No.

THE SOCIALIST REPUBLIC OF VIETNAM
THE GENERAL STATISTICS OFFICE OF VIETNAM (GSO)

THE STUDY
ON
THE DEVELOPMENT OF INDUSTRIAL STATISTICS
IN
THE SOCIALIST REPUBLIC OF VIETNAM

FINAL REPORT

AUGUST 2006

JAPAN INTERNATIONAL COOPERATION AGENCY

UNICO INTERNATIONAL CORPORATION
HITACHI RESEARCH INSTITUTE

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Preface

In the response to a request from the Government of the Socialist Republic of Vietnam, the Government of Japan decided to implement “the Study on Development of Industrial Statistics in the Socialist Republic of Vietnam” and entrusted the program to Japan International Cooperation Agency (JICA).

JICA sent a study team led by Mr. Yoji WATANABE of UNICO International Corporation, and members organized by UNICO International Corporation and the Hitachi Research Institute, six times during the period from May 2004 to July 2006.

The team had discussions on the program with the officials concerned of the Government of Vietnam and conducted related field surveys. After returning to Japan, the team conducted further studies and compiled the final results in this report.

I hope this report will contribute to the promotion of the plan and to the enhancement of friendly relations between our two countries.

I wish to express my sincere appreciation to those who participated in the program for their close cooperation throughout the study.

August 2006

Tadashi IZAWA
Vice President
Japan International Cooperation Agency

August 2006

Mr. Tadashi IZAWA
Vice President
Japan International Cooperation Agency
Tokyo, Japan

Dear Mr. Izawa

Letter of Transmittal

We are pleased to submit "Final Report for the Study on the Development of Industrial Statistics in the Socialist Republic of Vietnam." The study was implemented for over two years since May 2004 with primary objective of assisting the Government of Vietnam for development and construction of the "current production statistics survey" and "production indexes," which will be institutionalized for sustainable development. The Monthly Industrial Sample Survey has currently implemented in Vietnam, however, many problems are raised such as survey coverage, data reliability, an international comparability as an industrial statistics survey. Furthermore, the calculation method of production indexes is not compliant with the international standard. For these reasons, the development of new industrial statistics by modern techniques is essential and exigent today. Under the circumstances, the study mainly implemented on the new survey method development of the production statistics, the institution-building in the General Statistics Office of Vietnam (a counterpart organization), and the technology transfer for survey implementation.

This report presents "Basic Development Plan for Current Production Statistics," "Fundamental Designing for the Development of the Index of Industrial Production (IIP)," and various manuals for the survey, of which are prepared based on the results of the two Trial Surveys (conducted three months each) after the basic design period and the Pre-Survey that currently conducting (one year since February 2006). The action plan for institutionalization and its continuous implementation are also proposed in the report. The Government of Vietnam is currently preparing for the institutionalization of new industrial statistics survey as the designated survey from the beginning of the year 2007 under the law. The new industrial statistics survey can easily stand comparison with the production statistics surveys in other countries in its contents such as coverage of industrial sectors and products with international comparability. It is expected to make a great contribution to the economic reform, Doi Moi, in Vietnam. We do hope to fulfill a building up of production statistics and indexes for the

institutionalization and continuous implementation by the further assistances from the Research and Statistics Department of the Ministry of Economy, Trade and Industry takes a key role of the multifaceted assistances from Japan.

We wish to take this opportunity to express our sincere gratitude for the implementation of the study to your Agency, the Ministry of Foreign Affairs and the Ministry of Economy, Trade and Industry. We especially wish to express our deep gratitude to the Vietnam Statistics Assistance Team from the Research and Statistics Department of the Ministry of Economy, Trade and Industry for the close cooperation and assistance extended to us during our investigations and study. We are also deeply grateful to the General Statistics Office of Vietnam and other related agencies, organizations and personnel in Vietnam for their sincere cooperation and assistance for the study.

Very truly yours,

Yoji WATANABE
UNICO International Corporation
Team Leader,
Study Team on Development of
Industrial Statistics in the
Socialist Republic of Vietnam

Abbreviation

DSO	:	District Statistics Office
FDI	:	Foreign Direct Investment
FTP	:	File Transfer Protocol
GDP	:	Gross Domestic Product
GSO	:	General Statistics Office
HCMC	:	Ho Chi Minh City
HS	:	Harmonized Commodity Description and Coding System
IIP	:	Index of Industrial Production
ISIC	:	International Standard Industrial Classification
JICA	:	Japan International Cooperation Agency
MOI	:	Ministry of Industry
MOLISA	:	Ministry of Labour, War Invalids and Social Affairs
MPI	:	Ministry of Planning and Investment
MSMIP	:	Monthly Survey of Major Industrial Products
PMO	:	Prime Minister Office
PSO	:	Province Statistics Office
SSI	:	Institute of Statistical Science
UNDP	:	United Nations Development Programme
UNIDO	:	United Nations Industrial Development Organization
VCPC	:	Vietnamese Central Product Classification
VND	:	Vietnamese Dong
VSIC	:	Vietnam Standard Industrial Classification

Exchange Rate:

The exchange rate applied in this report is: USD1=15,900 VND.

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Executive Summary

Executive Summary

1. Outline of the Development Plan for Current Production Statistics

This report proposes the basic development plan for the "current production statistics survey" and "production indexes," which will be institutionalized for sustainable implementation in the Social Republic of Vietnam. This section presents a general outline of the basic development plan, as follows.

(1) Design Principle

1) The proposed survey is designed to collect numeric data relating to industrial activities on a commodity basis.
2) It makes monthly production activities and trends of Vietnamese industries with sufficient levels of reliability and promptness.
3) It produces current production statistics that are internationally comparable.
4) It tabulates and publishes statistical data at national and local (by administrative unit) levels.
5) It produces production indexes by using modern statistical techniques that comply with applicable international standards.
6) It is designed with a view to reducing survey costs and burdens on surveyed subjects (enterprises/establishments).

(2) Name of the Proposed Survey

The current production statistics survey to be implemented under the development plan is formally called "Monthly Survey of Major Industrial Products (MSMIP)."

(3) Survey Implementation Body

As a supreme organization responsible for management of the new statistical survey system, the MISMIP Supervisory Board will be established. Under the supervision of the board, the GSO's Industry and Construction Statistics Department will serve as a leading agency responsible for implementation of the survey-related activities by using the GSO's network of local organizations including the PSOs and the DSOs.

(4) Survey Object

The primary object of the current production statistics survey is establishments (and enterprises) that manufacture commodities listed in the questionnaire used for the survey.

(5) Size of Survey

Number of industries: 75 (with the combined representation rate exceeding 90% of total industry output in Vietnam, of which 8 sectors are in

mining, 64 sectors are in manufacturing, and 3 sectors are in electricity/gas/water)

Number of commodities: 630 (with the combined representation rate exceeding 80% of the subject industry)

Number of establishments: 4,000 - 4,500 (Establishments of enterprises. With the combined representation rate exceeding 75% of the industry's total output)

Note that household industries may be added to surveyed establishments to meet the local needs as the result of further analysis on the Pre-survey.

(6) Survey Items

The survey covers six items, namely quantity of production, quantity of shipments, quantity of internal consumption, quantity of ending inventory, value of shipments (based on invoice), and quantity of projected monthly production.

(7) Start of the Survey

The current production statistics survey is scheduled to start in February 2007 (covering January) as the government's designated (official) survey.

(8) Survey Cycle

Deadline for submission by surveyed establishments:	12th of each month
Submission from the PSO to the GSO:	18th of each month
Dissemination of preliminary results:	25th of each month

(9) Dissemination Policy

1) Dissemination is made promptly and timely unless statistical reliability is affected.
2) Dissemination is made in such manner to ensure fair treatment of all users.
3) Dissemination is made on a preset date.
4) Dissemination contains analysis and explanation that is appropriate or required for convenience of users.
5) Dissemination contains explanation on statistical techniques employed, including the survey and data processing methods.
6) Dissemination is accompanied by organized user service, such as responding to questions.

(10) Dissemination Contents

1) Tabulated data on production, shipment, inventory, and projected production by product (actual number and year-to-year basis).
2) Production index by product (value-added weight, production value weight), shipment index, inventory index, and projected production index.

3) Outline of trend report
Utilizing the national-level tabulated data but it is necessary to discuss to disseminate data by regional basis and by enterprise type in the future.

(11) Dissemination Method

1) Current production statistics on a national level and indexes, both preliminary and finial results, are published on the GSO's Web site and by printed reports.
2) National-level data, both preliminary and final results, are published in Vietnamese and English.
3) The GSO is responsible for dissemination of national and regional statistics (eight economic divisions) and the PSO publishes provincial and municipal statistics.

The following table compares the proposed MSMIP survey and the ongoing Monthly Industrial Sample Survey conducted by the GSO, and their major differences.

Table 1 Comparison of the Proposed Survey System "MSMIP" and the Present Survey System "Monthly Industrial Sample Survey"

	The proposed survey system "MSMIP"	The ongoing survey system for monthly industrial statistics	Major difference
Major objectives	◆ To understand the current state of industrial production by collecting monthly production data on a commodity basis. ◆ To develop production indices with international compatibility	◆ To understand industry trends by collecting production data on 34 key commodities, including the value of production. ◆ The IIP means the ratio of increase/decrease to the previous year's data.	◆ The new system emphasizes variation of production quantity of a large number of key commodities. ◆ The present system emphasizes the value of production with view to grasping the progress of economic development and the operating status of enterprises.
Target users	◆ Industrial and trade policymakers, manufacturers, consumers, exporters and importers, market researchers, foreign investment organizations, international economics researchers	◆ Organizations supervising central and local state enterprises or FDI enterprises, and central and local government offices	◆ The major user of the present survey system is a group of technocrats responsible for management of industrial production under a centrally planned economy. ◆ The new system will be used by industrial policymakers, researchers and decision

	The proposed survey system "MSMIP"	The ongoing survey system for monthly industrial statistics	Major difference
			makers who analyze industrial production trends under the transition period to a market economy, and representatives from private sectors.
Questionnaire	◆ The questionnaire consists of a single sheet designed for each of the surveyed sectors, which prints the name of commodities included in each type of industry.	◆ The questionnaire consists of a single sheet designed according to the type of enterprise. The respondent to enter product information freely.	◆ The present questionnaire primarily contains questions on shipment value of enterprise and asks the respondent to enter information freely, resulting in variation of the degree of detail between respondents.
Survey items	1. Items relating to products (1) Production quantity (2) Shipment quantity (3) Beginning inventory quantity (4) Internal consumption quantity (5) Shipment value (6) Projected production quantity	1. Enterprise name 2. Major business activities (1) Form of ownership (2) The following data for the current month, an accumulated total of the current year (from January to the current month), and the ensuing month (estimate): a. Production (in 1994 constant price) (million dongs) b. Total turnover (million dongs) c. Turnover by industry (million dongs) d. Consumption tax (million dongs) e. List of manufactured items (code, unit, production quantity) f. Operating status of enterprises in the surveyed month	◆ The new system will focus on production quantity by commodity as well as beginning inventory. ◆ The new system will collect data of shipment value of each product will be collected.
Comparison of the survey frame and the selection method	◆ The selection process starts with industrial sectors, in the order of	◆ All of state and FDI enterprises will be surveyed.	◆ The new system will select enterprises that produce major

	The proposed survey system "MSMIP"	The ongoing survey system for monthly industrial statistics	Major difference
	value added. ◆ For each industrial sector, major commodities will be selected. ◆ For each commodity, enterprises will be selected. ◆ In the final stage, around 7,000 enterprises will be selected for the survey.	◆ As for non-state enterprises, the sample survey is carried out (15% on the average). ◆ The total number of enterprises surveyed, including state, FDI and non-state enterprises, is approximately 5,200 (The sample survey covers 1,880 out of 12,535 non-state enterprises the mining and manufacturing sector.)	commodities that are selected for the survey. ◆ The survey frame for the present system consists of state and FDI enterprises (100%) and non-state enterprises (sampled, 15% coverage). ◆ Sample of Household will be selected by GSO's own decision.
Survey objectives	◆ Establishment base	◆ Enterprise base	◆ To cover production sites
Comparison of survey organizations and methods	◆ Unified under the organization consisting of GDO, PSOs and DSOs.	◆ State and FDI enterprises are surveyed by the PSOs according to the reporting system and the results are reported to the GSO. ◆ Non-state enterprises selected by sampling are surveyed by the PSO/DSO team, with the average sampling rate of 15%.	◆ The new system conducts the production quantity survey by commodity under a unified organization in order to ensure that target enterprises are surveyed accurately in terms of sector and commodity.
Tabulation, analysis and dissemination methods	◆ Questionnaires collected are checked at each DSO for any omission or error and are then sent to the PSO, where questionnaires collected from all DSOs under the PSO are assorted. After data input, the data is sent to the GSO by the electronic file format. ◆ The GSO rechecks questionnaires sent from the PSOs and tabulates the results, which are analyzed and	◆ Questionnaires collected from state and FDI enterprises are tabulated at each PSO and the results are sent to the GSO. ◆ Questionnaires completed by non-state enterprises are collected by the DSOs. After preliminary check, they are tabulated to estimate the total figures, which are then sent to the PSO. After the summation and tabulation at each PSO, final data are sent to the	◆ Under the new system, data obtained from completed questionnaires are sent to the GSO in two steps (DSO and PSO), which streamline preliminary reporting and prevent any error or undue manipulation from occurring in the collection process.

