



**METADATA FOR
NATIONAL AGRICULTURAL STATISTICS**

VIETNAM

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List of Acronyms

GSO	-	General Statistics Office
PSO	-	Provincial Statistics Office
DSO	-	District Statistics Office
NSO	-	National Statistics Office
MARD	-	Ministry of Agriculture and Rural Development
MONRE	-	Ministry of Natural Resources and Environment
WB	-	World Bank
UNDP	-	United Nations Development Programme
PFO	-	Provincial Fishery Office
PARD	-	Provincial Agriculture and Rural Development Office
PPS	-	Probability proportional to size
MPI	-	Ministry of Planning and Investment
DLSR	-	Department of Land Statistics Registration
GNP	-	Gross National Product
GDP	-	Gross Domestic Product
GVA	-	Gross Value Added in Agriculture

CHAPTER 1. NATIONAL SYSTEM OF AGRICULTURAL STATISTICS

1.1 Legal Framework and Statistical Advisory Bodies

Statistical laws: The Statistical Law of Vietnam has been established since 2003.

Major contents of the Law:

- 1) General rule includes: Scope of Adjustment, Applicability, Interpretation of terms, Fundamental principles of statistical activities, Application of science and technology to statistical performances, Behaviors prohibited in statistical activities;
- 2) Statistical information system includes: Statistical information system, Authority to issue the statistical indicator system, Statistical Classification Tables, Statistical information collection methods;
- 3) Statistical surveys and statistical reports: National Statistical Survey Scheme, Authority to decide on statistical surveys, Statistical survey plans, Finance for statistical surveys, Rights and obligations of a survey executing agency and statistical survey implementers, Rights and obligations of surveyed organizations and individuals, Basic statistical report, Authority to issue regulations on basic statistical report, Rights and obligations of organizations subject to regulations on basic statistical report, Regulations on aggregated statistical report, Authority to issue regulations on aggregated statistical report, Rights and obligations of agencies subject to regulations on aggregated statistical report, Rights to exploit and use statistical database;
- 4) Publishing and using statistical information: Publishing statistical information, Authority to publish statistical information, Using statistical information, Confidentiality of statistical information;
- 5) 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, State-employed statisticians;
- 6) State management in statistics: Contents of state management in statistics, State management agencies in statistics, Statistics Inspection, Jurisdiction and Responsibilities of a statistics inspector, Rights and obligations of inspected subjects regarding statistics;
- 7) Rewards and violation settlements; and
- 8) Implementing provisions

State statistics organization system is regulated in the Statistical Law which include the Centralized Statistics Organization System (GSO) and Statistics Organizations of Ministries.

Centralized Statistics Organization System is vertical from the central to the district levels. The Government provides specific regulations on functions, responsibilities, power and apparatus organization of the Centralized Statistics Organization System.

Statistics Organizations of Ministries: Ministers are responsible for implementation of statistical work according to regulations of this Law. The Government stipulates responsibilities, power and Statistics Organization of Ministries.

To encourage participation in surveys by individuals, firms, and others, there is a provision which regulates the confidentiality of statistical information. The confidential statistical information includes the statistical information associated with a specific name and address of each organization and individual unless that organization and individual permit the publication;

The legal basis for conducting agricultural censuses and surveys is regulated in the Law as follows:

- 1) Based on the national statistical indicator system and the State's regulations on aggregated statistical reporting, Ministries, Ministerial-level and Government agencies, the Supreme People's Court and the Supreme People's Prosecutorate propose statistical surveys to be conducted; The General Statistics Office (GSO) aggregates and submits to the Prime Minister for his decision on long-term and annual national statistical survey schemes. A national statistical survey scheme includes a list of surveys, duration, assignment and conditions for implementation.
- 2) The Government stipulates the conduct of the surveys outside a national statistical survey scheme.

According to the Statistical law, the authority to decide on statistical surveys are as follows:

- 1) The Prime Minister decides on statistical censuses;
- 2) Within their authority, Ministers, Heads of Ministerial-level and Government agencies, the Chief Judge of the Supreme People's Court and the Director of the Supreme People's Prosecutorate decide on statistical surveys apart from the censuses;
- 3) Within their authority, chairs of centralized municipal and provincial people's committees decide on statistical surveys for local management requirements apart from the surveys mentioned.

1.2 Structure and Organization of the Major Agricultural Statistical Agencies

Organization System of the National Statistics Office (NSO)

The National Statistics Office of Vietnam is a centralized organization which includes:

- 1) General Statistics Office (GSO) in the headquarter
- 2) Provincial Statistics Offices (PSO) in provinces/cities (64 provinces)
- 3) District Statistics Offices (DSO) in districts and towns (650 districts)

Organization of the General Statistics Office (GSO) at the Central Level

A. Departments assisting the Director General in state management:

- 1) National Accounts Department: conducting implementation of survey, collecting, editing, processing information on added value and investment capital of agriculture, forestry and aquaculture;
- 2) Statistical Standard and Methodology Department
- 3) Integrated Statistics Department
- 4) Industry and Construction Department: information on enterprises (including agricultural, forestry and aquaculture enterprises);
- 5) Agriculture, Forestry and Fishery Department: collecting, processing information on production conditions (labor, machinery, equipment) of agricultural, forestry and aquaculture producing units in all economic forms (enterprise, cooperative, farm, household) and production results;
- 6) Trade, Service and Price Department: collecting and processing information on price, agricultural export and import, forestry and aquaculture products;
- 7) Population and Labor Department
- 8) Socio-environmental Statistics Department
- 9) International Cooperation Department
- 10) Human Resources Department
- 11) Planning and Finance Department
- 12) Inspection Department
- 13) Administration Department

B. Service units:

- 1) Statistical Research Institute
- 2) Statistical Computer Center
- 3) Statistical Documentation Center
- 4) Figures and Events Journal

- **At the provincial level:** there is a Provincial Statistics Office (PSO) in each province, depending on scale, each provincial office has 25-40 persons. PSO is responsible for managing statistics officers in the office and statistics officers at district level to implement system of report and survey according to regulations of GSO as requirements of the central and local level. Upon conditions of each province, PSO is organized in models with different divisions (there are now models of 7 divisions, 6 divisions, 5 divisions and 4 divisions), but it ensures 2-4 divisions that are responsible for and participate in organizing surveys, report information on agriculture, forestry and aquaculture.

- **At the district level:** there is a District Statistics Office (DSO) in each district, each Division with 3-7 persons who are managed and paid by the GSO. DSO is responsible for organizing surveys and report information in the area of the district.

