

**The 10th Session of the Technical Committee of CSAM
Regional Workshop on Establishing a Regional Database of
Agricultural Mechanization in Asia and the Pacific**

17-19 November 2014, Siem Reap, Cambodia

**STATISTICS SYSTEM FOR AGRICULTURAL
MECHANIZATION IN VIETNAM**

Presented by Dr. Nguyen Quoc Viet,

Director of Dept. of Science, Training and International Cooperation

Tel: +84 4 8687884. Fax: +84 4 8689131.

Email: quoc5viet5.viaep@mard.gov.vn; quoc5viet5@gmail.com



**Vietnam Institute of Agricultural Engineering and
Post-harvest Technology (VIAEP)**

Add.: No. 60 Trung Kinh Str., Trung Hoa, Cau Giay Dist., Hanoi, Vietnam.

Email: viaep@mard.gov.vn

An Overview

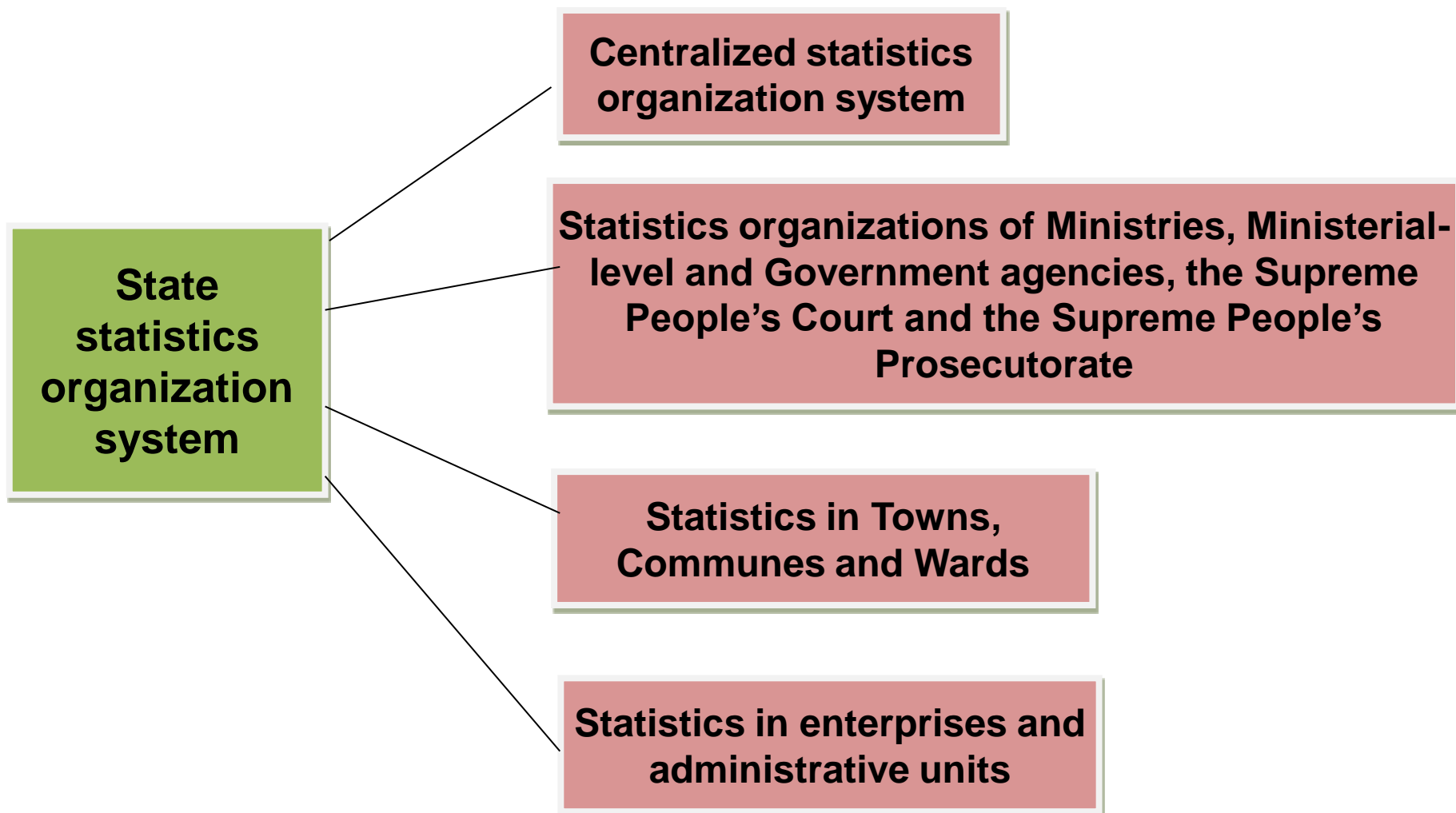
- I. Overview of the statistics system for agricultural mechanization in Vietnam**
- II. Gaps and Needs**
- III. Solutions and Suggestions**



