs: Direct Labour Establishment of a Hectare of Teak plantation)

	Operation	Man days	Cost/ha
1	Land preparation	22	369.23
2	Planting preparation	11	976.92
3	Planting	10	123.07
4	Maintenance		0

	Weeding_ 1st yr	40	861.53
	Weeding_ 2nd yr	30	738.46
	Weeding_ 3rd yr	30	738.46
5	Fire tracing and clearing	6	184.61
6	Other expenditure		0
	Rent/ha/yr	15 years	1153.84
	Vehicle & Maintenance		4538.46
	Monitoring and Supervision		115.38
7	Incidentals		490
<hr/>			
	TOTAL		10290
<hr/>			

Source: Agbeja 2004

1 USD= 130 Naira

### Marketing

Indonesian exports of teak furniture approached USD800 million in 2001, according to CIFOR.

### Further reading

Agbeja, B.O. (2004) Valuation of Investment on Teak Plantation Establishment on a 15 Year Rotation for Intending Small Holders in Nigeria. A Paper Presented at International Workshop on Small-Holder Timber Production Held at World Agroforestry Centre (ICRAF), United Nations Avenue, Gigiri, Nairobi, KENYA, 29<sup>th</sup> November to 1<sup>st</sup> December 2004

<http://www.cifor.cgiar.org/Knowledge/Publications/NewsOnline/NewsOnline33/hardwood.htm>

<http://www.kauaitimbers.com/projections.html>

Pandey, D. & Brown, C. (2000) Teak: a global overview. Unasylva Vol 51.