Human Resources of General Statistics Office (GSO):

	Total activities of GSO	Agricultural
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		Activities
1. Human Resources (excluding temporary staffs)	5,100	870
1.1. Headquarters	500	30
1.2. Local Offices	4,600	840

Organization System of Ministries

a) Statistical System in the Ministry of Agriculture and Rural Development (MARD):

- Central level: There is a Statistics Division which directly belongs to Informatics and Statistics Center. Beside this, there are statistical staffs in specialized Departments, Bureaus and Associations operating in the field of agriculture and rural development.
- Local Statistical System: statistics function is assigned to the Division of plan and investment at provincial level.

Ministry of Agriculture and Rural Development collects and classifies the following information:

- Statistics on monthly, quarterly process of production
- Statistics on laborers, output and income of units belonging to the Ministry
- Statistics on agro-forest products and main inputs on import and export

In addition, Statistics Division of the Ministry also collects and classifies other information such as: salt production, processing production and results of using State investment capital managed directly by MARD and information related to food security, poverty alleviation and rural development.

b) Statistical System in the Ministry of Natural Resources and Environment (MONRE):

- At the central level, there is a Department of Land Statistics Registration (DLSR).
- At local level there are staffs specialized in statistical works. MONRE is responsible for collection of data on land use (setting form, guiding statistical methods and synthesizing annual land statistics and every five-year land inventory).

1.3 Outputs and Dissemination of Agricultural Statistics

Contact information of the focal point of dissemination (including telephone, fax number and e-mail) of the responsible agencies:

1) Mr. Pham Quang Vinh, Director, Dept. of Agriculture, Forestry, Fishery Statistics

GSO (data on: gross output, household, labour, farms, cooperatives, enterprise, planted area, yield, production of crops; livestock, forestry and fishery, machinery and rural infrastructure)

Tel: 84.4.8463522

Fax: 84.4.7341015

Email: pqvinh@gso.gov.vn

2) Ms. Tran Thi Hang, Deputy Director, Dept. of Trade, Service and Price Statistics- GSO (data on price and import, export)

Tel. 84.4.8435454

Fax: 84.4.8464345

Email: tthang@gso.gov.vn

3) Mr. Nguyen Phong, Director, Dept. of Socio-Environmental Statistics – GSO (data on Income)

Tel: 84.4.8439871

Fax: 84.4.8463511

Email: nphong@gso.gov.vn

4) Mr. Bui Ba Cuong, Director of National Accounts Department – GSO [data on Gross National Product (GNP), Gross Domestic Product (GDP), Gross Value Added (GVA) in agriculture].

Tel. 84.4.8463494

Fax: 84.4.8464345

Email: bbcuong@gso.gov.vn

5) Mr. Dong Ba Huong, Director, Dept. of Population and Labor Statistics – GSO (data on Population and Rural Population).

Tel: 84.4.8230100

Fax: 84.4.7339287

Email: dbhuong@gso.gov.vn

6) Do Duc Doi, Deputy Director, Dept. of Land Statistics Registration - Ministry of Natural Resources and Environment (MONRE) (data on Land Use)

Tel. 0913226296 (mobile phone)

Email: doducdoi@yahoo.com

Major Statistical Reports and Publications

Title of Publication	Domains/ Contents	Medium	Format	Periodicity/ Frequency	Release Calendar
Statistical Yearbook of Vietnam	Land use, planted area, yield, production of crops, livestock, forestry, fishery, price index, export, etc.	Vietnamese and English	Books, CD-Rom, Website of GSO	Annual	June
Statistical Handbook	Key indicators at national level	Vietnamese and English	Handbooks	Annual	March
Vietnam Statistical Data in the 20 th century	Production, trade, prices, labour, etc.	Vietnamese and English	Books, CD-Rom	-	2005
Results of the 2001 Rural, Agricultural and Fishery Census	Actual situation of Rural area, agriculture and fishery of Vietnam in 2001	Vietnamese and English	Books, CD-Rom	-	2003
Results of the 1994 Rural, Agricultural and Fishery Census	Actual situation of Rural area, agriculture and fishery of Vietnam in 1994	Vietnamese	Books	-	1995
Statistical Data of Vietnam Agriculture, Forestry and Fishery (1975-2000)	Production, land use and labour	Vietnamese and English	Books	-	2001
Monthly Report on Agriculture, Forestry and Fishery	Production	Vietnamese	Bulletin	Monthly	every 25 th of each month
Quarterly Report on Agriculture, Forestry and Fishery	Production, prices and trade	Vietnamese	Bulletin	Quarterly	every 25 th of Mar., June, Sept. & Dec.
Today's Price Index	Prices and trade	Vietnamese and English	Bulletin	Monthly	every 5 th of each month

Additional Notes on Information Dissemination

Pricing Policy. All mentioned publications are provided (free of charge) to all main users in the country (Central and Local Government Office, related ministries, etc.)

Website Access and Ministerial Commentary. Users can also get the information by accessing the website of GSO (www.gso.gov.vn), or buy publications in bookshops, in the Statistical Publishing House (www.nxbthongke.com.vn) or in announcements and press conferences held by GSO (there are normally 9-10 announcements and 3-4 press conferences every year).

1.4 Dialogue with Data Users and Cooperation with International Organizations

The GSO is implementing various to satisfy the needs of users such as:

- Holding meeting with main users (government, related ministries such as: Ministry of Rural Development, Ministry of Fishery, Ministry of Planning and Investment,) before conducting censuses and survey;
- Sending to main users tentative indicators or GSO intend to collect to get their comments or suggestions;
- Studying carefully the strategies and plans made by the Government and ministries.

GSO has been cooperating with other international organizations in Vietnam such as: World Bank (WB) and United Nations Development Programme (UNDP) to set up indicators for monitoring programs or plans.

1.5 Strategic Framework

Agricultural Statistics Development Plan

Targets: Renovation of Vietnam agri-statistics in quality and form with aims to timely provide full information in content and trustful in quality. This is to fulfill the requirement of the Party and the State in the process of building and developing the country, meet the users' demand in using information, help the agri-statistics of Vietnam keep pace with other countries in the region, correspond with international routines, and pave the way for the international integration process of the country.

Vietnam Agri-Statistics Development Plan until 2010

- 1) Perfection and standardization of agri-statistical products concerning time, content and form. The editing process includes: agro-production situation statistical reports, statistical yearbooks on results of General and statistics surveys, yearly statistical products and analyzed and statistical forecast products. Enhancement of statistical information popularizing with aims to

- meet the demand of the Party, the State, ministries and other users. Establishment of a mechanism in which statistical information is transparent. There should also be methods which can enhance the statistical information popularizing capability to every user.
- 2) Improvement of statistics method by applying model statistics methods which correspond with international and Vietnamese situation criteria and routines.
- Allotment and coordinating organization in statistical projects, establishment of national statistical programmes, establishment of a general and grassroots statistical report system based on the national criteria system which was approved by the Prime Minister.
 - GSO should organize general surveys on agriculture and fishery every 5 years based on the information need of the Government and ministries. Allotment and organization of periodical and annual surveys in a reasonable way among the General Statistics Office (GSO) and other ministries by allotting responsibilities in collecting and synthesizing into a national criteria system based on the need of various kind of information of each ministries. Coordination and enhancement among the general statistical system set up by GSO, Ministry of Agriculture and Rural development, and grassroots authorities in giving guidance and examination of surveys.
 - Improvement of the enterprise statistical report mechanism with aims to reduce periodical reports and enhance information collection by organizing surveys that correspond with each enterprise. This helps guarantee that information in statistical reports reflect precisely and fully the situation of the enterprises, reports provide necessary information in order to calculate and define those criteria on agri-production and agri-business.