	The proposed survey system "MSMIP"	The ongoing survey system for monthly industrial statistics	Major difference
	published as a preliminary report.	GSO.	
Commodity classification used for the summary table for survey results	◆ Approximately 630 commodities (final goal) according to the international classification standard.	◆ 34 major commodities which source of classification is unknown.	◆ The new system relies on the international classification standard to ensure international comparison.
Representation by type of enterprise and region	◆ While almost all of state and FDI enterprises will be covered by the survey, some non-state enterprises, small enterprises in particular, will not covered as their share of total production is very small. ◆ As for geographical representation, further study and examination is required.	◆ All of state and FDI enterprises are covered. ◆ Non-state enterprises are sampled (15%) uniformly in terms of enterprise size and region, but a relatively small sample size appears to cause a significant error between the estimated and actual figures in some cases.	◆ Examination should be made as to how current production statistics (by commodity) and indices can be used at ministerial levels.
Use of statistics at local level	◆ As the proposed system primarily aims to produce production quantity statistics by commodity covering the entire country, the need for tabulation on a regional basis will be discussed in the future. ◆ Examination should be made as to possibility of region-based production index.	◆ Industrial production statistics are being used by ministries and local governments for administrative purposes. ◆ Production statistics covering 34 commodities are tabulated on a provincial basis.	◆ Possible use of the summary table under the new system will be examined further in the future.

2. Outline of the Preliminary Development Plan for Production Indexes

(1) Index Calculation Method

The Laspeyres formula, internationally recognized, is used for calculation of production indexes in Vietnam.

Laspeyres production index: $\frac{\sum P_0 Q_t}{\sum P_0 Q_0} \times 100$

(2) Index items

Four basic indicators are selected as indexed items, namely production, shipment, inventory, and project production indexes.

Table 2 Items to Calculate Indexes

Index Items	Purpose	Representation	Weight
Production Index (Value-added Weight)	Representation of production or supply trend	VSIC 1 and 2 digit	Value added
Production Index (Value of production Weight)	Representation of production trends with comparison to shipment and inventory index	VSIC 1 and 2 digit	Value of production
Shipment Index	Representation of demand for products	VSIC 1 and 2 digit	Turnover
Inventory Index	Representation of inventory level	VSIC 1 and 2 digit	Inventory Value
Projected Production Index	Representation of production in the next reference month	VSIC 1 and 2 digit	Value added

(3) Weight Calculation

1) Weight at Industry Level

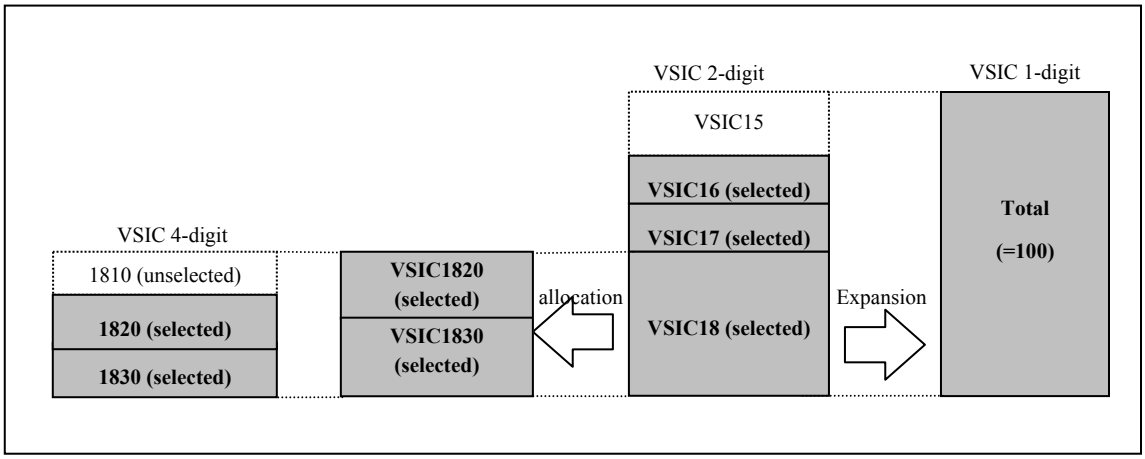
The "expansion" method is used to calculate a weighted share of selected industries so that they can represent the share of unselected industries. The weight at VSIC 4-digit level is determined by allocating the expanded weight at VSIC 2-digit level to the VSIC 4-digit level in order to harness the expanded weight at the VSIC 4-digit level.

The expansion from VSIC 2-digit level to the VSIC 1-digit level, and the allocation of expanded weight into the VSIC 4-digit level is performed by the following equation. The conceptual view is shown in Figure 1.

$$\text{Expanded Weight of Selected Industry (VSIC 2)} = \frac{\text{Weight for the Industry (VSIC 1)}}{\text{Sum of Weight for the Selected Industry (VSIC 2)}} \times \text{Weight for the Selected Industry (VSIC 2)}$$

$$\text{Weight of Selected Industry (VSIC 4)} = \frac{\text{Expanded Weight for the Industry (VSIC 2)}}{\text{Sum of Weight for the Selected Industry (VSIC 4)}} \times \text{Weight for the Selected Industry (VSIC 4)}$$

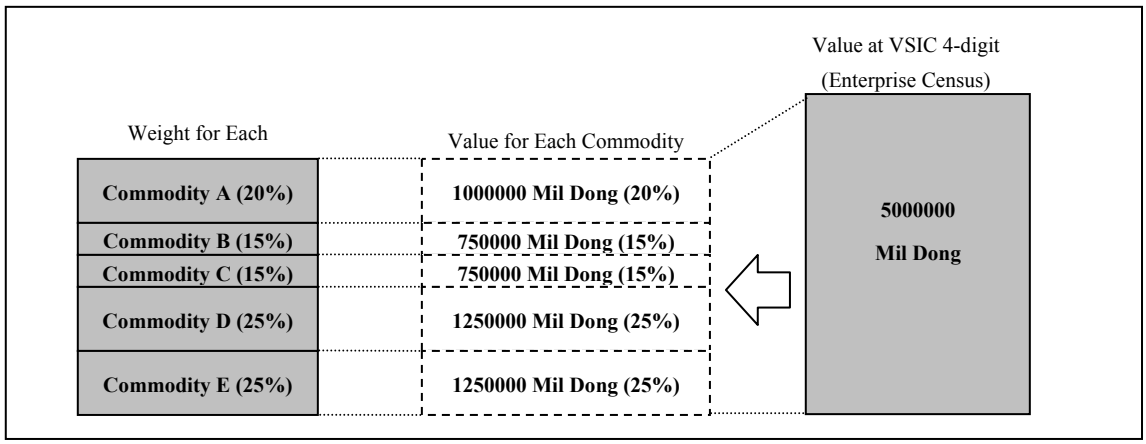
Figure 1 Concept of Expansion



2) Weight at Product Level

The process involves: (1) estimation of price by dividing the value of shipments by the quantity of shipments; (2) estimation of values of production and inventory by multiplying the price to the quantity of production and the quantity of inventory; and (3) application of the product share to the respective VSIC 4-digit data from the Enterprise Census.

Figure 2 Weight Calculation for Commodity



3. Outline of Action Plans

This report contains five action plans that are to be promptly put into action by the GSO's Industry and Construction Statistics Department for institutionalization of the MSMIP. They are outlined as follows.

(1) Appointment of the Team Organization Plan for the institutionalization of MSMIP

Within the GSO's Industry and Construction Statistics Department, a team in charge of startup of the MSMIP will be formally appointed and the preparatory work for the MSMIP will be incorporated into the GSO's ordinary business. The Preparation Team for MSMIP Institutionalization, as tentatively named, will be organized by five members, namely a team leader and four members in charge of "procedure and budgeting," "survey planning and design," "data configuration and system development," and "local promotion and training." Then, specific time and budget will be formally allocated to the team for implementation of the preparatory work. Upon institutionalization of the MSMIP (started from 2007), the team will be transformed to the secretariat of the MSMIP Supervisory board.

(2) Statistical Reliance Improvement Support Plan

To ensure reliability of the new survey for current production statistics, the "Statistical Reliance Improvement Support Plan" will be formulated by the Preparation Team for MSMIP Institutionalization, followed by prompt implementation by the GSO. The plan essentially sets forth an implementation guideline for the basic plan proposed in this report and contains the following support programs to supplement the basic plan: ① a program to develop survey plans and designs; ② a program to review and revise survey designs; and ③ an educational and promotional program.

(3) Action Plan to develop the "Master Sample" and the MSMIP Establishment List

Types of establishments contained in the latest list of companies will be rechecked on the basis of the enterprise census survey conducted in March 2005 and will be established as the GSO master samples. The MSMIP establishment list will be made on the basis of the master samples. In this case, data on household enterprises will be treated separately, but they will be added to the MSMIP establishment list by using information in the population group list for the establishment census (to be compiled in the near future) as reference.

(4) Organization Plan for the Household Enterprise Data Analysis Team

Within the GSO Industry and Construction Statistics Department, a team will be organized to thoroughly analyze household data obtained during the pre-survey. In consideration of the department's manpower and resources, however, it is not realistic to organize an ad-hoc team for implementation of this plan. Instead, the team will be led by members of the Preparation Team for MSMIP Institutionalization, with assistance of the Trade, Services, Prices Statistics Department as required. The team will analyze the survey results and decide on standards and rules for treating household industries (e.g., the form of questionnaire compared to other enterprise types, presence of problems relating to data processing and tabulation), which will then be reflected in the official survey (in 2007 and afterwards). According to circumstances, the team may have to consider the possibility of conducting a survey of small enterprises and micro-enterprises, including households, as separated from the MSMIP.

(5) Plan for Education and Training Planning for Enumerators and Statistical Analysts

This proposal consists of the formulation of an education and training plan for enumerators in areas that will be covered by the pre-survey and the official survey. The plan will be implemented under the leadership of the GSO's Industry and Construction Statistics Department. In the planning process, the development of the curriculum and selection of instructors will be made by utilizing expertise and experience of staff of the Industry and Construction Statistics Department and PSOs in Hanoi and Ho Chi Minh. Also, the training of statistical analysts will be carried out by using overseas training programs as far as possible.

4. Composition of the Report

This Final Report consists of two parts, "Main Report" and "Executive Summary". "Main Report" is further divided into two parts. Part 1 (from Introduction to Chapter 4) discusses main points of survey results including technology transfer activities. Part 2 (from Chapter 5 through Chapter 7) presents "Preliminary Development Plan for Current Production Statistics," "Preliminary Development Plan for Industrial Production Indexes," and "Action Plans for Implementation of the Official Survey," all of which are proposed on the basis of field surveys and two trial surveys (three months each) conducted as part of the study.

The preliminary plans contain some elements that have been jointly developed with the GSO in the course of the trial surveys and have been already launched. To formalize the proposed current production statistics survey in Vietnam, procedures to adopt it as the government's official statistics, which will be taken after the completion of the present development study, is very important. For this reason, this report is prepared with care to include information that is useful or required for such procedures. Finally, "Appendices" of "Main Report" contains the series of manuals - "Enumerator Manual," "Index Development and Dissemination Technique Manual" and "System Operation Manual," together with "Industry and Commodity Classification List" that has been made from data obtained up to the second stage of trial survey, and "Industry Sector-Based Questionnaires."

Part I

Chapter 1 Introduction

Chapter 1 Introduction

This is the Final Report for "A Study on the Development of Industrial Statistics in the Socialist Republic of Vietnam." The Study has been conducted since May 2004, in cooperation of the General Statistics Office of Vietnam (hereinafter referred to as "GSO") as a counterpart over two years. This Draft Final Report was prepared as a draft of the Final Report that is scheduled to submit in the beginning of May 2006, mainly based on the study results and a basic development plan for a current survey of industrial activities and industrial production indices in Vietnam.

1.1 Background of the Study

Today, industrial statistics covering industrial production, shipment and inventory, and other related areas are increasingly recognized as essential economic data to understand the current state of business activities, not only for government agencies but also for private businesses, investors, scholars and many other parties. To allow the effective use of statistical data by these users, reliability and promptness are the most important requirements. At the same time, the statistical data must be internationally comparable for users. This is no exception in Vietnam; to achieve the country's healthy economic expansion, the development of industrial statistics that are based on modern techniques and comply with international standards is one of the national priorities for the statistical development in the country.

To meet these objectives, the Government of Vietnam (hereinafter referred to as "GOV") requested the Government of Japan (hereinafter referred to as "GOJ") to conduct the Study on the Development of Industrial Statistics in Vietnam in September 2003. In response, the Japan International Cooperation Agency (JICA), the official agency responsible for the implementation of technical assistance programs of the GOJ, sent the Preparatory Study Team in December 2003. As a result of discussion with representatives of the GSO and other government agencies, the JICA and the GSO agreed to implement the proposed study, covering the development of current production statistics and industrial production indices, and it was commenced since the end of May 2004 over two years.

1.2 Outline of the Study

1.2.1 Objectives of the Study

The Study is implemented in accordance with the Scope of Work and the Minutes of Meeting, which were agreed between the JICA Preparatory Study Team and the GSO on December 16, 2003. The objectives of the Study are summarized as follows;

(1) To develop monthly current production statistics with high levels of reliability and promptness, which contribute to economic and industrial policy making as well as

corporate management in Vietnam, together with a set of statistical indices that are produced on the basis of such statistics, including a monthly indices of industrial production ;

(2) To make the current production statistics and indices produced and published on a continuous basis under a formal system;

(3) To transfer knowledge and expertise on the statistical survey to the Vietnam counterpart, through the implementation of the present study; and

(4) To encourage future users of statistics to understand the utility and method relating to current production statistics and indices.