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

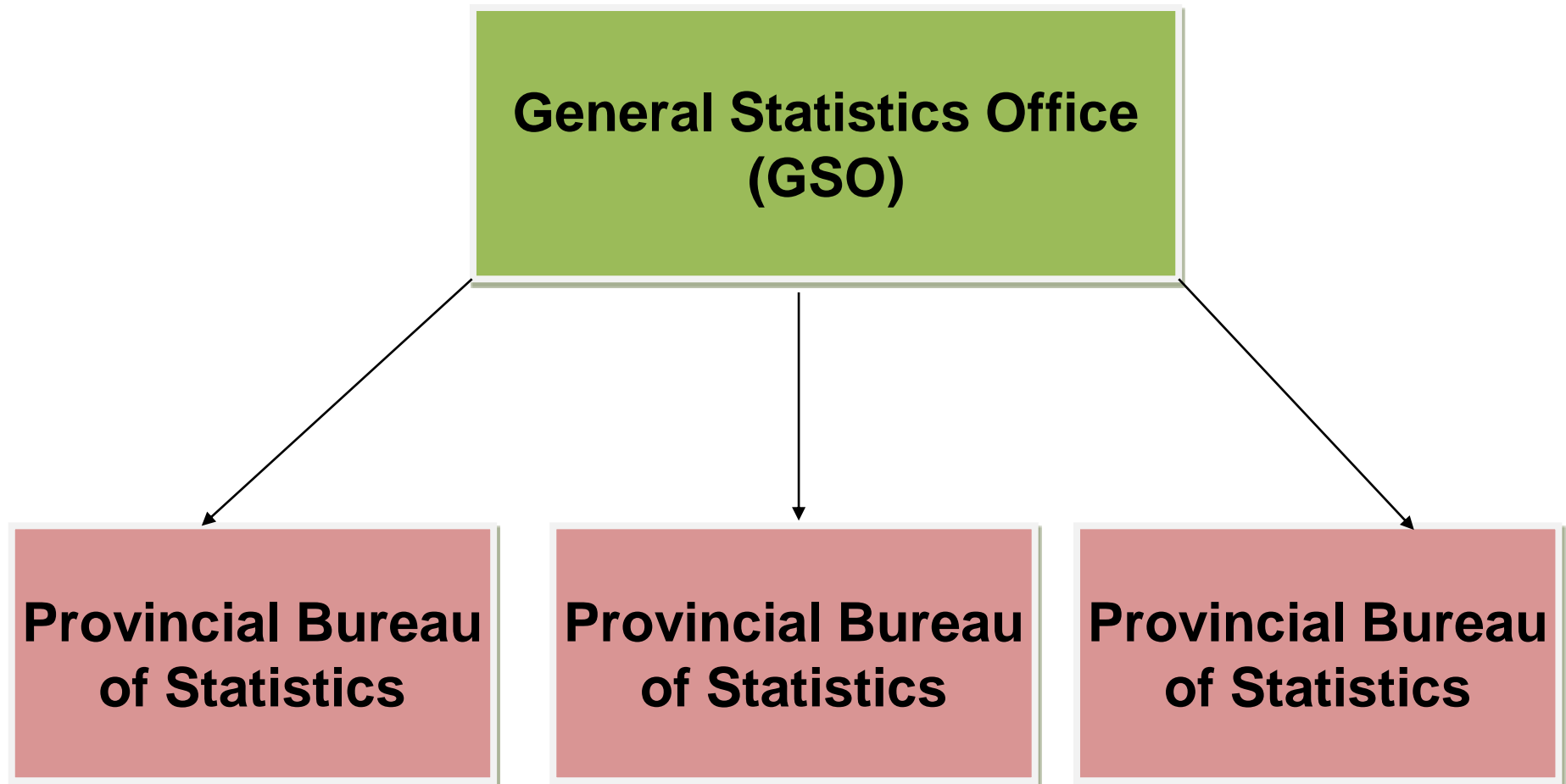
I. Overview of the statistics system for agricultural mechanization in Vietnam (1)