The Challenges Ahead: Issues and Concerns

- There is no professional statistical staff at the commune level, there is only the Administration - General statistics staff. This staff is responsible not only for administering but also for statistical jobs. Therefore, agri-statistics surveys are mainly done at the commune level. This requires of course other staff of other fields who are not keen on the statistical job. In most cases, district statistical staff will be required.
- Each grassroots level is in need of agricultural data (from provincial level to district and commune level), but those sample surveys set up by General Statistics Office are generalized to district level, some criteria even only generalized to provincial level. That clarifies the fact that many localities have organized separated surveys, or supplemented many of sample surveys. This brings about the complexity of doing surveys and the confusion in collecting

various data that come from different sources. The assessment on agriculture situation in localities therefore has to face the underlying obstacles.

- There are still many problems in the agri-statistics system that fail to meet the requirement of information users: It is easy to figure out that the system still places more emphasis upon quantities and assets while ignoring information on effectiveness and value. Some criteria are at low quality and there is a contradiction between the criteria held by central level and grassroots levels. Information update is not frequent, and users have to suffer from many obstacles in information access. The main reason here is that there are many units dealing with agro-production and agro-services, about 14 million units; besides, there is a mixture of different economic sectors, most units have small production scales dispersing in households with various activities. These bring about a huge complicated pile of initial information.
- Moreover, equipment of the centralized statistical system in agriculture is insufficient, especially in grassroots levels. Therefore, there is a huge contradiction among the information of various levels and the capability of information collection and providing of the whole agri-statistical system.

A Need for International Cooperation and Technical Assistance

International cooperation and technical assistance are very necessary in the field of Livestock and Fishery Statistics.

CHAPTER 2. MAJOR DOMAINS AND SELECTED INDICATORS OF AGRICULTURAL STATISTICS

2.1 List of Major Domains and Selected Statistics and Indicators

Domain	Statistics/Indicators
<p>PRODUCTION</p> <ul style="list-style-type: none"> <li data-bbox="240 575 370 604">▪ Crops <li data-bbox="240 795 480 863">▪ Livestock and Poultry <li data-bbox="240 1016 402 1045">▪ Forestry <li data-bbox="240 1163 386 1192">▪ Fishery <li data-bbox="240 1528 513 1596">▪ Macroeconomic Indicators 	<p>Volume of crop production by main crops such as paddy (spring paddy, summer paddy, autumn paddy), maize, sweet potatoes, cassava, sugarcane, peanut, soya bean, coffee, tea, rubber, pepper, cashewnut, coconut,...</p> <p>Value of crop production by each crop</p> <p>Volume of livestock and poultry production: Livestock and poultry inventory by type of live animals, livestock & poultry production by main livestock and poultry (Buffaloes, cattle, pig, horses, goats, sheep, poultry).</p> <p>Value of livestock and poultry production by main products</p> <p>Production of wood, current forest area including natural forest area and area of planted forest, area of fired and destroyed forest</p> <p>Volume of fishery production. The production is divided into caught products and cultured products:</p> <ul style="list-style-type: none"> - Caught products including sea catch (fish, shrimps and other fishery products) and inland catch - Cultural products including fish, shrimps and other fishery products) <p>Value of fishery production, breakdown by caught products and cultured products</p> <p>Gross National Product Gross Domestic Product Gross Value Added in Agriculture, Forestry and Fisheries Gross Value of Output in Agriculture, Forestry and Fisheries</p>

Domain	Statistics/Indicators
TRADE	Total value of exports and imports Volume of agricultural exports by main products (paddy, coffee, rubber, tea, cashewnut, pepper) Value of agricultural exports and imports by main products
AGRICULTURAL MACHINERY	Number of agricultural machineries (Electric motor, harvester, thresher, dryer, miller, saw machine, pump engine, food processing machine for livestock, etc.)
LAND USE	Total farm area Irrigated area Area cultivated to crops
LABOR AND EMPLOYMENT	Rural population Labor force in agriculture Active population in agriculture
OTHERS	Rural infrastructure Rural employment Rural income

2.2 Metadata for Each of the Major Domains

2.2.1. Production

2.2.1.1 Concepts, Definitions and Classifications

CROPS

Production of agricultural crops - is the total volume of primary products of a certain agricultural crop or group of crops harvested in a season or an agricultural year by a production unit or a region. Crop production data are recorded in tons (1000kg).

Production of cereals - is the total output of paddy, maize, and others such as wheat, millet, kaoliang, etc. produced in a given time, excluding harvesting and threshing losses and that part of crop not harvested for any reason.

Production of paddy - is the dry clean paddy output of all crops in year. Output of a year is the harvest of the crop within the year, excluding loss during harvest, transport, and threshing, etc. (destroyed by mice, loss in fields, ruined before storing).

Production of maize - is the output of dry clean maize harvested in year.

Production of root crops - refers to the yield of cassava, sweet potatoes, winged yam, taro, edible canna, and other root crops produced in a given time.

Harvested area - refers to the total sown/planted area of a particular crop or group of crops in a reference season, from which the crop is gathered at least 10% of yield of ordinary season. For annual crops, harvested area is equal to sown area minus non-harvested area; for perennial crops, it is equal to the area in productive age minus non-harvested area. Area harvested is recorded in hectares (Ha).

Perennial plants - are those growing and giving products in many years, including perennial industrial plants (tea, coffee, rubber etc), fruit plants (orange, lemon, longan, etc) and perennial medical plants (cinnamon, etc).

Annual plants - are those growing only within a year, including grain plants (rice, maize, millet, wheat, etc), annual industrial plants (sugarcane, rush, etc), annual medical plants, and vegetables.

Yield of agricultural crops - refers to main product per unit area of a certain agricultural crop or group of crops harvested in a season or an agricultural year. Data are recorded in quintal (100 kg) per hectare (Q/HA).

- Two kinds of yield of annual crops:

$$\text{Sown yield} = \frac{\text{Harvested production}}{\text{Sown area}} \quad (1)$$

$$\text{Harvested yield} = \frac{\text{Harvested production}}{\text{Harvested area}}$$

- Two kinds of yield of perennial crops:

$$\text{Yield in productive area} = \frac{\text{Harvested production from productive area}}{\text{Total productive area}} \quad (2)$$

$$\text{Harvested yield} = \frac{\text{Harvested production from harvested area}}{\text{Total harvested area}}$$

(1) and (2) are normally calculated in Vietnam.