Furthermore, formalization and continuous implementation of current production statistics and indices developed under the Study are considered to be its strategic goal. To develop "production statistics and indices" with high levels of reliability and promptness, the development of "the list of population" and "primary statistics" is the prerequisite. The major objective of the Study is to establish a system to develop primary statistics, while the development of production indices and the establishment of the publication system will take some time after the end of the Study as they need to be developed to sustainable systems on the basis of proposals made under the Study. For this purpose, this report proposes a preliminary plan for the construction of the statistical system from the development of primary statistics to the establishment of the publication system, together with action plans for the Vietnam side to implement for the purpose of achieving the goals. In addition, the JICA plans to dispatch a long-term expert after the study in order to support continuously on the survey expansion to local areas, the data indexation, the establishment of dissemination techniques, and so on.

1.2.2 Scope of the Study

To accomplish the above objectives, the study was conducted in five phases, each of which consisted of the following activities.

Outline of Activity Phases

1)	Basic Study:	To collect and analyze information required for development of current production statistics and indices.
2)	Basic Design:	To design the basic system of industrial statistics and indices that are suitable for local conditions of Vietnam, and to design the details of Trial Surveys (questionnaire , selection of sectors and commodities, method, etc.) to be conducted for verification and other purposes.
3)	Trial Survey 1:	To plan and support the 1st trial survey in Hanoi and Ho Chi Minh for evaluation of basic system design.
4)	Development of Statistical	To develop industrial production indicesand to provide

	Indices:	support for development of a statistical system that will be required in the near future.
5)	Trial Survey 2 and formulation of a development plan:	To plan a national-scale current production statistics survey using the developed statistical system, to implement and evaluate it as a trial survey, and to formulate a development plan for the statistical system.

In addition, the present study includes technology transfer (transfer of expertise and experience), through on-the-job training and seminars/workshops, and activities to promote the understanding of statistical users.

1.2.3 Survey Schedule

1.2.3.1 Overall schedule

The present study is conducted for twenty seven months from the end of May 2004 to the end of August 2006. Each of the three study years consists of the following activities (those defined in the development process).

First year (May - December 2004):	Basic Study (Phase 1); Basic Design (Phase 2); and Implementation of Trial Survey 1 (Phase 3)
Second year (January - December 2005):	Implementation of Trial Survey 1 (Phase 3); Analysis of results of Trial Survey 1 (Phase 3); Design of Trial Survey 2 (Phase 4) Development of statistical indices (Phase 4); and Implementation of Trial Survey 2 (Phase 5)
Third year (January - August 2006):	Implementation of Trial Survey 2 (Phase 5); analysis on interim results of Pre-Survey (Phase 6); formulation of a formal development plan; and preparation and presentation of a final report

1.2.3.2 Implementation Schedule of Trial Surveys and Pre-Survey

As part of the Study, two Trial Surveys were conducted in 2004 and 2005, for the three-month period between November through January each year (the survey period was between October and December). The primary objective of Trial Surveys is to verify the proposed development plan in the following respects: ① whether the survey method and materials such as questionnaires and enumerator manuals are suitable for local conditions in Vietnam; ② whether necessary data such as the questionnaire collection rate and the entry rate are available;

and ③ whether work standards for examination, input and tabulation are appropriate. Also, they served as a means to promote new current production statistics in the country.

The GSO currently implements the Pre-Survey based on the results of the Trial-Surveys. The Pre-Survey was not included in the original plan. It, however, is implemented to maintain the continuity from the Trial Surveys to the Official Survey, and the further analysis on the effects of the survey targets expansion (areas, industry sectors, and establishments).

1.3 Team Formation for the Study

1.3.1 JICA Study Team

The JICA study team has the following members;

Mr. Yoji WATANABE	Team Leader	UNICO International Corp.
Mr. Mitsuyasu YANAGISAWA	Plan/Design of Execution	Hitachi Research Institute
(Mr. Toshio SHIGEMATSU for the 1st Field Survey only)		
Mr. Shingo MIYAZAKI	Plan/Design of Indices	Hitachi Research Institute
Mr. Yuichi OTANI	Industry/Products Analysis	UNICO International Corp.
Mr. Tatsumi ARAGAKI	System Development	UNICO International Corp.

In addition, the Vietnam Statistics Support Team was organized within the Research and Statistics Department of the Ministry of Economy and Industry (METI) to provide support for the Study, including technical advice during the Study, technical guidance for the Vietnamese counterpart, and provision of information relating to the development of the basic plan.

1.3.2 Steering Committee and Counterpart Team

(1) Steering Committee Members

The GSO has decided to establish a steering committee and a working group engaged in operation and management of the Study, which was noticed as the Decision of the Director General dated August 20, 2004. According to the Decision, the steering committee's role is to provide support for development of the study implementation plan, examine the progress of work on a periodical basis, and serve as a coordinating body for related organizations. The steering committee consists of the following members.

Mr. Le Manh Hung	Director General of GSO	Chairman of SC
Mr. Vu Van Tuan	Director of ICSD (GSO)	Deputy Chairman of SC
Mr. Nguyen Anh Tuan	Deputy Director of GSO	Member
Mr. Tran Dong Phong	Deputy Director of MPI	Member
Mr. Huynh Dac Thang	Deputy Director of MOI	Member

(2) Counterpart Team Member

The GSO has appointed a counterpart team ("Working Group") of the Study by the Decision of the Director General. The team members are as follows;

Mr. Pham Dinh Thuy	Deputy Director of ICSD (GSO)	Group Leader
Mr. Pham Huy Tu	Director of IT Center (GSO)	Member
Mr. Le Thuy Trung	Expert of Industrial Dept. (MPI)	Member
Mr. Mr. Mai Van Canh	Expert pf Planning Dept. (MOI)	Member
Mrs. Le Thi Thuan	Senior Expert of ICSD (GSO)	Member
Mrs. Pham Thi Hong Trang	Senior Expert of ICSD (GSO)	Member
Mrs. Ho Thanh	Senior Expert of ICSD (GSO)	Member
Mrs. Duong Thanh Hang	Senior Expert of ICSD (GSO)	Member
Mr. Duong Tri Thang	Senior Expert of ICSD (GSO)	Member

Note: ISID is an abbreviation title of the Industry and Construction Statistics Department of GSO.

Chapter 2 Current State of Development of Current Production Statistics in Vietnam and Major Issues

Chapter 2 Current State of Development of Current Production Statistics in Vietnam and Major Issues

2.1 Present State of the Statistical System in Vietnam

2.1.1 General Profiles of General Statistics Office (GSO)

2.1.1.1 Organization of GSO

National statistics surveys in Vietnam are centrally managed by the General Statistics Office (GSO). The predecessor of the GSO was founded as a statistical section of the Ministry of National Economy on May 6, 1946 and then was reorganized several times after. In September 1961, the Central Statistical Bureau was established within the National Planning Board as the nuclei of the present GSO. Today, the GSO has further evolved from the organization and is positioned as an independent government agency under supervision of the cabinet.

At present, the GSO is headquartered in Hanoi and is centrally organized under the three-tier structure consisting of Provincial Statistical Offices (PSOs) that cover provinces and District Statistical Offices (DSOs) that are established in municipalities and supervised by the PSO. In addition, five semi-independent organizations such as the Statistical Information Center are under supervision of the GSO Director General. Generally, the GSO means the entire organization consisting of the PSOs, the DSOs and the five organizations. As of the end of 2005, there are 64 PSOs and 659 DSOs throughout the country, and the GSO employs approximately 5,000 persons. The organization of the GSO headquarters and its duties are shown below (Figure 2-1).

(1) Organization of the GSO headquarters

- National Accounts Department
- Statistical Methodology Department
- Integral Statistics Department
- Industry and Constructional Statistics Department
- Agricultural, Forestry & Fishing Statistics Department
- Trade, Services & Prices Statistics Department
- Population & Labour Statistics Department
- Social and Environmental Statistics Department
- International Cooperation Department
- Personnel Department
- Planning and Financial Department
- Inspection Department
- Administrative and General Affairs Department

(2) Duties of the GSO headquarters

a) To draw out draft laws and regulations relating to statistics and direct legislation procedures.
b) To submit to the Government or the Prime Minister strategies, plans, long-term plan on statistics as well as important projects.
c) To announce the regulations, standards classification on statistics.
d) To conduct surveys, analysis and dissemination of socioeconomic statistics according to government guidelines.
e) To lead cooperation and coordination with government organizations relating to statistics
f) To promote improvement and international cooperation of statistical techniques.
g) To audit ministries and government organizations engaged in statistical service
h) To management budgets relating to operation and maintenance of the statistical system.

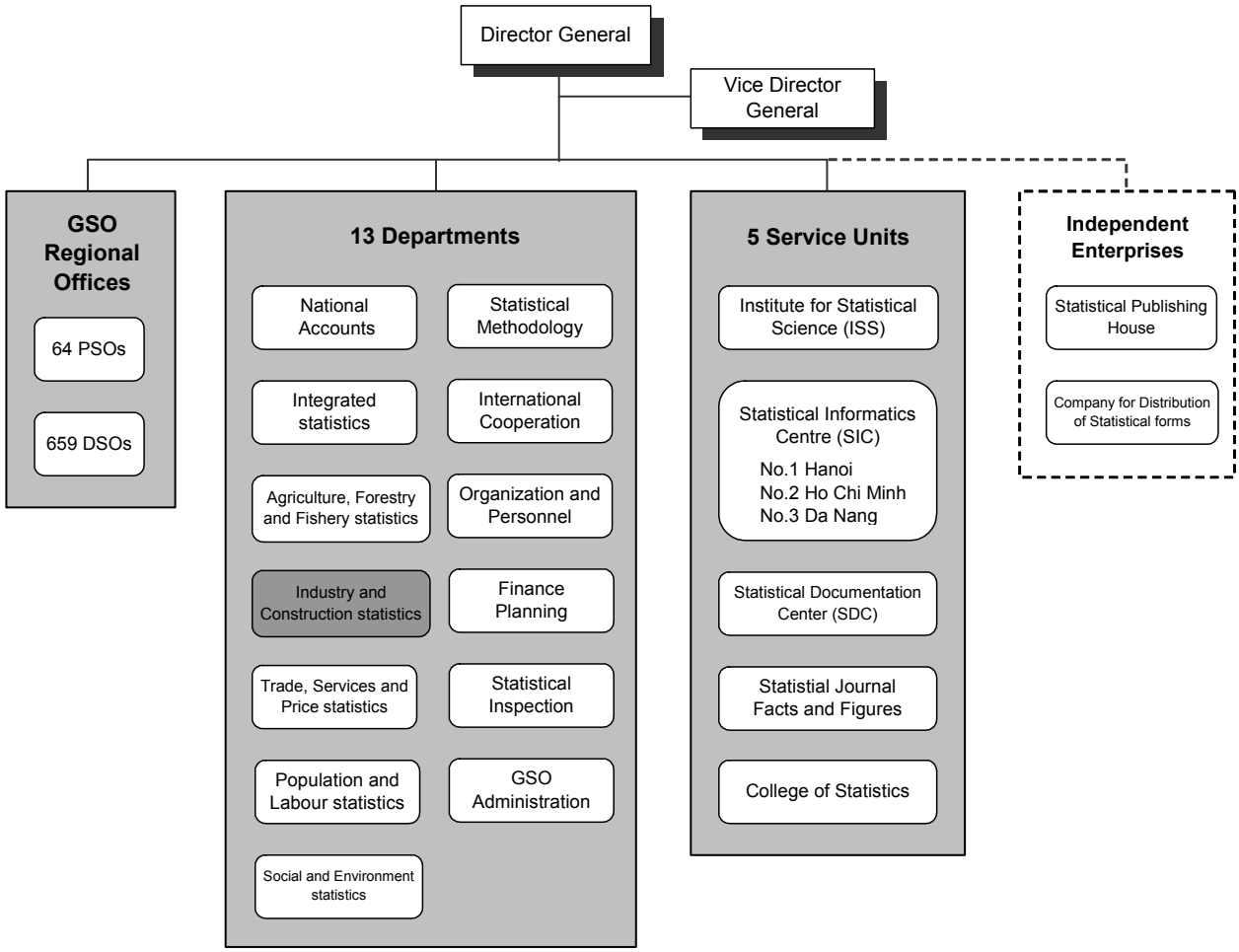
The Industry and Construction Statistics Department become serving as the counterpart of the present study among the departments of GSO. The organizational chart of the department is shown below.

(3) General profiles of the Industrial and Constructional Statistics Department

The department is responsible for industrial statistics. On January 1, 2004, when constructional statistics were transferred from the Construction, Transportation and Telecommunication Statistics Department to the Industrial Statistics Department, the latter was renamed as Industry and Constructional Statistics Department, which is responsible for statistics relating to the industrial sector[*1] and the construction sector. At present, the department consists of 17 staff members led by Director Vu Van Tuan and manages three statistics in the industrial sector (annual company statistics, and monthly and annual industrial sample surveys) and the construction trend survey. Also, it provides assistance for the Commercial and Prices Statistics Department in the economic census covering the mining and manufacturing sectors (every five years) and quarterly business surveys. It should be noted, however, that the GSO's departments including the Industry and Constructional Statistics Department are responsible for planning, technical guidance, analysis and dissemination of statistics in their responsible fields, while surveys are conducted by its local organizations, namely PSOs and DSOs. Staff of the Industry and Constructional Statistics Department includes experts in statistical survey planning and analysis and personnel with system development capability.