1.1. State statistics organization system



I. Overview of the statistics system for agricultural mechanization in Vietnam (2)

1.2. Statistical system of agricultural mechanization in Vietnam and responsible agency



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))

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

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 I-Results of the 2006 Rural, Agricultural and Fishery Census, quoted enclosed

I. Overview of the statistics system for agricultural mechanization in Vietnam (6)

1.3. Indicators for mechanization in census of in 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).

I. 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.**

I. Overview of the statistics system for agricultural mechanization in Vietnam (8)

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 (I)

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

II. Gaps and Needs (2)

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 though 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

III. Solutions and Suggestions (2)

3.2. Needs and feasibility of establishing a regional database of agricultural mechanization in Asia - Pacific

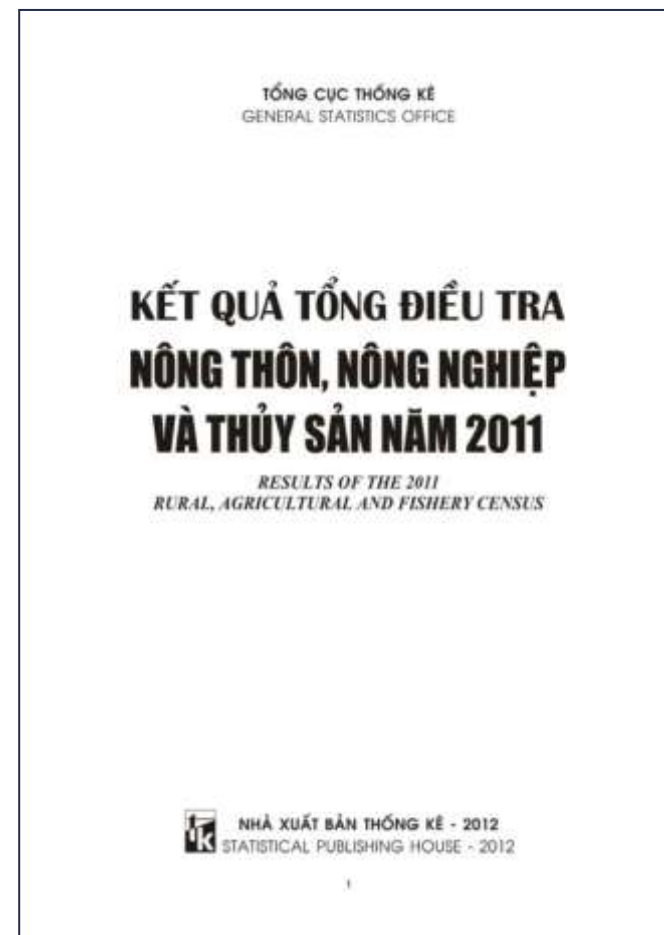
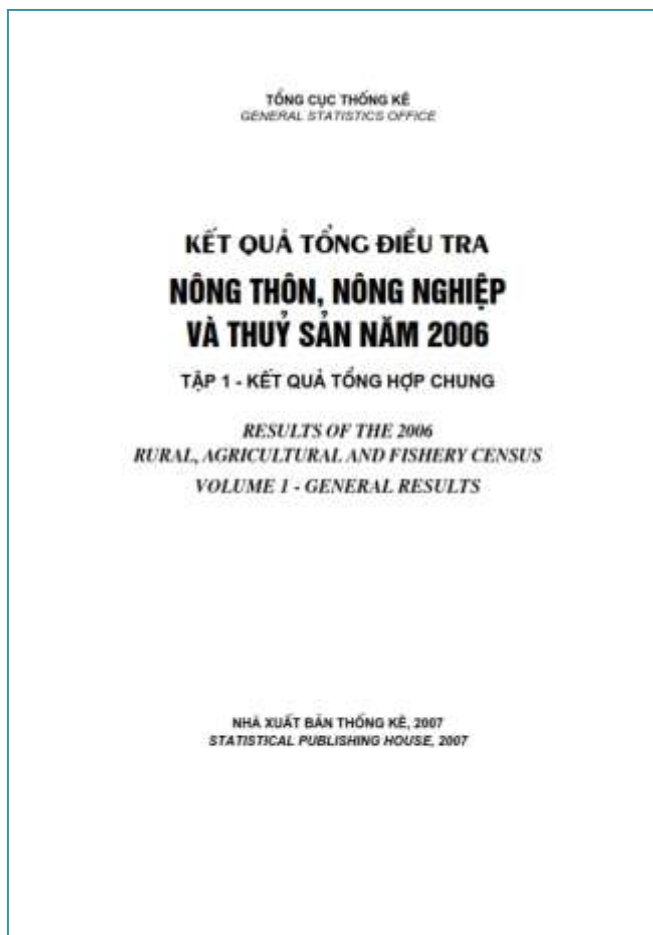
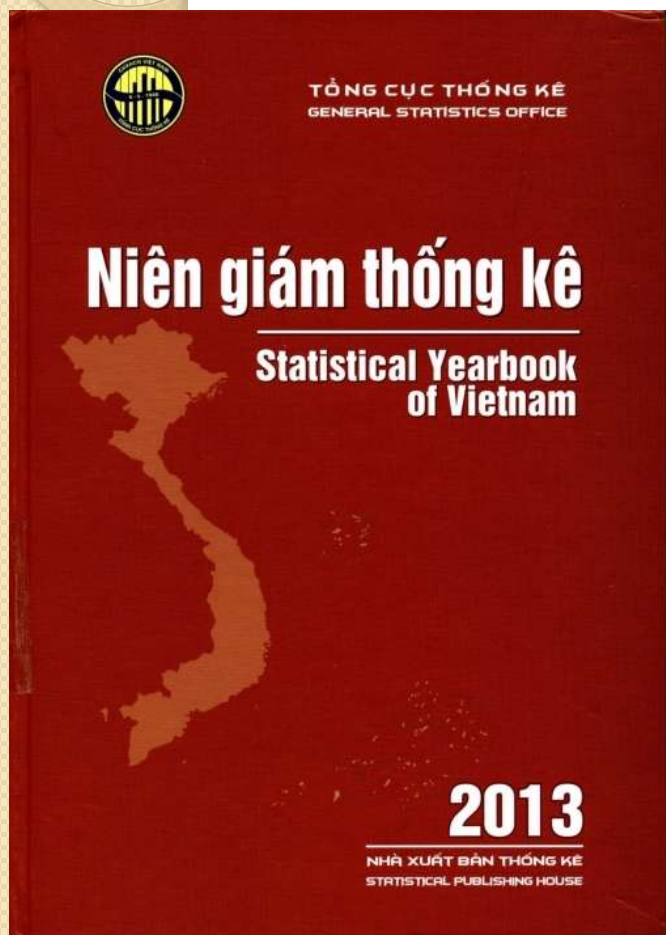
- Needs and feasibility are available for investment, support by organizations
- The region should have statistics data system on agricultural mechanization, especially the ASEAN countries, China, Korea, Japan, which have similar conditions on crop and livestock

III. Solutions and Suggestions (3)

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 I - Results of the 2006
Rural, Agricultural and Fishery
Census, quoted enclosed**



Thank you for your kind listening