LIVESTOCK AND POULTRY

Total Meat Production – refers to the number of animals slaughtered in live weight terms.

Data covers both commercial and farm slaughter.

Total meat production (in live weight) includes meat from animals slaughtered in countries, irrespective of their origin and comprises horse meat, poultry meat and meat from all other domestic or wild animals such as camels, rabbits, reindeer and game animals. In Vietnam, data on meat production shown for refer to years ending 31 July.

Total Poultry meat production - includes meat from all domestic birds and is expressed in terms of live weight.

Total cattle and buffaloes - is the existing number of cattles and buffaloes at the enumeration time (including the newly born cattle 24 hours before the survey).

Total pigs - is the existing number of pigs at the enumeration time, including pigs for pork, sow, and male pigs for seed (excluding sucking pigs).

Total poultry - is the number of chickens, ducks, perching ducks and goose at the enumeration time.

Cow's Milk, Milking Cows and Milk Production - Data on cow milk production relate to total production of whole fresh milk, excluding the milk sucked by young animals but including the amount fed to livestock. Yield per cow is the result of dividing the production of milk by the number of milking cows. Milk production data shown for refer to years ending 31 July. It is recorded in tons.

Egg production - refers to the numbers of eggs produced for years ending 31 July, in both agricultural and non-agricultural sectors.

Honey production - is recorded in tons.

FORESTRY

Current Forest Area - refers to total current area of forests in a reference time. According to different research purposes and group division methods, current forest area is divided into:

- Natural and planted forest area
- Primeval forest area and exhausted forest area
- Copsewood and sapling forest area
- Purebred forest and mixed forest area
- Productive forest, protective forest, and special forest area

Natural Forest - is the one not planted by people, including production forest, protective forest and specially utilized forest. It must satisfy one or two standards: 1) Forest with the average wood reserve from 25 m³ to 1 Ha and over; 2) Coverage of the forest > 0.3 (total area of coverage > 30% of the area of the forest).

Area of Planted Forest - includes area with the forest and new forestation.

Production of Wood - includes round wood; wood for making paper, ship, boats and wood for making other products acquired from planted forest, natural forest and from separate planted trees.

Area of Fired Forests - refers to fired natural and planted forests which are unable to recover, excluding area of cane-brake, reed forests and eco-worthless forest area burnt.

Area of destroyed forests - refers to the area of natural and planted forests destroyed for agricultural production, and for wood and other forestry products without permission to the authorities.

FISHERY

Production of Fishing - refers to total volume of production of one or a group of aquatic species harvested or caught in a given period, comprising production of caught products and production of farmed products:

Production of caught product - includes catches from sea, and from rivers, streams, lagoons, or ponds.

Production of farmed products - includes all aquatic products from aquaculture.

Output Value of Fishing - refers to value of exploited sea products, and aquatic products exploited naturally in rivers, ponds, lagoons, and water fields; value of roughly processed, cultivated and multiplied sea products and value of unfinished sea products.

Area of Aquaculture - refers to total area of water surface for aquaculture, including edge area, supplement area for breeding and hatchery area such as filtering ponds and letting out ponds. Area of aquaculture, however, excludes specializing water surface area such as for irrigation and hydroelectric lakes but still use for aquaculture.

MACROECONOMIC INDICATORS

Gross Value of Output in Agriculture - refers to the value of farming and breeding products (including unfinished products) and services and value of such activities as hunting, taming and related services. The indicator is recorded in Billion Vietnam Dong (1USD = 16000 VND).

Gross Value of Output in Forestry - includes value of such activities as newly growing, cultivating, fertilizing, improving, localized cultivating of forests, value of exploited forest products, value of plants and seeds, value of forest protection and other forest services in a given period, and value of unfinished products of forest cultivation.

2.2.1.2 Coverage, Availability, Data Sources and Responsible Agencies

Statistics/ Indicators	Coverage	Availability	Data Source	Responsible Agencies
CROPS				
Volume of Crop Production	national and sub-national levels	1975 - 2005	Survey of Yield and Production	GSO
Value of Crop Production	national level	1975 - 2005		GSO
Planted Area	national and sub-national levels	1975 - 2005	Survey of Planted Area	GSO
Yield	national and sub-national levels	1975 - 2005	Survey of Yield and Production	GSO
LIVESTOCK AND POULTRY				
Volume of Livestock and Poultry Production	national and sub-national levels	1975-2005	Survey of Livestock and Poultry	GSO
Value of Livestock and Poultry Production	national level	1975-2005		GSO
FORESTRY				
Quantity of Forestry production	national and sub-national levels	1975 – 2005	Survey & Administrative Records	MARD & GSO
Value of Forestry production	national and sub-national levels	1975 – 2005		GSO
FISHERY				
Quantity of Fishery production	national and sub-national levels	1975 – 2005	Survey of fisheries	GSO
Value of Fishery production	national and sub-national levels	1975 – 2005		GSO

Statistics/ Indicators	Coverage	Availability	Data Source	Responsible Agencies
MACROECONOMIC INDICATORS				
Gross Domestic Product	national level	1975 – 2006		GSO
Gross value added in agriculture	national level	1975 – 2006		GSO
Gross value of Output in agriculture	national and sub-national levels	1975 - 2006		GSO

2.2.1.3 Data Processing, Estimation and Revision Methodology

A. CROPS

Production of Paddy

Estimation and/or Compilation Procedure

Estimates are calculated at three levels: district, provincial and national.

1. District level estimates

An estimate of yield rate for the district is calculated by using the formula:

$$Y_d = \frac{\sum_{h=1}^n P_h}{\sum_{h=1}^n A_h}$$

Where:

- Y_d = An estimate of yield rate for the district
- P_h = Paddy production of sample household
- A_h = Paddy planted area of sample household
- n = Number of sample households in district

Estimation of production for the district is based on the following formula:

$$P_d = Y_d \times A_d$$

Where:

P_d = Paddy production of the district
 A_d = Paddy planted area of the district

2. Provincial estimates

An estimate of yield rate for province is obtained by using the formula:

$$Y_p = \frac{\sum_{d=1}^m P_d}{\sum_{d=1}^m A_d}$$

Where:

Y_p = Yield estimate of the province
 m = Number of districts in the province

Estimation of production for the province is as follows:

$$P_p = Y_p \times A_p$$

Where:

P_p = Paddy production of the province
 A_p = Paddy planted area of the province

3. National estimates

An estimate of yield rate for the whole country is obtained by using the formula:

$$Y_n = \frac{\sum_{p=1}^k P_p}{\sum_{p=1}^k A_p}$$

Where:

Y_n = Yield estimate of the country
 k = Number of provinces in Vietnam (k=61)

Estimation of production for the whole country as follows:

$$P_n = Y_n \times A_n$$

Where:

P_n = Paddy production of the whole country
 A_n = Paddy planted area of Vietnam.