[*1] Vietnam's industry classification is based on VSIC that conforms to ISIC, and VSIC two-digit classification treats three areas of mining (C), manufacturing (D), and electricity/gas/water supply (E) as industrial statistics.

Figure 2-1 GSO Organization Chart



2.1.1.2 Regional Network of GSO

(1) PSOs and DSOs

The PSOs are established in of 64 provinces and special cities and function as the GSO's provincial offices. Under each PSO, there are 659 DSOs throughout the country[*2]. They are responsible for all field activities for statistical surveys implemented by the GSO. Statistics conducted by the PSOs and the DSO, together with their activities, are planned by respective departments of the GSO headquarter in Hanoi and the operating budget of each office (including costs relating to field surveys and employees) is compiled and managed by the GSO headquarters.

The number of staff at each PSO is basically determined according to the number of DSOs in the respective districts (as well as the number of communes and wards under each district), rather than the size of the survey subject, such as local population, the number of enterprises

[*2] Most of them have been established as a result of merger between statistical departments of local people's committees and the GSO.

(including households). For instance, Thanh Hoa Province that was covered by Trial Survey 2 under the present study has 27 districts, the largest number in the country, and thus there are 27 DSOs. They are large in number than the PSOs in Hanoi and Ho Chi Minh City, so that Thanh Hoa PSO has the largest number of employees. Staff members of the PSOs and DSOs effectively serve as enumerators. Most PSO have the same structure as of GSO headquarter, which conduct statistical surveys under the direction of each department of the GSO headquarter[*3].

(2) Cooperation with People's Committees

In local administrations in Vietnam, a people's committee is established in each province, city under central authority, district and town as the executive organ for decisions made by the People's Council. Each people's committee has departments corresponding to the organization of the central government agencies, such as the Ministry of Industry, the Ministry of Commerce, and the MPI, and these departments carry out the actual tasks of the local administration. Thus, the departmental structure at the central level is replaced at the local level. As for statistics administration, also, as in other government agencies, the PSOs and the DSOs are established to support the People's Committee's tasks. The results of the regular survey carried out by the GSO, the PSOs and the DSOs are all reported to the People's Committee, which was then the largest statistical user at all the administrative levels.

In many cases, the PSO is located in a different building to that of the People's Committee, and its budget is entirely provided by the GSO. Thus, the PSO has a certain degree of independence from the People's Committee. By contrast, DSOs use the same building as their People's Committee in most of districts, and the personnel expenses of the enumerator in the commune and ward and its subordinate organizations are supplied by the People's Committee. Accordingly, the DSOs tend to have a stronger relation with their respective People's Committee. However, both PSO and DSO directors are appointed by GSO Director General and PSO director, respectively, as supervising organizations.

Current production statistics proposed under the Study are assumed to be used by broad sectors including government organizations, but in consideration of the traditional relationship with the People's Committee, it is important to establish the statistical survey plan by taking into account the actual needs of the committees that would be major users at both central and local levels

2.1.1.3 GSO Annual Budget

Government offices in Vietnam prepare draft budgets annually and submit them to the Ministry of Finance in or around mid-July. Then after examination by the Ministry of Finance

[*3] For instance, industrial statistics surveys are conducted by the PSOs and DSOs under the direction of the Industrial and Constructional Statistics Department.

and approval by the National Assembly, the final budget for the following year is approved at the end of November. The GSO also compiles budget requests from departments by the end of June and submits a draft budget to the Ministry of Finance in mid-July. Its annual budget on a disbursement basis was 120 billion dongs in 2003, 149 billion dongs in 2004, and 170 billion dongs in 2005. The budget has been steadily increasing mainly due to the increase in labor and other indirect costs, rather than the increase in statistical survey-related cost. The annual budget is roughly divided into fixed expenditures, such as labor costs[*4], and variable expenditures, such as survey and facility/equipment costs. In 2005, the budget for fixed expenditure was about 100 billion dongs (mostly labor cost) and that for variable expenditures, about 70 billion dongs. Of the total variable expenditure, 36 billion dongs were allotted to survey costs and 34 billion dongs to facility/equipment costs. Also, 300 - 400 million dongs were earmarked as reserves. Request for survey cost is made by each department that is in charge of statistical surveys - accompanying an implementation plan and a budget statement - to the financial department. Then after the annual budget is approved, it is disbursed to each PSO subject to an internal approval at the GSO.

The GSO's budget for the year 2006 was already approved by the National Assembly, and its annual budget is 310 billion dong, doubled on year-on-year basis. One of the main reasons is that two surveys, "Census of Agriculture & Rural" and "Living Standard Survey" are planned to implement in 2006. In particularly, the former survey is decided its implementation in haste as a large-scale survey by the Prime Minister's decree on July 27th of 2005. This survey is far exceeding the GSO's annual survey costs by itself. As a result, 140 billion dong will be earmarked only for the survey costs in 2006.

It is said that the main surveys held jurisdiction over the Industry and Construction Statistics Department of the GSO are "Enterprise Census" in every March and "Monthly Industrial Sample Survey". For example, the annual budgets of the department were 4.6 billion dong for the Enterprise Census Survey and 3.2 billion dong for the Monthly Industrial Sample Survey out of 10 billion dongs for the total survey budget in 2006 (25% increased on year-on-year basis). In the case of the Monthly Industrial Sample Survey, the questionnaire collection cost for the state enterprises and foreign enterprises rarely occurred because of the Reporting System, but it is used for the questionnaire collection from the households.

2.1.2 Legal Institution for Statistics

(1) Government policy for statistics development

The government's basic policy for development of statistics in Vietnam is set forth in "Direction of Statistics Development in Vietnam Toward 2010" that was issued in the

[*4] GSO's labor cost is paid to staffs of GSO headquarter in Hanoi and regional PSOs and DSOs. Other labor cost for enumerators belonging to communes and wards is paid by regional People's Committees.

premiere's resolution (No.141/2001/QD-TTg) dated October 21, 2002. In this resolution, strategic directions of development of the statistical project toward 2010 are stated as follows.

1) Improvement and standardization of statistics in terms of promptness, content, form, and method for compilation
   (a) Dissemination of the statistical project to meet the needs of the party, the state, and other statistical users; the establishment of a transparent and comprehensive mechanism, and the improvement of the GSO's capacity to ensure provision of statistical information to every user
   (b) Reaffirmation the significance of periodical socioeconomic reports and monthly reports relating to socioeconomic development plans and treat as formal documents relating to government meetings

2) Improvement of statistical techniques by introducing modern techniques conforming to international standards
   (a) Development of internationally comparable statistical standards and indices
   (b) Expansion of application of the national accounting system (SNA) and reconstruction of statistical methods
   (c) Standardization of classifications according to international standards and local conditions peculiar to Vietnam

3) Improvement of the statistical data collection system
   (a) Establishment of the registration system for collection of basic information
   (b) Improvement of the company reporting system
   (c) Promotion of linkage between the national statistical system and departmental statistics

In June 2003, the Statistical Law was adopted by the National Assembly as the legal authority of statistical projects and was enacted on January 1, 2004[*5]. This law aims to clarify the economic situation, facilitate the drawing up of policies, increase data accuracy, and meet the statistical needs of organizations and individuals. The law is composed of the following eight chapters:

Chapter 1. General Rule
Chapter 2. Statistical Information Systems
Chapter 3. Statistical Surveys and Statistical Reports
Chapter 4. Dissemination and Using Statistical Information
Chapter 5. State Statistics Organization Systems
Chapter 6. State Management in Statistics
Chapter 7. Rewards and Violation Settlements

[*5] Previously, statistical work has been conducted according to the Account-Statistical Law Ordinance of September 1988.

Chapter 8. Implementation Provisions

The characteristics of Statistics Law do not differ largely from those of other countries as it regulates rights and responsibilities of the statistical office. One intriguing characteristics is that there are two types of statistics named, “Statistical Surveys” and “Statistical Report”. As stated in Chapter 3 stated above, “statistical survey” is “a survey decided by the state and is conducted using questionnaires and targeting organizations and individuals”. “Statistical report” is “a report that is to be periodical made by organizations and individuals, using a specific form and as required by the state.” Thus, the survey subject is obliged to cooperate in the statistical survey, whereas the statistical report requires the survey subject to make a report directly. In any case, for government-designated statistics, the survey subject is required to submit questionnaires.

In addition to the Statistics Law, a “Government Decree on Functions, Duties, Authorities and Organizational Structure of the General Statistics Office” was promulgated in September 2003 as an ordinance to specifically describe its statistical tasks. This decree consists of the following six articles:

Article 1. Position and function
Article 2. Duties and authorities
Article 3. Organizational structure of GSO
Article 4. Organizational structure of the GSO headquarter
Article 5. Effectiveness
Article 6. Responsibility

Thus, the GSO is spearheading nationwide efforts to develop a modern statistical system in many fields, including the improvement of the legal system, unification of statistics, improvement of employees’ capacity, and use of information and communication technology.

2.1.3 Type and Coverage of Current Statistics

2.1.3.1 Type and Coverage of GSO Statistics

Table 2-1 lists statistics that are currently compiled and published by the GSO.

Table 2-1 Main Statistics Compiled by the GSO

Department		Title	Frequency	Outline	Remarks
Population and Labour Statistics Dept.	1	Population Census	Every 10 years	Complete enumeration on family budget	Covers the whole country
	2	Annual Survey of Population Change	Annual	Sampling survey on family budget	Covers the whole country
	3	Survey on Migration	Quintennial	Sampling survey on family budget	Covers the whole country
	4	Annual Labour and Employment Survey	Annual	Sampling survey on family budget	Covers the whole country; conducted jointly with MOLISA
Trade, Services & Prices Statistics Department	1	Establishment Census	Quintennial	All establishments excluding agriculture, forestry and fishing	Covers the whole country
	2	Survey on Wholesale, Retail Trade, Restaurant, Hotel, Tourism, Services in Non-State Enterprises	Annual	Wholesale, retail, hotels, restaurants, tourist business, small-scale Household industries such as household enterprises	Covers the whole country
	3	Survey on Circulation of Wholesale and Retail Trade	Monthly	Wholesale, hotels, restaurants, service industries	Complete enumeration for large enterprises; sampling survey on medium and small enterprises and households
	4	Business Tendency Survey	Quarterly	Large state enterprises, foreign enterprises and non-state enterprises in 15 cities and provinces	Sampling survey on 1,570 enterprises
	5	Sample Survey on Consumption Price	Monthly	Sampling survey on enterprises and small establishments	Covers all industries
	6	Sample Survey on Production Price	Monthly	Sampling survey on enterprises and small establishments	Covers all industries
	7	Sample Survey on Material Price	Quarterly	Sampling survey on enterprises	Covers all industries
	8	Sample Survey on Import-Export Price	Quarterly	Sampling survey on enterprises	Covers all industries
	9	Monthly Reporting System	Monthly	State enterprises and foreign enterprises engaged in wholesale and retail	Covers the whole country
	10	Household Census	Annual	Sampling survey on households	Covers all industries
SNA Dept.	1	Survey for Calculating Quarter GDP	Quarterly	Sampling survey on enterprises	Covers all industries and the whole country
	2	Survey for Calculating Regional GDP	Quarterly	Sampling survey on enterprises	Covers all industries and the whole country
	3	Survey for Input/Output Table	Quarterly	Sampling survey on enterprises	Covers all industries and the whole country
Industry and Constructional Statistics Dept.	1	Enterprise Census	Annual	Enterprises in all industries	Covers the whole country
	2	Monthly Industrial Survey	Monthly	Non-state enterprises and households in the industrial sector	Sampling ratio: 3-5%
	3	Monthly Reporting System	Monthly	State enterprises and foreign enterprises in the industrial sector	Complete survey
	4	Monthly Reporting System	Monthly	State enterprises and foreign enterprises in the construction industry	Complete survey
	5	Survey on Development Trend of Construction Field	Quarterly	Large state enterprises, foreign enterprises and non-state enterprises in 8 cities and provinces	Sampling survey
Agricultural, Forestry and Fisheries Statistics Dept.	1	Survey on Plated Area, Yield and Production of Farm Products	Annual	Sampling survey on small farmers	Covers the whole country
	2	Animal Husbandry Statistics Survey	Annual	Sampling survey on households	Survey month: April; covers main farming and livestock provinces
	3	Animal Husbandry Statistics Survey	Annual	Sampling survey on households	Survey month: August; covers the whole country

Department		Title	Frequency	Outline	Remarks
	4	Survey on Planted Area, Yield, Production of Rice	Annual	Sampling survey on small farmers	Covers the whole country
	5	Survey on Planted Area, Yield and Production of Perennial Crops	Annual	Sampling survey on small farmers	Covers the whole country
	6	Survey on Area of Water Surface for the Aquaculture, Material Facilities, Production of Aquatic Products	Annual	Sampling survey on small farmers	Covers the whole country
	7	Survey on Non-State Enterprise in Forestry	Biennial	Sampling survey on non-state enterprises	Covers the whole country
	8	Survey on Population Households, Labours and Main Material Capacity in Agriculture, Forestry and Fishery Industry	Annual	Sampling survey on households and enterprises	Covers the whole country
	9	Survey on Production Value, Intermediate Cost, Value Added of Agriculture, Forestry and Fishery Industry	Annual	Sampling survey on households and enterprises	Covers the whole country
	10	Reporting System	Annual	State enterprises and foreign enterprises in agriculture, forestry and fishing	Covers the whole country
onmental and Social Statistics	1	Vietnam Living Standards Survey	Biennial	Sampling survey on family budgets	Covers the whole country

Source: The results of hearings from the GSO departments

Statistics that seem to have bearing on design of current production statistics are described as follows.

