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STATISTICS SYSTEM FOR AGRICULTURAL MECHANIZATION IN VIETNAM

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An Overview

I. Overview of the statistics system for agricultural mechanization in Vietnam

II. Gaps and Needs

III. Solutions and Suggestions
I. Overview of the statistics system for agricultural mechanization in Vietnam
I. Overview of the statistics system for agricultural mechanization in Vietnam (1)

1.1. State statistics organization system

- Centralized statistics organization system
- Statistics organizations of Ministries, Ministerial-level and Government agencies, the Supreme People’s Court and the Supreme People’s Prosecutorate
- Statistics in Towns, Communes and Wards
- Statistics in enterprises and administrative units
1.2. Statistical system of agricultural mechanization in Vietnam and responsible agency

- General Statistics Office (GSO)
- Provincial Bureau of Statistics
- Provincial Bureau of Statistics
- Provincial Bureau of Statistics
I. Overview of the statistics system for agricultural mechanization in Vietnam (3)

- **Responsible Agency on Statistics of Agricultural Mechanization:**

  The Ministry of Agriculture and Rural Development (MARD)
I. Overview of the statistics system for agricultural mechanization in Vietnam (4)

- Some of Statistical Indicators related to the field of agricultural mechanization

(See Table-1: Part of System of National Statistical Indicators (SNSI))
<table>
<thead>
<tr>
<th>No</th>
<th>Code</th>
<th>Categories, indicators</th>
<th>Major groups</th>
<th>Published periods</th>
<th>Responsible Agencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>09</td>
<td></td>
<td>09. Agriculture, Forestry, Aquaculture</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>136</td>
<td>0903</td>
<td>Seedling and planting area p.a</td>
<td>Main crops, provinces/cities</td>
<td>Season, year</td>
<td>GSO</td>
</tr>
<tr>
<td>137</td>
<td>0904</td>
<td>Seedling and planting area with GAP p.a</td>
<td>Main crops, provinces/cities</td>
<td>Season, year</td>
<td>MARD</td>
</tr>
<tr>
<td>138</td>
<td>0905</td>
<td>Area for permanent plants</td>
<td>Main crops, newly grown/giving products, provinces/cities</td>
<td>Year</td>
<td>GSO</td>
</tr>
<tr>
<td>139</td>
<td>0906</td>
<td>Proportion of mechanized area for planting agricultural crops</td>
<td>Main crops, work stages, provinces/cities</td>
<td>Season, year</td>
<td>MARD</td>
</tr>
<tr>
<td>140</td>
<td>0907</td>
<td>Proportion of irrigated area for planting p.a</td>
<td>Types of plant, form of irrigation, drainage, provinces/cities</td>
<td>Year</td>
<td>MARD</td>
</tr>
<tr>
<td>153</td>
<td>0920</td>
<td>Quantity and Capacity of main machinery and equipment for agricultural and forestry production</td>
<td>Types of machinery, equipment, economic sectors, provinces/cities</td>
<td>5 years</td>
<td>GSO</td>
</tr>
<tr>
<td>156</td>
<td>0923</td>
<td>Area for aquaculture</td>
<td>Types of aqua-products, method of growing, water sources, provinces/cities</td>
<td>Year</td>
<td>GSO</td>
</tr>
<tr>
<td>158</td>
<td>0925</td>
<td>Quantity and Capacity of Ships with engines for fishing</td>
<td>Groups of capacity, exploitation scale, provinces/cities</td>
<td>Year</td>
<td>GSO</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>10. Industry</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>162</td>
<td>1003</td>
<td>Productivity of some key industrial products</td>
<td>Types of products</td>
<td>Month, quarter</td>
<td>GSO</td>
</tr>
<tr>
<td>163</td>
<td>1004</td>
<td>Consuming index of processing and manufacturing products</td>
<td>Economic sectors, major products</td>
<td>Month, quarter</td>
<td>GSO</td>
</tr>
<tr>
<td>11</td>
<td></td>
<td>11. Commerce</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>175</td>
<td>1109</td>
<td>Export and import to/from other countries in different continents.</td>
<td>Main commodities</td>
<td>Month, quarter</td>
<td>-Ministry of Finance -GSO</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>List of exported and imported commodities</td>
<td>Month, quarter</td>
<td></td>
</tr>
</tbody>
</table>


I. Overview of the statistics system for agricultural mechanization in Vietnam (5)

- Statistical indicators about equipped machinery used in agri-production conducted by census in the whole country with a frequency every 5 years.