B. CROPS (OTHER THAN PADDY)

Estimation and/or Compilation Procedure

1. District level estimates

Yield calculated from the sample households is used to present average yield of the district. Crop production is the product of this yield and total area planted to the crop of the whole district.

A certain sample is designed that will correspond to a specific crop. However, sample size could be expanded due to the important role of the crop in the locality but shall not exceed the number of sample households in the paddy survey.

With tree crops (perennial crops) namely: Coffee, Tea, Rubber, Longan,...) a special attention should be allotted to Area planted to crop and Area under productivity.

- The yield of tree crop corresponds to the area under productivity of crop. Therefore, production of tree crop is estimated by the formula:

$$\begin{array}{l} \text{Production harvested} \\ \text{from area under} \\ \text{productivity} \end{array} = \begin{array}{l} \text{Yield from} \\ \text{area under} \\ \text{productivity} \end{array} \times \begin{array}{l} \text{Total area under} \\ \text{productivity} \end{array}$$

- Production from the newly planted area should be added to the production harvested from area under productivity to get the total production.

2. Provincial and National estimates

Procedures of estimation at provincial and national levels are the same as in the case of Paddy production estimation.

Revision of Estimates

Revisions are done at all levels: district, provincial and national. Revision will be taken before the release of the official data. During the implementation of the survey, statisticians at the Provincial Statistics Office (PSO) have to go down to lower level to make their careful evaluation and examination of the sample selection of DSO and communes to ensure that all samples were chosen according to agreed

procedures. District Statistics Office (DSO) statistician has to review all questionnaires. A post interview at the household can be arranged by the DSO staff if any big problem is encountered.

C. LIVESTOCK AND POULTRY

Estimation and/or Compilation Procedure

Number of livestock (buffalo, cattle, pig)

Estimates are calculated at three levels: district, provincial and national

1. District level estimates

The final estimation for the district level is generally computed as follows:

$$\text{Estimation of district (E)} = R \times P$$

Where:

$$R \text{ (Annual growth rate of the surveyed variable)} = \frac{\text{Value of variable gained from the sample units}}{\text{Value of the same variable of the last survey/last year}}$$

P = is the last estimate of the given variable

For example: With buffalo of district A.

2005: Final estimate is 950 heads (as survey 1st August 2005) while result from the sample is 50 heads

2006: from survey 1st August 2006 at the same samples we have 55 heads. R is calculated at 55/50=1.1 or 110%. So final estimation of 2006 is 950 x 1.1 =1045 heads.

This formula is used for calculating all surveyed variables (items) for every year.

2. Provincial and National estimates

The estimates for the province and the whole country are the aggregated data from all districts or provinces.

Number of Poultry and Animal Products

Estimates are done for the whole province..

The following are some main formulas to produce the final estimates for the province:

Number of buffaloes, cattle, pig, poultry slaughtered	=	Total of buffaloes, cows, pig, poultry	x	Proportion of buffaloes, cows, pig, poultry slaughtered of the samples
Liveweight of buffaloes, cows, pig, poultry slaughtered	=	Number of buffaloes, cows, pig, poultry slaughtered	x	Average weight per head of buffaloes, cows, pig, poultry slaughtered from the samples
Total of chicken, duck, goose	=	Total of chicken, duck, goose last year/last survey	x	Growth rate of the samples (R)
Total eggs produced	=	Number females (egg - laying)	x	Eggs produced per egg - laying of the samples

Data Review

Post-survey is conducted in 2 or 3 districts for each province to review data collected and estimates.

D. FORESTRY

Data on forestry are collected through: 1) Regular reporting system applied for state sector and 2) conducting survey to collect information for non-state sectors.

1. For state sector

The contents of the reports prepared by state units consisted of quantitative and value items as follows:

- 1) Gross output of forestry by economic activities and each product, calculated at current prices and constant prices.
- 2) Production, consumption and turnover. It includes production obtained in kind and value of main products such as concentrated afforestation, forest care, scattered trees planted, forest land allocated for protection, exploitation of round wood, fire wood, bamboos, slender bamboos, pulp and paper material, rattan, etc, the consumption of wood, fire wood, etc, products in stock and taxes paid.

- 3) Forest management and protection. This consists of indicators on land and forest allocation, value and area of forest damaged by fire, forest loss by deforestation for planting agricultural crops. This is reported every 6 months.

One or more staff in each state unit will be assigned to complete and send reports to Provincial Statistical Offices according to the forms and items required.

The checking and monitoring activities are frequently carried out by PSOs to make sure the Statistical Reporting Regulations is seriously and strictly executed.

2. For non-state sector

The main participants of non-state sector are the households. Collection of data through conducting sample survey, thus, is the sound method for this sector.

Production of Forestry

Refers to the number of scattered trees, volume of round wood, fire wood, bamboos, slender bamboos, pulp and paper material, rattan, etc.

Estimation and/or Compilation Procedure

1. Aggregation per stratum

The data collected from sample households and other units of the stratum are aggregated. Then, the average indicators per capita (or per household) of that stratum will be calculated. The total of the stratum will be estimated by multiplying the average indicator per capita or household of each product with the forest households of that stratum.

2. District level estimates

The total production of a product in one district will be calculated by aggregating all strata in that district.

3. Provincial estimates

The total production of a product in one province will be calculated by aggregating all districts in that province.

Data Review

Data collected will be reviewed at three levels: DSO, PSO and GSO. Data collected will be reviewed by DSO before sending to PSO. At the provincial level, data review will be undertaken after survey returns are processed and estimates have been generated. The results, then, will be sent to GSO for consolidation and review at the

national level. The comparison with data previously collected and data of other related sources should be taken into account when reviewing the collected data at each level.

E. FISHERY

Production of Fisheries

Estimation and/or Compilation Procedure

Data collected is aggregated and calculated as follows:

- 1) Aggregation of data collected through complete enumeration for entire district and each stratum.
- 2) Aggregation of survey items collected from sample units for each stratum.
- 3) Mean of surveyed items will be estimated for each region.
- 4) Calculating the following average indicators for each stratum:
 - Culture production by type of fishery products per one unit (m² or Ha) of water surface area used for fishery culture.
 - Capture fishery production by type of fishery products per fisherman, per fishing boat (or per horsepower).

The estimation is made for each fishery product in each stratum using the following general formula:

$$E_i = P_i \times T_i$$

Where:

- E_i = the estimation of item X in stratum i^{th}
- P_i = the average yield rate of item X in the i^{th} stratum (P_i is calculated from sample units).
- T_i = the total number of item X in stratum i^{th}

1. District level estimates

The total production of a fishery product in one district will be calculated as follows:

- a) Aggregation of all strata in that district to get the production in non-state sector.
- b) Aggregation of all state units (enterprises, establishments, farms, etc)
- c) Total production of a fishery product for entire district territory = (a) + (b)

2. Provincial estimates

The total production of a fishery product in entire provincial territory will be simply calculated by summing up the production of that product of all districts in the province.