(1) Labour Statistics

The typical labour statistics are the "Population Census" and the "Vietnam Living Standards Survey" mentioned above and the "Annual Labour and Employment Survey" carried out by the GSO and the Ministry of Labour, Invalids and Social Affairs (MOLISA).

The "Annual Labour and Employment Survey" has been conducted since 1997 using the budget allocated to each ministry by the Ministry of Finance from the National Employment Fund. This survey is conducted annually and covers the entire country; in 2002, a sample survey was conducted of 109,540 households. The questionnaire for this survey covers such items as the number of workers, working hours and the number of regular employees, and the survey is conducted as of July 1. The survey results are published not only in the Statistical Year Book published in May each year but also in the "Status of Employment in Vietnam," which contains data by province, sex and occupation.

(2) Commercial Statistics

The following four statistics are positioned as major account of commercial activities in the country: "Establishment Census," "Survey on Wholesale, Retail Trade, Restaurant, Hotel,

Tourism, Services in Non-State Enterprises," "Survey on Circulation of Wholesale and Retail Trade," and "Business Tendency Survey."

The "Establishment Census" is the only statistics covering all industries from households to large enterprises. This census was first carried out in 1995, with the second one in June 2002. The coverage is all industries excluding agriculture, forestry and fishing, while households are investigated by the sampling method. The survey items cover financial statements, including basic business data, the number of employees, turnover, assets, capital, investment and construction. The survey results were published as the "Result of Establishment Census, Vols. 1, 2, 3" in November 2004.

The "Survey on Wholesale, Retail Trade, Restaurants, Hotels, Tourism, Services in non-state Enterprises" is an annual survey and covers wholesale, retail, hotels, restaurants, tourist industry and personal service enterprises and non-sate small enterprises and households. This survey is conducted as of December 31 each year and its survey items include business category, turnover, expenditure, tax paid, the number of employees, the number of business days, assets and working capital. The survey result is reported 12 months after the survey date (December 31) as "The result of survey on wholesale, retail sales, restaurants, hotels, services of non-state enterprises."

The "Survey on Circulation of Wholesale and Retail Trade" covers wholesale, retail, hotels, restaurants and the service industries, and comprises a complete enumeration of large enterprises and a sampling of medium and small enterprises and households. The sampling ratio is 10-20% for medium and small enterprises, and 0.5% for household industries. The survey results are published in the "Results of Monthly Survey on Circulation of Wholesale and Retail Trade" towards the end of the following month together with the indices that represent indexed comparison with the previous month's results.

The "Business Tendency Survey" was initiated in the second quarter of 2001 for the manufacturing, wholesale/retail and export industries. In the fourth quarter of 2002, the construction and transportation industries were added. The survey items are those concerning business conditions and the management environment, including business conditions over the past three or four months, expected conditions for the following three or four months, and business prospects for the next six months hence. As for the manufacturing industry, it covers the main 15 provinces and cities, and the areas covered will be increased in the future.

(3) Price Statistics

The two main price statistics are: the "Consumer Price Index" and "Producer Price Index."

The "Consumer Price Index" is produced monthly and covers 392 commodities sold across the country. Of total, price data on 92 commodities including foods, whose are expected to

fluctuate more than others, are collected three times a month (5th of the month before the survey month, 15th and 25th of the survey month). Of the remaining commodities, price data on 286 items whose are considered relatively stable are collected on the 15th of the survey month, while those on the remaining 14 items are collected whenever the prices change. The data thus collected are converted by the Laspeyres formula using a 2000-based index. The data in the "Vietnam Living Standards Survey," etc. are used as the weighting in the calculation of these indexes. The consumer price index is published on the 25th of the month after the survey month as "Today's Price Index."

The "Producer Price Index" is compiled quarterly and covers 612 commodities in 37 of the country's 64 provinces. Data are obtained by questionnaires, in which information on each commodity is entered in a free entry method, twice a month, on the 5th and 19th. The Laspeyres formula is used for the calculation using a 1995-based index. Research is underway into future changes to the present quarterly index calculation to a monthly one. The survey results are published on the 25th of the month following the survey quarter as "Trends in Price Statistics."

(4) National Accounting

National accounting in Vietnam is estimated both quarterly and annually. The shift to the SNA93 was made from 2000 to 2003 with the support of the Asian Development Bank (ADB), and the Vietnamese System of National Accounts (VSNA) was prepared as the statistical standard based on the country's circumstances. The estimated items are gross domestic product (GDP), gross output and value added, final expenditure, capital formation and the export and import of goods and services. The estimate is made from production and expenditure aspects, and is divided into three stages: pre-estimate, first estimate and official estimate. The data used for estimates includes the various GSO statistics, data held by the ministries and agencies and reports by state enterprises. The estimate results are published as GSO new releases or on the GSO website on the 30th of the last month of the survey quarter for preliminary reports, and on the 30th of the month following the survey quarter for final reports.

(5) Industrial Statistics

The definition of industrial statistics varies among countries (Ref. Page 2-14 "2.2.1 Definition of Industrial Statistics"). In Vietnam, it covers "mining", "manufacturing" and "electricity/gas/ water supply". The Industrial and Constructional Statistics Department of the GSO is responsible for the statistics of these fields. "Enterprise Census" and "Monthly Industrial Survey" are representative in the industrial statistics.

The "Enterprise Census" is conducted every year since 2001, and covers all enterprises with five or more employees, such as mining and manufacturing, commercial and service industries. The items are those on the financial statements, such as the number of employees, capital, fixed assets, earnings, profits and investment in construction. The list of enterprises

used for distribution of the questionnaire is the one prepared using administrative data, tax office data and past censuses. The census results are published as the "Results of the Enterprise Census," while the results of the Enterprise Censuses for the past three years were reported in the "Real Situation of Enterprises through the Results of Surveys Conducted in the Said Period."

The "Monthly Industrial Survey" is, as its name suggests, conducted every month and covers enterprises engaged in mining, manufacturing, and electricity/gas/water supply, as well as households. A complete enumeration is carried out on state enterprises and foreign enterprises, while a sampling is conducted on non-state enterprises and households. The main survey items are main business (VSIC four-digit), output at constant price, turnover, consumption tax paid and products (actual results in the survey month and estimation for the next month).

2.1.3.2 Dissemination of GSO Statistics

The above statistics compiled by the GSO are disseminated through mass media and are reported to various government offices and organizations. The PSOs furnish statistical data to local people's committees, industrial bureaus (local agencies of the Ministry of Industry), planning & investment bureaus (local agencies of the Ministry of Planning and Investment), while the GSO provides data for central government offices, such as the Central People's Committee, the MPI, the MOI, and the central bank. The same reporting format is used for all statistical data, regardless of government offices.

Based on statistical data furnished by the GSO and the PSOs, ministries and agencies use them for policymaking and related purposes, such as management of state enterprises, policy decisions on new industrial development projects, and SME development. For instance, the MPI prepares and submits reports on industrial development projects planned by related ministries and agencies to the national assembly and/or the premiere, which use various statistical data, such as manufacturing and trade statistics. Also, the MOI prepares a number of reports for the national assembly and/or the premiere by using production data to grasp the industry trends.

On the other hand, the private sector is not in a position to use statistical data published by the GSO for business purposes because of data restraints, e.g., limited availability of data by industry or commodity in the case of industrial statistics. However, this does not necessarily mean the lack of demand for statistics. In fact, the interview surveys revealed that the majority of companies expected wider dissemination of statistical data.

In this conjunction, the GSO's online service started at the end of 2004 is expected to attract a wide range of users. The GSO created a Web site dedicated to the service in October 2004 and steadily adds new contents. Thus, the prospect that the private sector can access to current production statistics and other statistical information that is closely associated with

business management will pave the way to wider availability of government statistics as public goods. (See 2.4.3 for detailed content of the GSO's Web site.)

2.2 Overview of the Main Industrial Statistics

2.2.1 Definition of Industrial Statistics

Statistics concerning the manufacturing industry are often referred as industrial statistics or manufacturing statistics. In addition to the different names, their scope and content varies between countries and organizations. While industrial statistics under the International Standard Industrial Classification (ISIC) covers all industrial sectors, the definition set by the World Bank in "the World Development Indicators" limits the scope to mining, manufacturing, construction and electricity/gas/water supply sectors. Even in Japan, there is a lack of uniformity. While industrial statistics are considered to cover the all sectors listed in the Japan Standard Industry Classification (JSIC), they are generally considered to cover the mining and manufacturing industries. In contrast, industrial statistics in Vietnam consistently covers mining, manufacturing and electricity, gas and water supply without lack of uniformity.

This report follows the traditional definition adopted in Vietnam and envisages that industrial statistics – including current production statistics - cover three sectors, namely mining, manufacturing and electricity/gas/water supply.

2.2.2 Details of Industrial Statistics in Vietnam

There are two major industrial statistics in Vietnam, namely, the “Enterprise Census” and “Monthly Industrial Survey” prepared by the Industrial and Constructional Statistics Department. Details of these statistics are described as follows.

2.2.2.1 Enterprise Census

(1) Organization
Industrial and Constructional Statistics Department, GSO

(2) Purpose
1) To collect information about the conditions and operation results of enterprises to evaluate the real status and capacity of enterprises in industries and economic sectors; to collect data for calculating other indicators in SNA.
2) To update the enterprise database for business statistics and other statistics

(3) Frequency
Annual (first conducted in 2001)
Survey month: March

(4) Scope
All enterprises in agriculture, forestry and fishery, mining, manufacturing, electricity, gas, water supply, construction, wholesale and retail, repair of motor vehicle, personal and household appliance, hotels and restaurants, communication, finance, science and technology,

asset trading and consultancy service, training and education, healthcare, cultural and sport activities, personal and community services.

(5) Coverage
Nationwide

(6) Statistical unit
These are mainly separated into three types, namely, state enterprises (central, local), foreign enterprises, and non-state enterprises.

(7) Classification of enterprises by industry
The industry whose product accounts for the largest turnover among the enterprise's products.

(8) Enterprise directory
In addition to the directory for the Economic Census that is conducted every five years, enterprise registration and tax office data are used to create the list for the survey. The list is sent to the PSOs and checked the recent business condition for finalizing the list.

(9) Survey method
Survey methods differ according to state-own enterprise, foreign enterprise, or non-state enterprise. State enterprises are obliged to submit periodic reports to each Provincial Statistics Office (PSO). The format used to submit reports (equivalent to the survey questionnaire) is distributed by each PSO, and each state enterprise fills in this form and submits it to each PSO directly or by post by the end of March. As there are no expense items on this submission form, the "Survey form No. 2 A-DTDN/M" is provided separately to such enterprises, and then submitted to each PSO directly or by post. State enterprises are not sampled, and instead a complete enumeration is implemented.

The "Survey form No. 1 A-DTDN" is provided to foreign enterprises by each PSO, for submission to each PSO by the latter half of March directly or by post in precisely the same way as those for state enterprises. Instead of questionnaires being distributed by the PSO enumerators, normally, they are provided after a telephone call has been made to the enterprises by the PSO seeking their participation in a the questionnaire guidance meeting, where the forms are distributed (In the case of some PSOs, the PSO staff may distribute and collect questionnaires.). Foreign enterprises are not sampled either, and a complete enumeration is conducted.

The survey method for non-state enterprises is divided into two types. For enterprises with 10 or more employees, the "Survey form No. 1 A-DTDN" is distributed by each PSO in the same manner as for foreign enterprises, and they are submitted directly or by post. In this

case, no sampling is performed, and a complete enumeration is conducted. On the other hand, for non-state enterprises with fewer than 10 employees, sampling is performed on about 20% of such enterprises, and the same "Survey form No. 1 A-DTDN" as above is distributed and collected through the District Statistics Office (DSO), a subordinate organization to the PSO. For the remaining 80% of enterprises, the "Survey form No. 1 B-DTDN" is distributed. This form requires a description of the production quantity in a freestyle format in addition to general information, such as the enterprise name and address, in contrast to "Survey form No. 1 A-DTDN". In addition, unique questionnaires are used to survey trust banks and insurance companies, etc. regardless of their enterprise type.

(10) Survey items

Survey items described on "Survey form No. 1 A-DTDN", which is the most commonly used form for enterprises, are as follows.

1. Name of enterprise
2. Address
3. Enterprise type
4. Business type
5. Number of employees
6. Employee remuneration, the enterprise employer's contribution to social insurance, health insurance, and trade-union
7. Assets and capital resources of the year 2003
8. Business results in the year 2003
9. Performance of obligations to the State in the year 2003
10. Products (If applicable)
11. Existing equipment and machinery as of December 31st, 2003
12. Actual contribution to legal capital
13. Investment capital in the year 2003
14. Completed construction in 2003 (If applicable)
15. Gross output of industrial and constructional activities in 2003 (if applicable)
16. Trading activities in 2003 (if applicable)
17. Details of net turnover by products
18. Hotel business status (if applicable)
19. Restaurant status (if applicable)
20. Other service industries
21. List of subsidiaries

(11) Dissemination method

Survey results are published as "The Results of the Enterprise Census", "Statistical yearbook", and the Internet, etc. in May the year after next. Results of the last three

enterprise censuses are published as “The Real Situation of Enterprises through the Results of Surveys Conducted in the Said Period”.

