Workshop on statistics of forest products in Viet Nam

EFFICIENCY OF TIMBER USE AND CONVERSION COEFFICIENT

HUỲNH VĂN HẠNH
Vice Chairman of HAWA
Introduction to HAWA

• The establishment of Handicraft and Wood Industry Association of Ho Chi Minh City (HAWA):
  - 1990: Handicraft Association under Trade Association of HCMC
  - 1997 to present: Handicraft and Wood Industry Association of HCMC

• A voluntary organization of enterprises

• 430 members

By geography:
  – HCMC: 54%
  – Other provinces, cities: 46%

By operating field (%)

Source: HAWA
Viewpoints of enterprises on natural resources

• Attitude to environment:
  - Natural resources are limited
  - Forests are lungs of mankind, storehouse of water, shields to prevent sand, storms, walls to prevent floods, shelters of wildlife…
  - Love and respect nature, warn people about consequences of excessive use of natural resources.
  - Forests also have life and soul, and are the heart of the country
  - Trees are living beings that God has given to humans, thus they should be respected
Actions by HAWA and enterprises

**HAWA:**
- Help enterprises understand requirements of relevant domestic and foreign legal regulations, such as the Forestry Law, Lacey act, FLEGT, …
- Provide information about market opportunities and trends
- Encourage afforestation and use of plantation timber
- Equip with advanced and new technologies in order to increase the proportion of timber utilization

**Enterprises:**
- Strictly comply with domestic and foreign legal regulations
- Viet Nam currently has 732 enterprises with CoC/FSC certificates, in which 49 enterprises have FSC/FM certificate with area of 235,000 ha
- Cooperate with forest farmer to plant forests, certify sustainable forest management and increase age of plants
Creating legal and sustainable timber source

• VN has over 2.8 mil. ha of plantation forests with growing stock of 117.3 mil m³, nearly 1.5 mil. households are participating in forest plantation

• Roles of plantation timber:
  – Creating a legal timber source for production
  – Motivation for rural development, a timber source in the supply chain
  – Helping increase forest cover, reduce emission, prevent erosion and natural disasters, reduce the stealing of natural timber
  – Changing the habit from using natural timber to using plantation timber

• Linkage between enterprises and households:
  – To maintain the harvesting age until the 10th year
  – To provide financial support and product consumption
  – To contribute to completion of supply chain of raw materials
  – To create a stable position for the timber industry
Reasonable use of timber

- Raw timber material accounts for 35% of cost structure of products. Enterprises must use timber reasonably:
  - Using timber species for right purposes
  - Saving resources for next generations
  - Reducing costs
  - Increasing economic efficiency

- Intermediary processing at the planting sites helps:
  - Create more jobs
  - Reduce transportation cost by 75%
  - Make use of the most of raw materials (*big timber: sawn, dried, 4-side planed for furniture production; small timber: branches, roots are planed for making woodchip, MDF, paper pulp, pellets*).
  - Improve economic efficiency for forest farmers
The using proportion of some plantation timber in Viet Nam

• The using proportion of Melaleuca timber, from round timber to sawn timber:
  – Depend on diameter and sawn method
  – \( \phi \) from 15 – 20 cm, efficiency 50%, corresponding coefficient 2:1
  – \( \phi \) from 20 – 30 cm, efficiency 53%, corresponding coefficient 1.8:1
  – \( \phi \) from 30 – 40 cm, efficiency 60%, corresponding coefficient 1.6:1

• The using proportion of rubber wood, from round timber to sawn timber:
  – \( \phi \) from 10 – 20 cm, efficiency 50%, corresponding coefficient 2:1
  – \( \phi \) from 20 – 30 cm, efficiency 55%, corresponding coefficient 1.8:1
  – \( \phi \) from 30 – 40 cm, efficiency 60%, corresponding coefficient 1.7:1
  – \( \phi \) from 50 – 60 cm, efficiency 65%, corresponding coefficient 1.5:1
The using proportion of some imported timber

• The using proportion of Ash timber, Oak timber, from round timber to sawn timber:
  – $\phi$ from 30 – 39 cm, efficiency 50%, corresponding coefficient 2:1
  – $\phi$ from 40 – 49 cm, efficiency 56%, corresponding coefficient 1.8:1
  – $\phi$ from 50 – 60 cm, efficiency 60%, corresponding coefficient 1.65:1
  – $\phi$ from 60 cm, efficiency 65%, corresponding coefficient 1.5:1
  – From round timber to timber products: 45%= 2.23

• The using proportion of Ash timber, Oak timber from round timber with $\phi \geq 50$ cm to timber products, efficiency 45%, corresponding coefficient 2.3:1

• In general, the bigger diameter of timber, the higher efficiency and vice versa
### Ratio of conversion from some production to round timber

<table>
<thead>
<tr>
<th>Product</th>
<th>HS code</th>
<th>Ratio of conversion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Round timber (m3)</td>
<td>4403</td>
<td>1</td>
</tr>
<tr>
<td>Wood pellets (ton)</td>
<td>4401</td>
<td>1.8</td>
</tr>
<tr>
<td>Hoopwood (m3)</td>
<td>4404</td>
<td>2.6</td>
</tr>
<tr>
<td>Wood wool, wood flour (ton)</td>
<td>4405</td>
<td>1.3</td>
</tr>
<tr>
<td>Sleeper (m3)</td>
<td>4406</td>
<td>2</td>
</tr>
<tr>
<td>Sawn timber (m3)</td>
<td>4407</td>
<td>1.43</td>
</tr>
<tr>
<td>Sliced veneer, peeled veneer (m3)</td>
<td>4408</td>
<td>3.3</td>
</tr>
</tbody>
</table>
## Ratio of conversion from some production to round timber (cont.)

<table>
<thead>
<tr>
<th>Product</th>
<th>HS code</th>
<th>Ratio of conversion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flooring panel (m3)</td>
<td>4409</td>
<td>2.5</td>
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<tr>
<td>Particle board (m3)</td>
<td>4410</td>
<td>2.3</td>
</tr>
<tr>
<td>Fibreboard (m3)</td>
<td>4411</td>
<td>2.6</td>
</tr>
<tr>
<td>Plywood (m3)</td>
<td>4412</td>
<td>2.5</td>
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<tr>
<td>Jointed board (m3)</td>
<td>4413</td>
<td>2.6</td>
</tr>
<tr>
<td>Joinery and carpentry (m3)</td>
<td>4418</td>
<td>1.3</td>
</tr>
<tr>
<td>Chair (m3)</td>
<td>9401</td>
<td>4</td>
</tr>
<tr>
<td>Furniture (m3)</td>
<td>9403</td>
<td>3</td>
</tr>
</tbody>
</table>
Conclusions

• Plantation forests not only provide timber to society but also contribute to changing consumption habits to responsible consumption.

• In order to maintain and sustainably develop plantation forests, actions of enterprises are as follows:
  – Developing big-diameter timber plantation forests
  – Improving quality of production, putting heart and soul into products
  – Effectively using plantation timber and legally imported timber
  – Renovating technology, enhancing management capacity to save raw timber materials
Thanks for your attention