Data Review

Data collected and aggregated should be strictly and carefully reviewed at different levels. Basing on general instructions set by GSO, PSOs need to prepare their own instructions for the districts. The instructions should be detailed and suitable to actual situations of each local area. When preparing and conducting the survey, it is very necessary for PSOs to cooperate closely with Provincial Fishery Offices (or Provincial Agriculture and Rural Development Offices) to ensure that the coverage, contents and results of the survey are consistent.

2.2.2 Trade

2.2.2.1 Concepts, Definitions and Classifications

Export goods - include domestic goods and re-export goods which are exported to the rest of the World or sent to bonded warehouse or to the free circulation area to subtract from the stock of material resources of the country.

Domestic goods - are those produced, exploited and manufactured in Vietnam (including compensating products after inward processing).

Re-export goods – are those imported into Vietnam and then exported again in the same state as previously imported. They may be re-packaged without changing the nature of the goods.

Import goods - are foreign goods and re-import goods entered in Vietnam from the rest of the World, bonded warehouses or the free circulation area to add the stock of material resources of the country.

Foreign goods - are those originating from the rest of the World (including compensating products after outward processing).

Re-import goods - are Vietnamese goods exported to the rest of the World and then imported into Vietnam again in the same state as previously exported. They may be re-packaged without changing the nature of the goods.

Value of Export and Import is total value of goods out or into Vietnam to decrease (Export), or increase (Import) the wealth of Vietnam in a given time.

2.2.2.2 Coverage, Availability, Data Sources and Responsible Agencies

Statistics/ Indicators	Coverage	Availability	Data Source	Responsible Agencies
Total value of exports and imports	national level	1985-2005	Administrative record	Customs Office & GSO
Volume of agricultural exports by main products	national level	1985-2005	Administrative record	Customs Office & GSO
Value of agricultural exports and imports by main products	national level	1985-2005	Administrative record	Customs Office & GSO

2.2.3 Prices

2.2.3.1 Concepts, Definitions and Classifications

Producer's Price of Agriculture, Forestry and Fishing products - refers to the price of agriculture, forestry and fishing products sold by agricultural producers directly to buyers, excluding taxes and additional levies.

Producer's Price Index of Agriculture, Forestry and Fishing Product - is an indicator reflecting the price change of products sold by agricultural producers in the market over time.

Laspeyres formula is utilized to calculate producer's price index of agriculture, forestry and fishing products. The weight to calculate producer's price index of such products, also normally fixed for five years, is the proportion of sales of each commodity group as compared to total sales of the whole agriculture, forestry and fishing industries in base year. Base price is also the price in base year.

Producer's price index of agriculture, forestry and fishing products is calculated every quarter, every six months, and every year with three bases, say, base year, previous period, same period of previous year.

2.2.3.2 Coverage, Availability, Data Sources and Responsible Agencies

Statistics/ Indicators	Coverage	Availability	Data Source	Responsible Agency
Prices of selected agricultural products	national and sub-national levels	1985-2006	Survey on price of agricultural products	GSO
Producer price index of agriculture, forestry and fishing products	national and sub-national levels	1985-2006	Survey on price of agricultural products	GSO

2.2.4 Agricultural Machinery

2.2.4.1 Coverage, Availability, Data Sources and Responsible Agencies

Statistics/ Indicators	Coverage	Availability	Data Source	Responsible Agency
Agricultural Machinery	national and sub-national levels	1994, 2001, 2006	Census of Agriculture	GSO

2.2.5 Land Use

2.2.5.1 Coverage, Availability, Data Sources and Responsible Agencies

Statistics/ Indicators	Coverage	Availability	Data Source	Responsible Agencies
Total farm area	national and sub-national levels	1975-2005	Administrative record	MONRE
Irrigated area	national and sub-national levels	1985-2005	Administrative record	GSO
Area cultivated of crops	national and sub-national levels 1975-2005		Administrative record	MONRE

2.2.6 Labor and Employment

2.2.6.1 Coverage, Availability, Data Sources and Responsible Agencies

Statistics/ Indicators	Coverage	Availability	Data Source	Responsible Agency
Rural Population	national and sub-national levels	1985-2005	Survey of Population changes	GSO
Active Population in agriculture	national and sub-national levels	1979, 1989, 1999	Population Census	GSO
Labor force in Agriculture	national and sub-national levels	1979, 1989, 1999	Population Census	GSO

2.2.7 Others

2.2.7.1 Concepts, Definitions and Classifications

Income of the Household - is the total sum of money that the household and its members get in a given time (usually a year), including: 1) Revenue from salary; 2) Revenue from agriculture, forestry and fishing activities (less intermediate cost and production tax); 3) Revenue from non- agriculture, forestry, and fishing activities (less intermediate cost and production tax); 4) Other revenues (excluding savings withdrawal, net lending, receivable debt payment and capital transfer).

Household Expenditure - includes expenses on food and non-food and other expenses (gift, contribution, etc.), excluding production cost, production tax, savings, loans, debt payment, and others.

Household Expenditure Per Capita - shows all the money and the value of items spent and consumed by a household per capita in a given period of time (usually for a month or a year).

$$\text{Monthly expenditure per capita of household} = \frac{\text{Total expenditure of the household}}{\text{Number of persons in the household}}$$

2.2.7.2 Coverage, Availability, Data Sources and Responsible Agencies

Statistics/ Indicators	Coverage	Availability	Data Source	Responsible Agency
Rural Infrastructure	national and sub-national levels	1994, 2001, 2006	Census of Agriculture	GSO
Rural Employment	national and sub-national levels	1994, 2001, 2006	Census of Agriculture	GSO
Rural income	national and sub-national levels	1996, 1998, 2000, 2002, 2004	Household survey	GSO

CHAPTER 3. MAJOR DATA SOURCES FOR AGRICULTURAL STATISTICS

3.1 List of Major Agricultural Censuses, Surveys and Registers

Census

1. Census of Rural, Agriculture, Forestry and Fishery
2. Population Census

Surveys

1. Planted Survey
2. Yield and Production Survey
3. Livestock Survey
4. Fishery Survey
5. Forestry Survey
6. Farm and Cooperative Survey
7. Household Income and Expenditure

Registers

1. Custom Office Registers
2. Statistical Cooperatives and Enterprises Registers
3. Land Use Registers

3.2 Metadata for Each of the Major Censuses

3.2.1 Census of Rural, Agriculture, Forestry and Fishery

3.2.1.1 Overview

The census of rural, agriculture, forestry and fishery is conducted every 5 years.

Historical Background

Up to now, this census was conducted 3 times in Vietnam (1994, 2001 and 2006).