(12) Dissemination items

The number of enterprises, the number of employees, remuneration, and turnover, etc. are the primary announcements for 11 different items. Items included in “The Results of the Enterprise Census” are shown below.

Table 2-2 Dissemination Items in the Enterprise Census

Item	Coverage	Dissemination Style	Note
Number of enterprise	All enterprises	(1) By enterprise type; by industrial division (Classification based on 2-digit VSIC code) (2) By area; by industrial category (Classification based on 1-digit VSIC code) (3) 8-rank classification by employee number; by enterprise type (4) 8-rank classification by employee number; by industrial division (Classification based on 2-digit VSIC code) (5) 8-rank classification by employee number; by area; by industrial category (Classification based on 1-digit VSIC code) (6) 8-rank capital classification; by enterprise type (7) 8-rank capital classification; by industrial division (Classification based on 2-digit VSIC code) (8) 8-rank capital classification; by area; by industrial category (Classification based on 1-digit VSIC code)	(1), (2), (3), (4), (6) State enterprises (central, local), non-state enterprises, foreignn enterprises (100% foreign-owned, mergers) (3), (4), (5), (6), (7), (8) Ratio display
Labour	All enterprises	(1) Year-beginning value / year-end value / mid-term average value: Total number and ratio of female employees; by enterprise type (2) Year-beginning value / year-end value / mid-term average value: Total number and ratio of female employees; by industrial division (Classification based on 2-digit VSIC code) (3) Year-beginning value / year-end value / mid-term average value: Total number and ratio of female employees; by area; by industrial	(1) State enterprises (central, provincial), non-state enterprises, foreignn enterprises (100% foreign-owned, mergers) (4), (5) Joint management, private enterprises, merged enterprises, joint-stock companies, partnership firms involving government capital, partnership firms without government capital.

Item	Coverage	Dissemination Style	Note
		category (Classification based on 1-digit VSIC code) (4) By enterprise type; by industrial division (Classification based on 2-digit VSIC code) (5) By enterprise type; by area; by industrial category (Classification based on 1-digit VSIC code)	
Compensation	All enterprises	(1) By remuneration type; by enterprise type (2) By remuneration type; by industrial division (Classification based on 2-digit VSIC code) (3) By remuneration type; by area; by industrial category (Classification based on 1-digit VSIC code)	(1) Wages / salaries / bonuses, insurance premiums, salaries other than business expenditure, monthly salary by employee (1) State enterprises (central, provincial), non-state enterprises, foreignn enterprises (100% foreign-owned, mergers)
Assets	All enterprises	(1) By asset type; by industrial division (Classification based on 2-digit VSIC code) (2) By asset type; by area; by industrial category (Classification based on 1-digit VSIC code)	(1) Beginning & end of year values: Short-term and liquid assets, long-term and fixed assets
Capital source	All enterprises	(1) Beginning & end of year values: debt, shareholders' equity; by enterprise type (2) Beginning & end of year values: debt; by industrial division (Classification based on 2-digit VSIC code) (3) Beginning & end of year values: debt; by area; by industrial category (Classification based on 1-digit VSIC code) (4) By enterprise type; by industrial division (Classification based on 2-digit VSIC code) (5) By enterprise type; by area; by industrial category (Classification based on 1-digit VSIC code)	(1), (4), (5) State enterprises (central, provincial), non-state enterprises, foreignn enterprises (100% foreign-owned, mergers)
Fixed assets and long term investments	All enterprises	(1) By fixed asset type; by enterprise type (2) By fixed asset type; by industrial division (Classification based on 2-digit VSIC code) (3) By fixed asset type; by area; by industrial category	(1) Beginning & end of year values: Cost, accumulated depreciation, net outstanding amount (2), (4), (5) State enterprises (central, provincial), non-state

Item	Coverage	Dissemination Style	Note
		(Classification based on 1-digit VSIC code) (4) By industrial division (Classification based on 2-digit VSIC code) (5) By enterprise type; by area; by industrial category (Classification based on 1-digit VSIC code)	enterprises, foreignn enterprises (100% foreign-owned, mergers)
Net turnover	All enterprises	(1) By enterprise type; by industrial division (Classification based on 2-digit VSIC code) (2) By enterprise type; by area; by industrial category (Classification based on 1-digit VSIC code) (3) Non-state enterprises: by enterprise type; by industrial division (Classification based on 2-digit VSIC code)	(1), (2) State enterprises (central, provincial), non-state enterprises, foreignn enterprises (100% foreign-owned, mergers) (3) Joint management, private enterprises, general partnership, joint stock companies, partnership firms involving government capital,
Profit before tax	All enterprises	(1) By enterprise type; by industrial division (Classification based on 2-digit VSIC code) (2) By area; by industrial category (Classification based on 1-digit VSIC code)	(1) State enterprises (central, provincial), non-state enterprises, foreignn enterprises (100% foreign-owned, mergers)
Profit	All enterprises	(1) Increase (total, increase resulting from turnover), reduction (total, reduction resulting from turnover); by enterprise type (2) Increase (total, increase resulting from turnover), reduction (total, reduction resulting from turnover); industrial division (Classification based on 2-digit VSIC code) (3) Increase (total, increase resulting from turnover), reduction (total, reduction resulting from turnover); by area; by industrial category (Classification based on 1-digit VSIC code)	(1) State enterprises (central, provincial), non-state enterprises, foreignn enterprises (100% foreign-owned, mergers)
Implemented construction investment	All enterprises	(1) By type of temporary account for construction (2) By type of temporary account for construction, by industrial division; (Classification based on 2-digit VSIC code) (3) By type of temporary account for construction, by area; by industrial category (Classification based on 1-digit VSIC code)	(1) Architecture, facility related to architecture (1) State enterprises (central, provincial), non-state enterprises, foreignn enterprises (100% foreign-owned, mergers)

Item	Coverage	Dissemination Style	Note
Completed construction investment and new increase in fixed assets	All enterprises	(1) By type; by enterprise type (2) By type; by industrial division (Classification based on 2-digit VSIC code) (3) By type; by area; by industrial category (Classification based on 1-digit VSIC code)	(1) Investment for construction, facility, other investment (1) State enterprises (central, provincial), non-state enterprises, foreignn enterprises (100% foreign-owned, mergers)

Source: The Results of the Enterprise Census, GSO

2.2.2.2 Monthly Industrial Sample Survey

(1) Organization

Industrial and Constructional Statistics Department, GSO

(2) Purpose

Submission of reports to various ministries, including the Ministry of Industry and Ministry of Planning and Investment (MPI), to the Provincial and Central People's Committees, etc.

(3) Frequency

Monthly

(4) Scope

C: Mining, D: Manufacturing, E: Electricity/Gas/Water Supply in VSIC

(5) Coverage

Nationwide

(6) Statistical unit

Enterprises and households. Notes that the unit is "enterprise" but not "establishment".

(7) Classification of enterprises by industry

The industry whose product accounts for the largest turnover amongst the enterprise's products defines the enterprise's industry type.

(8) Enterprise directory

For the Monthly Industrial Survey, the same directory is generally used as the Enterprise Census. However, if data concerning closure or relocation of enterprises is received by the PSO beforehand, the directory is adjusted accordingly.

(9) Compilation method

For the Monthly Industrial Survey, data is acquired from the monthly reports sent from state and foreign enterprises, and from a sample survey of non-state enterprises and households.

Periodic reporting is obligatory for state and foreign enterprises, and the formats to be used for reporting are distributed by each PSO. All state and foreign enterprises fill in this form, and submit it to each PSO by 12th of every month directly or by post. Accordingly, a complete enumeration of state and foreign enterprises is conducted without the involvement of enumerators.

For non-state enterprises and households, targeted enterprises are sampled, and questionnaires are distributed and collected by DSO staff or People's Committee staff. In terms of sampling, the enterprises are selected per PSO based on the sampling rate allocated to each province, with an average of 15% of non-state enterprises and 1.5% of households being surveyed (Table 2-3).

Table 2-3 Number of Enterprises for Monthly Industrial Survey by Enterprise Type

Type	All Businesses	Industry	Output Value Share	Sample Ratio	Enterprises for Monthly Survey
TOTAL *1	**72,012**	**18,198**	**100%**		**5,718**
Central State	1,898	661	29.4%	x 100%	661
Local State	2,947	848		x 100%	848
FDI	2,641	2,007	43.1%	x 100%	2,007
Non-State	64,526	14,682	18.8%	x 15%	2,202
Household	2,712,177	755,421	8.7%	x 1.5%	11,331

Source: "The real situation of enterprises through the results of surveys conducted in 2001, 2002, 2003" GSO, 2004

*1: Household is not included.

(10) Survey items

Questionnaires are different by type of enterprise.

1) Survey items for state enterprises

- ■ Name of Enterprise
- ■ Main Activities
- ■ Type of Enterprise
- ■ Amount for This Month, Cumulative to This Month, Estimation for Next Month
  - * Gross output (by constant price 1994)
  - * Turnover
    - i) Of which: Turnover from selling materials and selling and buying goods without processing at enterprise
    - ii) Of which: value of selling goods

■ Value of Renting Fixed Asset including Operator
■ Subsidies of the Government
■ Tax have to paid
■ Products
■ Business Situation of Enterprise in Reported Month

2) Survey items for foreign enterprises (hereafter, all figures are to be described in US dollars)

■ Name of Project
■ License Number
■ Address
■ Telephone Number
■ Investment Capital
  * Legal Capital
    i) Domestic Capital
       Proportion of land usage rights
       Proportion of resource usage rights, etc.
    ii) Overseas Capital
       Proportion of cash
       Proportion of facilities, such as machinery
  * Borrowed Capital
    Proportion of overseas capital
■ Labour Available as of the End of Report Month
  * Proportion of Vietnamese employees
  * Proportion of foreign employees
■ Value of Imported Goods
  * Proportion of imports for construction
  * Proportion of imports for sales and production
■ Turnover
  * Proportion of turnover derived from exports
  * Proportion of domestic turnover in US dollars
  * Proportion of domestic turnover converted from Vietnamese dong to US dollars
  * Proportion of the export value out of the turnover
■ Tax and Other Obligations to State Budget
■ Foreign Currency Transferred Abroad
■ Main Products

3) Survey items for non-state enterprises

■ Name of Enterprise
■ Name of Main Activity
■ Type of Enterprise

■ Amount for This Month, Cumulative to This Month, Estimation for Next Month
  * Gross output (by constant price)
  * Turnover
    i) Of which: Industrial Turnover
■ Consumption tax have to paid
■ Products
■ Business Situation of Enterprise in Reported Month

4) Survey items for Households
■ Name of Household
■ Address
■ Hamlet (housing number)
■ Commune Name
■ District Code
■ Province Code
■ Main Activities
■ Amount for Previous Month, Estimation for This Month
  * Number of employees
  * Turnover (without tax)
  * Added consumption tax
■ Products
■ Business Situation of the Household

(11) Dissemination method

The survey results are published as monthly industrial statistics (He Thong Bieu Mau, Dieu Tra Va Tong Hop Thong Ke Cong Nghip, Thang). Dissemination is not limited to related organizations, but available for everyone. Although the dissemination is open for any individuals/organization, the survey results cannot be purchased at bookstores or viewed on the Internet, and need to be acquired from the General Statistics Office (GSO) or Provincial Statistics Office (PSO) directly.

(12) Dissemination items

The survey results are announced in two formats, namely, “Gross output by constant price (1994 basis)” and “Production Quantity of Main Products”. “Gross output by constant price” is categorized as; (1) Cumulative value from January to the previous month, (2) Estimated value for this month, (3) Cumulative value from January to this month, (4) Year-on-year comparison (index), (5) Year-on-year comparison of the cumulative value from January to this month. The results are announced by enterprise type and by main province. On the other hand, “Production Quantity of Main Products” are categorized as; (1) Cumulative value from January to the previous month, (2) Estimated value for the reported month, (3) Cumulative value from January to the reported month, (4) Year-on-year comparison, (5) Year-on-year

comparison of the cumulative value from January to the reported month. The results are announced by main product type. Items disseminated in the monthly industrial statistics are listed as follows.

Table 2-4 Dissemination Items in the Monthly Industrial Survey

Item	Coverage	Dissemination Style	Note (Each number is referred to the left column)
Gross output by constant price (1994 basis)	All enterprises	(1) Cumulative value from January to the previous month (2) Estimated value for this month (3) Cumulative value from January to this month (4) Year-on-year comparison (index) (5) Year-on-year comparison of the cumulative value from January to this month.	(1), (2), (3), (4), (5) By enterprise type (state, foreign-own, non-state) (1), (2), (3), (4), (5) By main province (15 province/city)
Main Products	All enterprises	(1) Cumulative value from January to the previous month, (2) Estimated value for the reported month, (3) Cumulative value from January to the reported month, (4) Year-on-year comparison, (5) Year-on-year comparison of the cumulative value from January to the reported month	(1), (2), (3), (4), (5) By product type (34 product types), by enterprise type

Source: Monthly Industrial Survey (He Thong Bieu Mau, Dieu Tra Va Tong Hop Tong Ke Cong Nghip)

2.2.3 Status of the Use of Statistics

In order to determine the current status of the use of the above industrial statistics, interview surveys were conducted for enterprises and other organizations concerned. Specifically, government bodies, international organizations, manufacturing industries, and industry associations were visited and interviewed with regard to the status of use of statistics. Based on the research results, three points, namely, type of statistics used, purpose of use, and degree of satisfaction with the current statistics are described as follows.