- For example, the 2001, 2006, 2011 are census in agriculture, fisheries and rural areas (see Appendix 1-Results of the 2006 Rural, Agricultural and Fishery Census, quoted enclosed)
1.3. Indicators for mechanization in census of rural, agriculture and aquaculture published with focus only on some major machines as following:

- Number of tractors, engines, water pumps and some farming machinery (rice threshers, motorized insecticide sprayers, dryers).

- Number of processing machines (rice milling machines, animal food processing, aquaculture food processing machines).
1. Overview of the statistics system for agricultural mechanization in Vietnam (7)

1.4. Collecting data on agricultural mechanization (1):

- The Census on rural agriculture and fisheries are carried out every 5 years, data according to the standard form designed from central to commune levels ensured consistency, accuracy and reliability.
- However, the collected data did not mention to the level of mechanization development in production’s stages for separated crops.
- These data are aggregated annually from provinces’ reports by MARD and do not ensure highest reliability and accuracy.
1.4. Collecting data on agricultural mechanization (2):

- Typically, to formulate a scheme or plan of mechanization for a specific commodity and crop or production, MARD conducts investigations on the appropriate scope and the object is selected in accordance with planning goals or objectives of the scheme.

- For example, to propose solutions for the development of agricultural mechanization in the phase of 2015-2020, the Ministry has implemented the project "A survey of agricultural mechanization’s practice and solutions for development in the phase 2015-2020."
II. Gaps and Needs
II. Gaps and Needs (1)

2.1. The challenges and constraints for the statistics collection and management (1)

- Lack of human resource in management of mechanical engineering in general and agricultural mechanization in particular

- Lack of processed data, statistics data are mainly raw data. For example, data do not specify the rates of mechanization in:
  - crop caring
  - cutting, harvesting and seed drying, preservation
2.1. The challenges and constraints for the statistics collection and management (2)

- Lack of data for mechanization of permanent and annual industrial crops

- Annual and 5-year statistics data on forestry sector does not specify contents, investment, equipment and application of agricultural machinery, even thought the sector possesses vital roles.
II. Gaps and Needs (3)

2.2 The minimum data and statistics requirements of agricultural mechanization in Vietnam

- Equipped with engine (quantity, capacity).
- Proportion of cultivation stages served by machinery for separated crops
- Production costs for each stage.
III. Solutions and Suggestions
III. Solutions and Suggestions (I)

3.1. Improvement of the current statistics collection and management

- To improve the content, the level of information collection through the census period (5 years) then annually update data (from the commune level upwards).

- To strengthen management capacity at locals, every district has 01 professional staff in agricultural engineering.

- Annually allocate funds to hire local consultants to perform investigations and gather information.
3.2. Needs and feasibility of establishing a regional database of agricultural mechanization in Asia - Pacific

- Needs and feasibility are available for investment, support by organizations

- The region should have statistics data system on agricultural mechanization, especially the ASEAN countries, China, Korea, Japan, which have similar conditions on crop and livestock
3.3. Contribution to the proposed regional database of agricultural mechanization

- To build up a database of agricultural mechanization in the Asia-Pacific region, there should be a hosting organization to preside over negotiations among the countries so that the countries will be aware of the importance of agricultural mechanization.

- Research to unify criteria and statistical calculations on mechanical engineering and those targets to get comparable data between countries in the region.
Example: The Statistical Yearbook and book on Results of the 2006 Rural, Agricultural and Fishery Census
Appendix 1- Results of the 2006 Rural, Agricultural and Fishery Census, quoted enclosed
Thank you for your kind listening