Objectives

The Census is designed to collect basic information relating to the rural areas, agriculture and aquaculture with a view to meet demands of relevant authorities for assessing the current situation and changing patterns in recent years and preparing strategies and plans for rural, agricultural and aquaculture development for the whole country as well as for each locality.

The Census results are expected to serve as a basis for assessing the progress of national targeted programs as part of a broader effort to modernize and industrialize rural areas such as electrification of rural areas, construction of rural traffic, providing

drinking water to rural areas, sending doctors of medicine to communes, solidification of canals and ditches, promoting overseas fishing, creation of communal post and cultural points, etc.

As far as the statistical work is concerned, the Census is conducted in order to establish a rural, agricultural and aquaculture database that may be used to formulate a sampling frame for annual surveys and verify results of sample surveys between 2 censuses with a view to gradually enhance the quality of statistics in this important area.

3.2.1.2 Census Design

Sampling Frame:

For sample survey, sampling frame was based on information collected in the complete enumeration part of the census.

Sampling Design / Statistical Unit / Selection Procedure:

The censuses were undertaken in two parts: a complete enumeration and a sample survey. The samples were selected using three-stage sampling. In each district, the samples of communes and villages were selected using stratified systematic probability proportional to size (PPS) sampling. Then, the sample households in each sample village were selected using stratified systematic random sampling.

Main Data Items and Variables for Operational Purposes:

- 1. Essential information relating to rural households:** include number of households, household members, employees by actual activity they were engaged in, area of agricultural land used, machinery and equipment, number of livestock and poultry; area of major perennial crops, number of fishing boats and machinery, equipment, area of water surface used for aquaculture production.
- 2. Rural information:** electricity, road system, clinics, schools, access to clean water, market, system of technical and material facilities, aquaculture and rural economy, rural services; education and professional levels of several key administrative positions in the communes; progress of a number of targeted national programs on rural development, agriculture and aquaculture.
- 3. Information relating to the quantity and actual performance of agricultural, forestry and aquaculture cooperatives and enterprises.**

Reference Period:

Depends on each indicator:

- Some indicators refer to statistical data at the census date (01/10/1994; 01/7/2001; 01/7/2006) such as land area, livestock, machinery and population.

Date of Data Collection:

Depends on each indicator:

- Some indicators refer to reference period of 12 months before census date such as capital investment and production.

Geographical Scope:

The whole country

3.2.1.3 Conduct, Operations, Data Quality Control

Census Steering Committees were set up at all levels.

- **At the Central level**, the Central Steering Committee will be chaired by the General Director of the GSO and consists of several members being leaders of the Ministry of Planning and Investment, Ministry of Finance, Ministry of Agriculture and Rural Development, Ministry of Fisheries and Government Office. The Central Steering Committee was assisted by a Permanent Task Force including departmental level senior officials and principal experts of the GSO and ministries concerned.

The Central Steering Committee was in charge of preparing the plans, forms, logistic arrangements and providing proper trainings to provincial Steering Committees; supervising and monitoring the progress of the Census; checking upon delivery the final results of each provincial census; preparing brief reports and official reports to be submitted to the Government in line with the stipulated time table. The Permanent Task Force was based in the Department of Agricultural, Forestry and Fisheries Statistics of the GSO.

- **At the Provincial level**, the Census Steering Committees were led by the Chairman or Vice Chairman of the provincial People's Committee; Director of the Provincial Statistical Office act as the Permanent Vice Chairman of the Committee, leaders of the relevant departments served as committee members. The Provincial Steering Committee was supported by a Permanent Task Force that is led by a Deputy Director of the Provincial Statistical Office who is also a member of the Provincial Steering Committee. Other members of the Task Force consist of division managers and experts of the Provincial Statistical Office and representatives from relevant departments having members in the committee. The Provincial Steering Committee was responsible for organizing the census in its respective locality in accordance with the plan approved by the Central Steering Committee.

- **At the District level**, the Census Steering Committee was led by the Chairman or Vice Chairman of the District People's Committee; Director of the District Statistical Office act as the Permanent Vice Chairman of the committee, leaders of the relevant divisions/boards will serve as committee members. The District Steering Committee was supported by a Permanent Task Force including division

managers and experts of the District Statistical Office and representatives from relevant divisions being members in the District Steering Committee.

- **At the Commune level**, the Commune Steering Committee was led by the chairperson or vice chairperson of the Commune People's Committee with statistical, agricultural and aquaculture officers being members, of which the Commune Statistical Officer served as a permanent member.

Summoning Individual Surveyors and Team Leaders

Individual surveyors were responsible for paying an on-site visit to the units to be surveyed to collect necessary information and to accomplish questionnaires.

Team leaders were in charge of monitoring and supervising team members, maintaining a close relation with the local authorities; disseminating and explaining the objectives, significance of the census, identifying specific locations to be surveyed and preparing survey plans. The team leaders are also obliged to supervise the survey, finalize the questionnaires completed by the individual surveyors, and update the survey reports in compliance with the pre-determined deadlines.

Provincial Steering Committees subject to the guidelines of the Central Steering Committee will determine appropriate number of surveyors and team leaders to be employed for each district depending on the number of households to be surveyed, work quota of each individual surveyor in consideration of specific conditions of terrain, traffic, population density, and status of the locality where the survey is conducted (i.e. whether it is situated in a remote, mountainous, isolated, border areas or islands).

Surveyors and team leaders will be selected depending on specific localities to be surveyed with priority given to graduates from high secondary schools, teachers, retired officials, commune officers, village/hamlet heads who have a relatively high level of education, a good knowledge of agriculture, aquaculture and desire to work. In remote, mountainous, isolated, or border areas or islands, border guards and commune policemen may be employed to work as surveyors. In ethnic minority areas, an appropriate number of translators and guides may also be employed depending on the actual needs.

Training of Instructors and Surveyors for the Census

At the Central level:

The Central Steering Committee:

- Holds a national conference to implement the Prime Ministerial Decision and help all members of the Central Steering Committee and Permanent Task Force; Chairperson, Permanent Vice-Chairperson and head of the Permanent Task Force of provincial Steering Committees to better understand the Census Plan.

- Holds 3 training courses in the North, the Centre and the South for provincial Steering Committees and heads of the provincial Permanent Task Forces. Each course will last for 5 days including a one-day field trip to communes.
- Holds 3 training courses in the North, the Centre and the South on data processing for provincial Computing Centres.

At the Provincial level:

Provincial Steering Committees will provide training to key officers of district Steering Committees and other district-level staff to be employed for the survey. The training course will last for 5 days including a one-day field trip to communes and/or hamlets.

At the District level:

District Steering Committees will hold training courses for commune Steering Committees, individual surveyors and team leaders for 4 days including a one-day field trip.

Specific training contents and training methodologies to be adopted at each level will follow a uniform procedure determined by the Central Steering Committee.