2.2.3.1 Type of Statistics Used

Type of statistics used depends entirely on the user type. Those organizations that use industrial statistics during normal operations are government bodies, such as the Ministry of Planning and Investment (MPI), the Ministry of Industry (MOI), the State Bank, and industrial departments of the provinces. These bodies tend to use monthly and annual figures for the "Gross output by constant price" and production indices in many cases. In the government bodies such as the Ministry of Industry who obtains periodical data from state enterprises under

their control, the direct reports are regularly used for their operation and the monthly data issued from the statistics office is not used very often.

On the other hand, enterprises are interested in macro economic indicators, such as GDP and unemployment rates, or trade data. Except for ad-hoc analysis of business circumstances, the frequency of usage for industrial statistics is lower than by government bodies. This is mainly because large-scale manufacturing industry in Vietnam primarily deals with foreign markets as its primary client rather than its domestic market, and production trends in the domestic market are not directly related to their business circumstances.

In terms of the frequency of the use of statistics, monthly statistics are less used than annual statistics, especially in foreign-owned or non-state enterprises. One reason is considered that the Monthly Industrial Sample Survey result is not purchasable at book stores and must be obtained directly from the General Statistics Office (GSO) or Provincial Statistics Office (PSO). In contrast, annual statistics, such as the Statistical Year Book, can be readily purchased at book stores. This fact might be one of reasons that the recognition of the monthly statistics is low. Furthermore, the purpose of statistical data usage is not for the grasp of short-term trend of industry, but for the mid-and-long-term market structure analysis.

The main disseminations primarily used for industrial statistics issued by the statistics office are the “Statistical Year Book”, “The Results of Enterprise Census”, and “The Real Situation of Enterprises through the Results of Surveys Conducted”. In addition to these disseminations issued by the statistics office, there are local economic magazines frequently used for business analysis, such as Saigon Times, Vietnam Economics, and Vietnam Investment Review.

2.2.3.2 Purpose of Use

The main purpose behind the use of these statistics also entirely depends on the type of users. The Ministry of Planning and Investment (MPI) and the Ministry of Industry (MOI), who often use the manufacturing statistics, opt to use them for management of existing industries, policy making for development of new industries or of small and mid-sized enterprises. The MPI submits reports concerning the development of industries drawn up by the state offices concerned to the National Assembly and Prime Minister, etc., and for such cases, statistics on manufacturing are used very often. The MOI also regularly issues reports for the National Assembly and Prime Minister, for which it uses the data on gross output to determine trends in manufacturing industry. On the other hand, manufacturing enterprises and industry associations, although they use manufacturing statistics comparatively less often, use the data to better understand or determine the current general economic trends, and also for preparation of ad-hoc data, such as project reports.

2.2.3.3 Degree of Satisfaction with Current Statistics

The most commonly expressed opinion amongst all interviewees was the unreliability of the statistics. In particular, the State Bank and industry associations noted that the method employed in the preparation of the statistics was not disclosed, and also there is a lack of clarity as to whether or not target enterprises were appropriately sampled, so the reliability of the statistics is considered low. Other concerns expressed by the Ministry of Planning and Investment and the State Bank were that 1994 was too long ago to be useful as a constant price index, rendering it difficult to appropriately recognize current industrial circumstances.

In terms of statistical development in the future; 1) “reliable statistics” and, 2) “statistics prepared in accordance with international standards” were the primary requests of the all interviewees. In this regard, the current statistics, their means of preparation, and the definition of survey items are unclear, so a more transparent disclosure method was high on the agenda when considering future development of statistics.

2.3 Current State of the GSO's Monthly Industrial Sample Survey and Major Issues

As outlined in the previous section, the ongoing monthly industrial sample survey covers approximately 17,000 enterprises to compile monthly statistics that account for industrial activities. In this section, major characteristics of the ongoing monthly survey and major issues required to meet the needs of users are discussed from the viewpoint of introducing current production statistics.

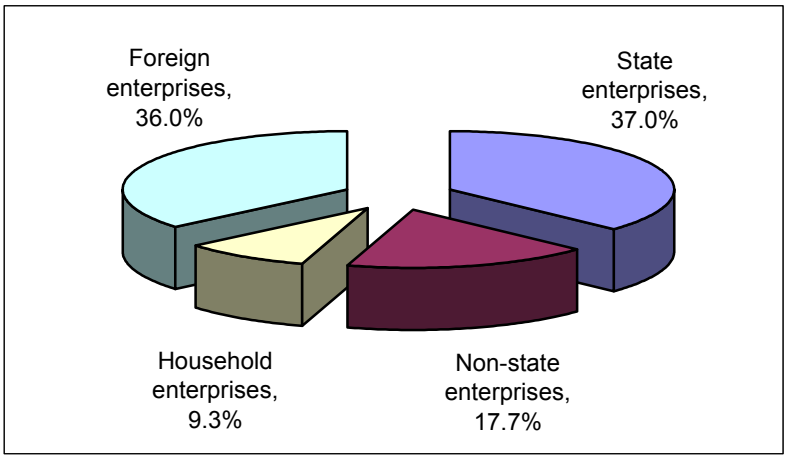
2.3.1 Major Characteristics of Survey Design and Issues

2.3.1.1 Survey Design Focusing on Enterprise and Region

The ongoing monthly sample survey compiles statistics emphasizing enterprises, rather than establishments. For instance, the turnover in the survey represents the gross turnover of an enterprise, which includes the revenue from wholesales activities, i.e., the purchase and resale of goods. As a result, while it represents business activities of each enterprise (industrial sector), it fails to reflect the current state of production activities accurately.

At the same time, the ongoing survey aims to monitor the current status of regional economy by administrative division. This can be seen from a strong relationship with local people's committees that are a main user of government statistics, as well as from the selection of surveyed enterprises, i.e., while the survey covers all state enterprises and foreign companies (FDI), non-state enterprises and household industries, which form the majority in number, are surveyed on a sampled basis. In fact, households account for approximately 70% of enterprises covered by the monthly survey, suggesting that the government intends to obtain a broad picture of business activities in a survey area (province or city). Figure 2-2 shows a breakdown of enterprises by form of ownership in industry sector as percentage share of output value in 2004.

Figure 2-2 Breakdown of Vietnamese Enterprises by Form of Ownership in Industry Sector (Output Value Share) in 2004



Source: Statistical Yearbook 2004, GSO

As seen in the figure, households represent approximately 9.3% of output value in industry sector, which is expected to decline as foreign companies and non-state enterprises (in the form of stock company) grow in number in recent years. This indicates that if one wishes to know industry trends focusing on production activities, the survey of state enterprises, foreign companies, and some of non-state enterprises is considered to be sufficient.

2.3.1.2 Complexity of Data Processing

For the ongoing monthly survey, there are four forms of questionnaire (or four sets of survey items) developed and used according to the enterprise capital type, and respondents are expected to specify their products and their classifications. As for collection, state enterprises and foreign companies are required to submit them under the reporting system, so that no enumerator is required and the rate of collection is nearly 100%. On the other hand, non-state enterprises are surveyed by the DSO staff, while household industries report to the DSO staff or staff of local people's committees (serving as enumerators). Because of the difference in questionnaire design (survey items) as well as the difference in the collection system, the present survey system is not suitable for accurate tabulation and compilation of enterprise data at a national level, adversely affecting reliability of data as official statistics, while data are processed accurately for each geographical area or type of enterprise.

At present, the PSO produces four types of statistical data from questionnaires collected for the monthly survey: (1) IIP (in 1994 price); (2) production (net); (3) major products (and production); and (4) sectoral analysis. The IIP is calculated in 1994 price and the GSO admits that it does not meet the present needs due to obsoleteness and inconsistency of data. Production data are not included in the survey results if a respective product does not accompany an appropriate code classification. Also, data reported by households are not included. Thus, the present questionnaire design (survey items) requires additional data processing if data are to be used as reliable statistics.

2.3.2 Major Characteristics and Issues Relating to Survey Implementation

2.3.2.1 Additional Cost Burdens Relating to the Survey of Household Industries

The ongoing monthly survey sets a deadline for collection from state enterprise and foreign companies on the 12th day of each month. The DSO that is responsible for non-state enterprises is required to submit collected questionnaires to the PSO on the 12th – 14th day of each month (closed on the 8th day). Each PSO then submits provincial (municipal) data to the GSO on the 17th day of each month. As discussed earlier, state enterprise and foreign companies are required to submit the questionnaire in time under the Reporting System, and completed questionnaires are generally submitted by facsimile. On the other hand, non-state enterprises send them by mail or delivery directly to the DSO, while the DSO staff

(enumerators) visits some enterprises for collection. And enumerators collect questionnaires from household industries. While the Reporting System is proven to be cost effective as it assures a fairly high rate of collection, collection from households requires substantial time and cost as enumerators have to visit all of them (depending upon the number of enumerators hired). This makes the latter less cost effective than the former. In fact, the survey of household industries takes up the largest part of the monthly survey cost, but the scope of data collection and use is fairly limited. Thus, it is the least cost effective from the standpoint of the survey's objective, i.e., to obtain data representing current production by industry as a whole.

2.3.2.2 Limited Dissemination and Need for Expansion of the User Base

The results of the monthly industrial sample survey are compiled into monthly reports by the DSO, the PSO, and the GSO, which are then distributed to central and local people's committees and other organizations. In addition to the monthly reports, production trends on 34 industrial commodities are made available to the public. Notably, the monthly reports are printed in limited quantities and are not made public. For instance, the Ho Chi Minh PSO prints 300 copies monthly, while other PSOs publish around 50 copies. Clearly, statistical data are accessible by a limited number of organizations and people.

In fact, it is reported that collection of the questionnaire from foreign companies is on the decline in recent years, despite of the requirement under the Reporting System. This is probably because an increasing number of foreign companies become reluctant to cooperate in the statistical survey as they are unable to obtain any data or feedback. Foreign companies, as well as non-state enterprises, both of which increase in number in Vietnam, are strongly interested in industrial statistics as they find them very useful. As statistical needs in the private sector are expected increase further with the transformation to a market economy, broader dissemination of survey results will become a major issue from the viewpoint of ensuring wide participation in the statistical survey.

2.4 Current Status of Computer Systems at GSO and PSOs and Major Issues

2.4.1 Current Status of Computer Systems at GSO

2.4.1.1 Overview of GSO Systems Division

The Systems Division of the GSO belongs to the Center of Statistics Informatics. (For its organizational structure, refer to Figure 2-1, P2-3.) Major functions of the Systems Division are as follows;

1) Integration of computer systems within the GSO
2) Selection, procurement and setting up of the systems
3) Software development
4) Development and implementation of network systems
5) Maintenance and support of hardware and software

At present, five full-time staff members work in the Systems Division, and among them, one is responsible for the maintenance of hardware, and the remaining four persons including the director is engaged in software development.

2.4.1.2 System Configuration of Hardware

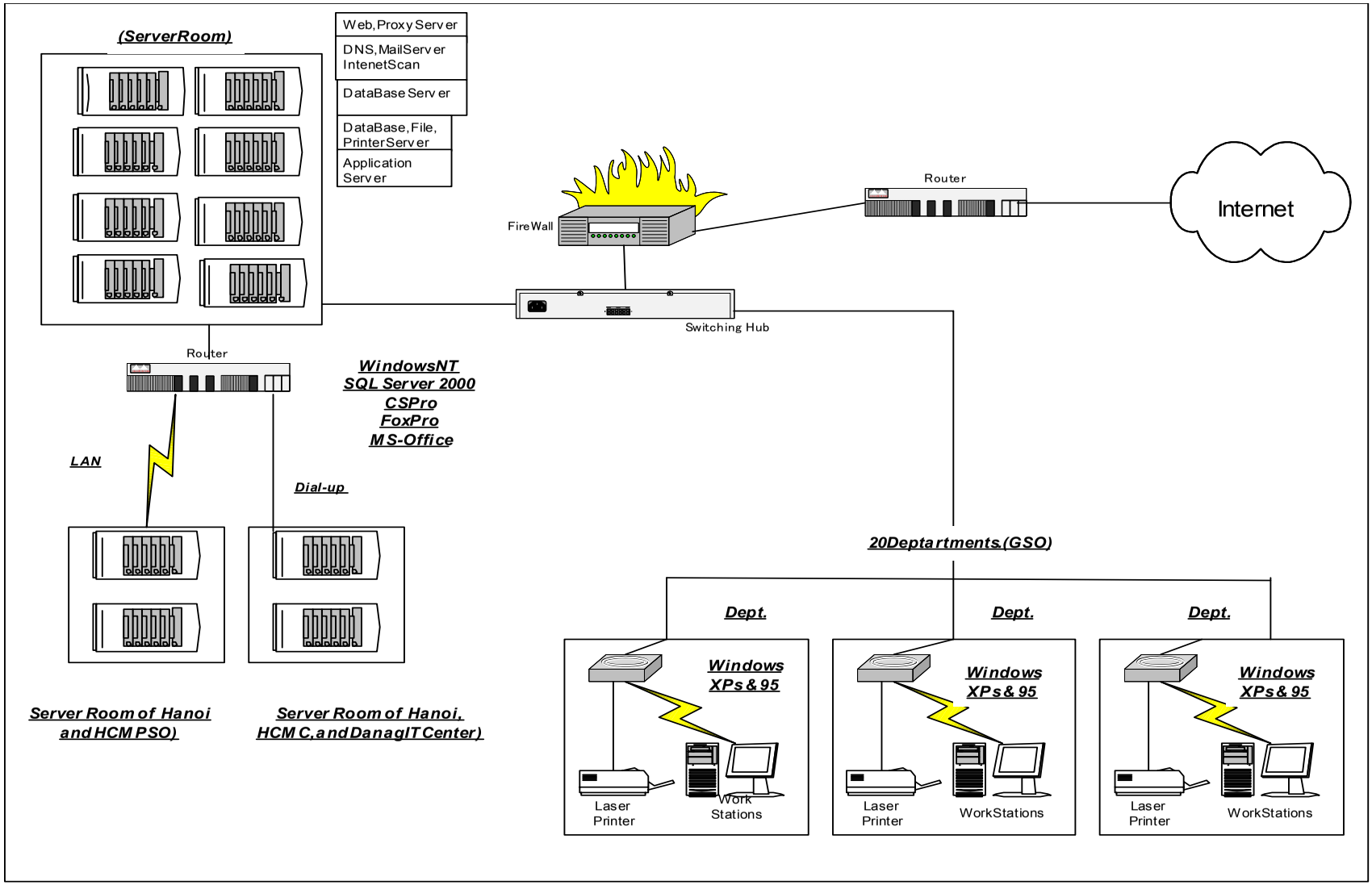
Figure 2-3 shows the entire network system configuration at the GSO.

