FOREST INVENTORY IN PENINSULAR MALAYSIA

First National Forest Inventory (NFI – 1) : 1971 – 1972
FDPM, FAO & UNDP

FDPM

Third National Forest Inventory (NFI – 3) : 1991 -1993
FDPM & FAO

Fourth National Forest Inventory (NFI – 4) : 2002-2004
FDPM & GTZ

FOREST RESOURCES IN PENINSULAR MALAYSIA

Permanent Reserve Forest
4.7mil. ha.

Protection 1.52 mil. ha.
Production 3.18 mil. ha.

NFI – 4 INVENTORY DESIGN

The NFI – 4 inventory design is described as a stratified satellite based on randomly distributed permanent sample units.

The sampling design consists of permanent sample units (satellites) of square shape with one sample plot in each corner.

Each sample plot consists of a sample circle for small size trees and a point sample Layout of the sampling unit.

Each sample unit consists of 4 sample plots and 3 sample strips.

Each sample plot is a combination of a fixed sample circle of 4 m in radius and a point reference. The distance between the sample plot is 100 m. The total sample area is 0.12 hectare.

Within the sample circle trees is inventorised according to dbh classes
Artificially Propagated Agarwood in Malaysia

Statistics on farm crops in Malaysia (A. malaccensis, A. sinensis, A. crassna)

<table>
<thead>
<tr>
<th>No.</th>
<th>State</th>
<th>Ha</th>
<th>Date Established</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Pahang</td>
<td>513.35</td>
<td>1995-2003</td>
</tr>
<tr>
<td>2.</td>
<td>Perlis</td>
<td>403.5</td>
<td>2005&amp;2008</td>
</tr>
<tr>
<td>3.</td>
<td>Perak</td>
<td>812</td>
<td>2006&amp;2010</td>
</tr>
<tr>
<td>6.</td>
<td>Melaka</td>
<td>1.6</td>
<td>2007</td>
</tr>
<tr>
<td>7.</td>
<td>Negeri Sembilan</td>
<td>16</td>
<td>2008</td>
</tr>
<tr>
<td>8.</td>
<td>Sabah</td>
<td>317.65</td>
<td>2004&amp;2005</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>2177.5</td>
<td></td>
</tr>
</tbody>
</table>
The overall results showed that there are 3.06 million stems of size 15 cm dbh and above with estimated volume of 1.83 million m³.

The results also showed that the percentage of trees greater than 15 cm dbh but less than 45 cm dbh is estimated to be about 95% of the total number of trees and about 66.8% of the total volume.

In terms of stems, Kelantan shows the highest while in terms of volume, Pahang has the highest of volume.

From the inventory the annual coupe is determined.
**PREVIOUS PRACTICE OF GAHARU COLLECTION**

**HARVESTING**

1. **ORANG ASLI & ORANG KAMPONG**
2. FORESTRY DEPARTMENT CHECKING STATION (royalty assessment & removal passes)
3. MALAYSIAN TIMBER INDUSTRIAL BOARD (MTIB)
4. EXPORT

**HARVESTING OF AGARWOOD**

- The wood-chips, powder or oil of *Aquilaria malaccensis* are classified as a minor forest produce in accordance to National Forestry Act 1984.
- The taking of such products would require a minor licence (Form 3) as stipulated in section 28 of the said Act.

**Licence to trade *Aquilaria spp.***

- All gaharu traders are only allowed to purchase *Aquilaria* products from the contractors/licencsee registered with the State Forestry Department.
- A trader is required to maintain a log book showing the amount of gaharu purchased from the contractor and sold to the manufacturer.
- A trader is required to submit a shuttle return to the State Forestry Department on a monthly basis in respect of the amount of gaharu purchased and sold.
- To obtain a CITES permit from MTIB for export purpose.

**Licence to process *Aquilaria spp.***

- A manufacturer has to apply for a valid licence from the State Forestry Department.
- A manufacturer is required to maintain a log book showing amount of gaharu purchased and processed.
- A trader is required to submit a shuttle return to the State Forestry Department on the monthly basis in respect of the amount of gaharu purchased and the sale of gaharu oil; and
- To obtain a CITES permit from MTIB for export purpose.