Supervising and Monitoring in the Census

Supervision and monitoring of the Census at grass-root level will be carried out by local Steering Committees. Individual supervisors will consist of members of the provincial and district Steering Committees and Permanent Task Forces, and grass-root Steering Committees. Supervision will be maintained on a regular basis throughout the whole process of data collection and data processing at localities.

Survey team leaders were responsible for verifying data from all questionnaires to be collected by surveyors in terms of the contents, computation methodologies, logics, arithmetic, and administrative formality requirement (e.g. signature and seals). Team leaders' verifications were undertaken on a daily basis so that questionnaires will not be piled up. Census Steering Committees at all levels checked on a random basis the entire surveys conducted by survey teams. Depending on specific conditions of each locality, the Census Steering Committees at all levels may dispatch special teams to undertake extraordinary examinations of subordinate surveyors during their data collection to identify and promptly handle problems arising from the survey. In avoiding formalism and easing the burdens of grass root authorities, extraordinary exams by Steering Committees at all levels must be undertaken subject to detailed plans that are closely linked to the contents of the Census.

The extraordinary exams covered the lists, number of questionnaires, methods of raising questions and recording answers by surveyors, logical relationship between columns, lines, indicators, and forms; arithmetic verification, unit of calculation, signature, seals, full names, units to be surveyed, full names of the surveyors, on-site exams etc.

The extraordinary exams may take place in a cross-exams form, from higher-to-lower level exams, regular and extraordinary exams, targeted exams and pre-delivery exams.

Post-Survey of the Census

Post survey was undertaken in sample households. Post survey was aimed at assessing the reliability of the survey data and calculating survey errors to prepare for data processing and data analysis. Post survey consisted of re-interviews and re-verification of some basic indicators recorded in the Questionnaires. Each district/town was treated as a sampling unit. Samples of household of a Post survey were selected by using a three-stage stratification.

Responsibilities of the GSOs, PSOs and DSOs

Responsibilities of survey organization and implementation are assigned to all 3 level statistical system. It is the GSO at the central level followed by the PSOs and DSOs.

1) Responsibilities of the GSO:

- Prepare planning and design survey
- Organize the training course for statisticians of the PSOs
- Carry on a fieldwork supervision and conduct post surveys when necessary
- Conduct a data review of PSOs
- Establish a data processing, make final report and release data

2) Responsibilities of PSOs:

- Detail survey planning
- Survey cost estimation, survey forms print
- Organize the training course for statisticians of DSOs
- Scheme the sample review that is performed by DSOs
- Guide and supervise survey activities of DSOs
- Conduct a data review of DSOs
- Collect all secondary data of other animals such as: Horse, Bee, Dairy Cow, Milk and cocoons from annual report of other institutions
- Conduct post surveys at 3 districts when necessary
- Make tabulation and report to GSO after data checking.

3) Responsibilities of DSOs:

- Make sample allocation (select sample communes, villages) then forward these selections to PSOs for approval
- Conduct the actual fieldwork of gathering data from sample households
- Finalize data estimation at district level

3.2.1.4 Statistical Report

1994 Census of Rural, Agriculture, Forestry and Fishery
2001 Census of Rural, Agriculture, Forestry and Fishery
2006 Census of Rural, Agriculture, Forestry and Fishery

3.2.2 Population Census

3.2.2.1 Overview

The Population Census is conducted every 10 years since 1989 (1989 and 1999).

Objectives

The main objectives of the census are:

1. To provide up-to-date and appropriate information on demographic and related socio-economic characteristics of the population at national and sub-national levels. Such information is needed for social and economic planning and monitoring on central and regional levels in the country;
2. To provide and maintain a time series of demographic data at national and sub-national levels; and
3. To develop and maintain an efficient sampling frame for sample survey.

3.3 Metadata for Each of the Major Surveys

3.3.1 Planted Area Survey

3.3.1.1 Survey Design

Survey: Planted Area Survey

Sampling Design / Statistical Unit / Selection Procedure: This is a complete survey. The survey is conducted 2-3 times a year in all communes.

Main Data Items and Variables for Operational Purposes: Planted area by main crops.

Date of Data Collection: Data refers to planted area of each crop after finishing plantation in each season.

Geographical Scope: The whole country

3.3.2 Yield and Production of Crops Survey

3.3.2.1 Survey Design

Survey: Survey on Yield and Production of Crop

Sampling Frame: Based on the information collected in Census of Agriculture. Please refer to the discussion in Section 3.2.1.2 of this report.

Sampling Design / Statistical Unit / Selection Procedure:

- **For paddy:** The survey covered all districts producing paddy. Samples were selected using three-stage sampling. In each district, sample communes and villages were selected using stratified systematic probability proportional to size (land size, number of commune in a district). Then sample households were selected using stratified systematic random sampling.
- **For other crops:** With a specific crop, all commune in a district is grouped into 3 strata according to yield of crop, high yield, middle yield and low yield. One commune is selected as sample commune. Then in a sample commune 3 villages are chosen, and 10 sample households are picked out from. Sample selection procedure is the same as that applied in the paddy survey.

Main Data Items and Variables for Operational Purposes: Planted area, harvested area, production by plot and by main varieties

Reference Period: Data refers to planted and harvested area and production of each crop in season.

Geographical Scope: The whole country

3.3.3 Livestock Survey

3.3.3.1 Survey Design

Survey: Livestock Survey

Sampling Frame: Based on the information collected in Census of Agriculture. Please refer to the discussion in Section 3.2.1.2 of this report.

Sampling Design / Statistical Unit / Selection Procedure: This type of survey is conducted twice a year (at 1 April and at 1 August). The survey includes two parts:

Survey on Number of Livestock: It is conducted in all districts. The 2-stage sampling is adopted. To select communes and villages, stratification of sampling is applied. All households in the sample village are involved in the survey.

Survey on Production (for survey at 1 August only): 3 or 5 sample villages from the survey on number of livestock are selected. They are considered as the sample of province. Each of them is a representative of one ecological region of province. All households in the village are involved in the survey.

Main Data Items and Variables for Operational Purposes:

Survey on number of livestock:

- Number of livestock: buffalo, cattle, dairy cow, pig, sow
- Number of poultry (duck, swan, goose) and other animals (horse, goat, sheep, bee...)

Survey on production

- Liveweight and number of heads of buffalo slaughtered; liveweight and number of heads of cattle slaughtered; liveweight and number of heads of pig slaughtered; liveweight poultry slaughtered; number of eggs produced

Reference Period:

Indicators on number of livestock are the data at the survey date 1 April and 1 August.

Indicators on production refer to data generated in 12 months before survey date 1 August.

Date of Data Collection: Survey on Number of Livestock is conducted twice a year at 1 April and at 1 August and Survey on Production at 1 August only.

Geographical Scope: The whole country