

Project ALA - 97/68

**Upland Development Programme in Southern
Mindanao
(UDP)**

Forest Product Market Report

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Introduction

From being an exporter of timber the Philippines is now a net importer. According to the FAO yearbook statistics the value of forest product imports into the Philippines increased from 227 million USD in 1990 to 500 million in 1998, having peaked at 720 million in 1996. Presumably the fall off since 1996 is due to the reduced level of economic activity as a result of the Asian economic crisis. During the same period the value of exports fell from 116 million to 65 million dollars.

- Construction
- Paper
- Poles
- Furniture manufacture

The main timber species being produced commercially in the Philippines are:

- Bagras (*Eucalyptus deglupta*): used for veneering, lumber, poles and piles
- Bagras hybrid (*E. deglupta* X *E. pellita*): - developed by PICOP's Forest Research programme and has faster growth and denser wood qualities
- Mangium (*Acacia mangium*) - primarily for pulp and paper
- Gmelina - used mainly in the furniture industry
- *Pinus falcata*

Timber grows well in the Philippines and the rate of growth is considerably greater than in other major producing countries such as New Zealand and Chile. Production can be achieved in 10 to 15 years that can take 35 years in New Zealand and over 60 years in Finland.

Total world production of forest products is measured in hundreds of millions of cubic metres. World trade is many billion dollars. New Zealand exports forest products in excess of 1 billion dollars annually. Chile has planted over 1 million ha.

The combined market potential for Japan, Korea, Taiwan and China is estimated at 120 million cubic metres annually. The domestic market is estimated at 3 million cubic metres per year. At a yield of 100m³ per ha this

would give an annual requirement of 30,000ha and working on a 10 year cycle a total of 300,000 ha.

The rainfall pattern in Mindanao is regarded as ideal for the production of species such as *Gmelina* and *A. magnium*, which require rainfall all year round.

Timber is a relatively long gestating crop. The main expenditure is on plantation establishment where costs are estimated to average P20,000 per ha (PTFI actual costs), and at harvest time. Marketing costs will vary depending on the topography and road access and the distance from the market. Again PFI estimate their harvesting and transport costs at Php 105,000 per ha. Financial charges have not been included.

At a yield of 150 cbm and an average price of Php 1,500 per cbm this gives a gross profit before financial charges of Php 100,000 per ha on a 10 year cycle.

PICOP has tested a total of 67 exotic and endemic species for tree plantations. Included in the trials were *Gubas*, *Banlag*, *Ilang-ilang*, *Bangkal*, *Mahogany*, 8 *Eucalyptus* species, *Falcataria*, *Gmelina*, *Pinus*, *Cordia*, *Ipil-ipil* and 4 species of *Acacia*.

Various planting layouts were also tested.

Some of the most important lessons learned were that:

- a number of species performed well initially but did not live up to expectations
- some *spp* were very site specific - *gmelina* being one of them
- pests and diseases were a problem early on
- correct species-site matching is vitally important - vigorously growing trees are very resistant to pests and diseases and weed competition

Choice of species depends on the site and the intended use.

For individual farmers who are looking at combining agro forestry with other farming enterprises and who are considering practicing perimeter planting or strip planting considerations such as canopy size, water requirement and gestation period would also be important considerations. Where areas are to

be planted totally to trees the possibility of early harvesting of thinnings in order to generate some earlier cash flows should also be a consideration.

Factors modifying demand.

- Use of substitutes
- Building regulations - plywood etc. cannot be used in high rise buildings
- The paperless office
- Recycling

Indications are that the supply of forest products for the domestic market will continue in deficit for some time. There will continue to be a large export market in S.E. Asia.

While timber is not a perishable crop in the sense that many other crops are it is bulky and this poses problems for getting it to market. Large logs can not be easily transported even over very short distances if there is no road. The possibility of higher density planting with much earlier harvesting should be looked at. This would be for the production of poles which could be carried out if necessary. The demand for these products is different from the demand for large poles (telegraph and electricity pylons) saw logs, veneer and plywood. This market would be much more local and would need to be investigated at a more local level. Firewood and charcoal are other possible uses. In both these cases the timber could be sawn into much shorter lengths thus facilitating transport and the charcoal manufacture could conceivably be done on site. Planting densities would be much higher than for large log production.

One does see short sawn logs being traded commercially but these are usually the proceeds of theft or some other illegal activity and their market value is considerably reduced.