Computer systems at the GSO are configured as a local area network system consisting of 6 servers and 250 client terminals. The six servers supplied by IBM, HP, and Compaq are organized as Web, Proxy, DNS, Mail, DB, File, FTP, and Printer Server respectively. For FY2005, the GSO plans to install 10 additional servers in February 2005. These servers will be used as replacement and upgrading of Web, FTP, File-Network, and DB Server. In addition, one of newly installed servers will be directly connected to the prime minister's office.

Approximately 250 client terminals under the GSO Net are connected via HUB and installed in each division of the GSO. Most client terminals are so called "brand products", which are totally different from the ones assembled using different modules and components produced by different manufactures which is so-called as "Non-brand" products.

As for security measures, the GSO's systems are also well equipped, including firewalls and UPSs being connected to servers and client terminals to minimize a risk of system breakdown due to power failure.

Figure 2-3 Network Configuration of GSO



Source : GSO

2.4.1.3 Configuration of Software

(1) Operating System

Windows 2000 advanced server is used as operating system for LAN servers. For operating systems of client PCs, both Windows XP and Windows 95 are used.

In consideration of the global trend of open sourcing , the installation of Linux is also planned. The GSO is also planning enhancement of their system environment using Linux and MySQL available from open source.

(2) Application Software

1) Development Tool

Visual Basic has been used as a major development tool and all development personnel are using this tool. This is because it is used as a key tool for development of the database storing data, which are incorporated as Enterprise Census or Household Census by Visual FoxPro and are converted to a form supported by SQL Server 2000. In addition, Visual Studio.net、ASP.net、Perl、C、and Java are used. However, that does not necessarily mean that all staff members are familiarly all development languages and tools.

2) Office Tool

The most popular Microsoft's office tool such as Word, Excel, Access, and Memo pad are used as office tool.

3) Relational Database Software

Major relational database software being used at the GSO is Visual FoxPro. First used by the Industrial and Construction Department, the software is now used in almost all departments of the GSO. (Microsoft distributed FoxPro to educational institutions in developing countries at a discount price.). Data created from each census compiled by the GSO are encoded by an input screen created by FoxPro and installed as database.

At the same time, both SQL Server 2000 and CSPro are used as relational database software for server side. The former has been donated by the SIDA and the latter is supplied as free software. These software programs have been used for various applications that fit their features. For example, SQL Server is used for data input and database establishment of each census and used as data transfer tool with IT Center which will be described in the latter part of this section. CSPro is not used very frequently.

SQL Server, also supplied by Microsoft are recently introduced to the GSO, but it has not gained a name due to the less reputation compared with Visual FoxPro. At present, the GSO is working on file and data conversion from FoxPro to SQL Server. GSO is also considering MySQL which works under Open Source environment. That is to install

Linux as operating system and keep in line with e-government promotion policy of the government, however, term for transfer is not clearly identified.

2.4.1.4 Communication Network Architecture

The GSO's server systems have an external connection via the Internet. Since connectivity to external networks is established through the firewall systems, the security level of the GSO might be considered as high, however individual's rights to access internet or e-mail is partly restricted. Thus not all of the GSO staff has access to external connection. Server systems of the GSO are also connected with the PSO systems of Hanoi and HCMC PSOs via 144 Kbps leased lines. Also the GSO systems have LAN connection with three IT centers located in Hanoi, HCMC, and Da Nang. The transmission speed to both Hanoi IT Center is 1 Mbps and to HCMC and Da Nang 144Kbps respectively. These network connections systems are called the Cute FTP private circuit line. Also GSO's File server is connected with the tax office using a leased circuit line for transmission and establishment of company statistical database which will be described in the latter portion of this section.

The GSO systems have also direct connection access via Cute FTP not only to Hanoi and HCMC but to all PSOs that are located in 64 locations in the country for transmission of statistical data. Volume of data transmitted varies between locations, however, seven files on the average are transferred between of the GSO and the Hanoi PSI per month and data volume per file per transmission averages 100 Kb.

PSOs and their affiliated DSOs equipped with personal computers have only dial up connections, and not hosted within the LAN system. Computer systems of DSOs are not well integrated and vary in size and number of staff at each DSO. Incidentally, the number of personal computers installed at each DSO averages 2 units per DSO.

The government of Vietnam is planning the installation of fiber optics cables across the country by the year 2007. And if it is realized, the GSO-Net covering the entire PSOs/DSOs will be established along with the government implementation plan.

2.4.1.5 IT Centers

(1) Overview of each IT Center

At present, three IT Centers are established in major cities, namely Hanoi, HCMC, and Da Nang. The major objective of IT Centers is to process various statistical data by dividing into three portions of the country, the north, the central, and the south. However, in January 2004, all the centers were consolidated as an affiliated institution of the GSO, these institutions were operated under each PSO as an affiliate to process statistical data of each region. The major purpose of consolidation of the centers was, among other things, to develop application software for statistical analysis tools, R & D of Information Technology,

IT education and training targeted to the GSO and PSO staff, and maintenance and support work of GSO's computer systems. However, an actual order for application development has not issued by the GSO, and the centers are still working on the previous projects including the processing of annual census data, the enumeration of household surveys, and the encoding of such data to the database software of each IT Center. Staffs have been sent to the GSO's and the PSO's systems department for maintenance and support of their systems and software. Hanoi IT Center is affiliated with Centre of Statistics Informatics, HCMC IT Center with Centre of Statistics Informatics II, and Da Nang with Centre of Statistics Informatics III Department of GSO.

1) Hanoi IT Center（Center of Statistical Information Service No.1:COSYS No.1）

The Center has 53 staff members at present and consists of the following six departments.

- Administration
- Finance and Planning
- Database
- Programming and Training
- Networking
- Information Processing

Among 53 staff members, 32 are IT engineers (20 are software development and 12 hardware engineers.).

The Center operates 7 server systems, of which its operating system is Windows NT, and 30 client terminals equipped mainly with Windows 98 and 2000 are interconnected via a local area network system.

The major relational database software being used in the server systems is SQL Server 2000, and FoxPro and CSPro are used. CSPro, which is obtainable as free software, is used mainly at the Information Processing Department. Hardware systems and major software including SQL Server are provided by both SIDA and UNDP.

2) HCMC IT Center（Center of Statistical Information Service No.2: COSYS No2）

The Center was established in 1988 by the People's Committee of HCMC. At present, approximately 150 staff members are working, consisting of 10 hardware engineers, 50 programmers, and 50 data encoders and operators. The system at the center is configured by 9 servers running on Windows 2000 and client terminals on Windows XP.

Each IT Center is engaged in the following statistics-related activities;

- Data processing for the population census(1995)
- Data processing for agricultural census in 1994 and 2001
- Processing of dairy census targeted to 14 million samples in 2001

- Data processing for economic and administrative agencies implemented in 2003
- Others including population, company census, and living standard census

In the case of the HCMC IT Center, only 20% of its business comes from the PSO in HCMC and the rest come from government agencies other than PSOs and the private sectors. Such business includes system development including data coding and application development.

3) Danang IT Center（Center of Statistical Information Service No.3: COSYS No.3）

Danang IT Center consists of six departments, namely Management, Software Development, Networking, Computer Distribution, Processing Data, and Administration. The total number of staff is 30, and among them 20 employees are under payroll of the GSO and the remaining 10 workers are directly hired by Danang IT Center. (All staff in Hanoi COSYS, and 25 in HCMC COSYS.). The Software Development Department of Danang IT Center is developing software for personnel management and accounting systems which were furnished by the GSO. Other development tasks include the development work obtained from the state owned companies. Major development language being used in is Visual Basic, and other languages are not used. Other business dealt with the GSO includes data encoding for population survey. Danang IT Center is also involved in sales of hardware, software, system maintenance and administration, and operation of computer schools mainly in operation of application software. (Mainly MS-Office)

(2) Enterprise database

GSO receives several technical assistance from the Swedish government SIDA, ranging from system development for creation of the enterprise databases, to the installation of system equipment, and human resource development for IT engineers and technicians. Among them, the creation of the enterprise database project is already completed, but updating works are still carried out by the three IT Centers in Hanoi, HCMC, and Da Nang. Master DB of the enterprise database is stored in the Methodology Department of GSO of which the office is located in the facility of Hanoi IT Center. The master database of the enterprise database has been updating every month, by obtaining the database on the census to the companies including state owned companies, non-state enterprises, and FDIs. These databases are also prepared by the Tax Office、the Business License Registration Bureau、and the police department and reported to each PSO and integrated in the GSO computer systems.

The list of enterprises surveyed and collected by each DSO is dispatched to the PSO by hard copy or electronic transfer. In case of file transfer via public telephone lines, the file varies depending on the facility at each DSO. Some are sent by FoxPro file, Excel file, or transferred by Unicode file. For dispatching hard copies from the DSO to the PSO, the PSO encodes the list to the computer using encoding screen created by FoxPro and transmits the file to the computer server systems of the GSO via Cute FTP. These enterprise databases are

distributed to each division among the GSO, as well as established in the Industrial and Constructional Statistics Department. However, the objectives and use of the enterprise database differ among departments, and Methodology Department is not either getting hold or updating of the use of the database in each department.

2.4.1.6 Overview of the System in the Industrial and Constructional Statistics Department

17 personal computers are connected to the GSO servers as the client terminals in the Industrial and Constructional Statistics Department. Operating systems of each client terminal consist of 16 Widows XP, and one Windows 98. Major application software running on these PCs is the Microsoft Office suit. Both FoxPro and Visual FoxPro are used for processing and analysis of current monthly survey. Other application packages specified as an analytic tool for statistics such as SPS is also used.

Three staff members, one engineer and two programmers, are assigned as system personnel. Their major responsibility is to process current monthly survey, and at the same time they are involved in system development. Also they are involved in analysis and publication of the results of the monthly survey which are sent from the PSOs and downloaded to their FTP server computers. At present, one full-time staff member is appointed as personnel in charge of handling the existing monthly survey. His major tasks are to develop programs using FoxPro and analyze the monthly survey data sent by each PSO.

2.4.2 Current Status of Computer Systems at PSO and DSO

2.4.2.1 Computer System of PSO/DSO

Status of computer installations at the PSOs and the DSOs varies greatly depending on each PSO and DSO. Likewise the installation status of the DSO also differs its affiliation with which PSO. Three locations of PSO, namely Hanoi and HCMC which are connected through LAN with the GSO, have less system size and grade but have a systems environment similar to that of the GSO systems. Also very similar are operations systems and application software packages. Among 64 PSOs, it is said that only one PSO in the country does not have connectivity with the GSO. Although, PSOs have the rest of connecting with the GSO, PSOs located in the rural region do not have sufficient system environment to connect with the GSO. The system environment at the DSO also varies depending on to which PSO does this DSO belongs to. For example, HCMC PSO has 24 DSOs under its management, most of them facilitate multiple unit of personal computers. And the Hanoi PSO has 14 DSOs under its management, all DSOs have installed personal computers and connected with Hanoi PSO systems via dial up connections. It is said, however, that these areas are well-equipped areas with computer systems.

At present, the penetration rate of the personal computers at the DSO is only 40% at the national level with poor equipments. Furthermore, it is envisioned that their computers may not compatible to support the data processing software distributed by the GSO because of computers equipped with old operation system. As stated above, it is considered that this will be major obstacles for preparation statistics systems along with the preparation of the computer and communication network infrastructure in the country.

2.4.2.2 Status of Computer Use and Proficiency Level of GSO Staff

Use of computers at the PSOs is mainly limited to the operation of application software such as Word and Excel bundled with MS-Office. These tasks include extraction of statistical data from the database and analyze using spread sheet function of Excel, and use Word for generation of an analytical report. New software development such as using simple macro commands is done within the PSO, but software with a complicated function such as a data encoding screen system and analysis software systems are developed using outsourcers such as IT Centers.

Computer use at the DSO is mainly limited to data encoding using data input screen software, file conversion from this software to analytical software such as Excel and file transfer to the PSOs. Therefore, the use at the DSO is very limited in comparison with the PSO.

The level of computer use at the PSOs and DSOs is not very low, in consideration of the fact that ordinary computer tasks are performed smoothly. However, the literacy is generally limited to operation of packaged software programs that run on the Window platform, and it does not necessarily mean that they can handle operation of new packaged software in a new system environment. It is therefore imperative to consider a computer education and training program to meet the changes in the system environment.

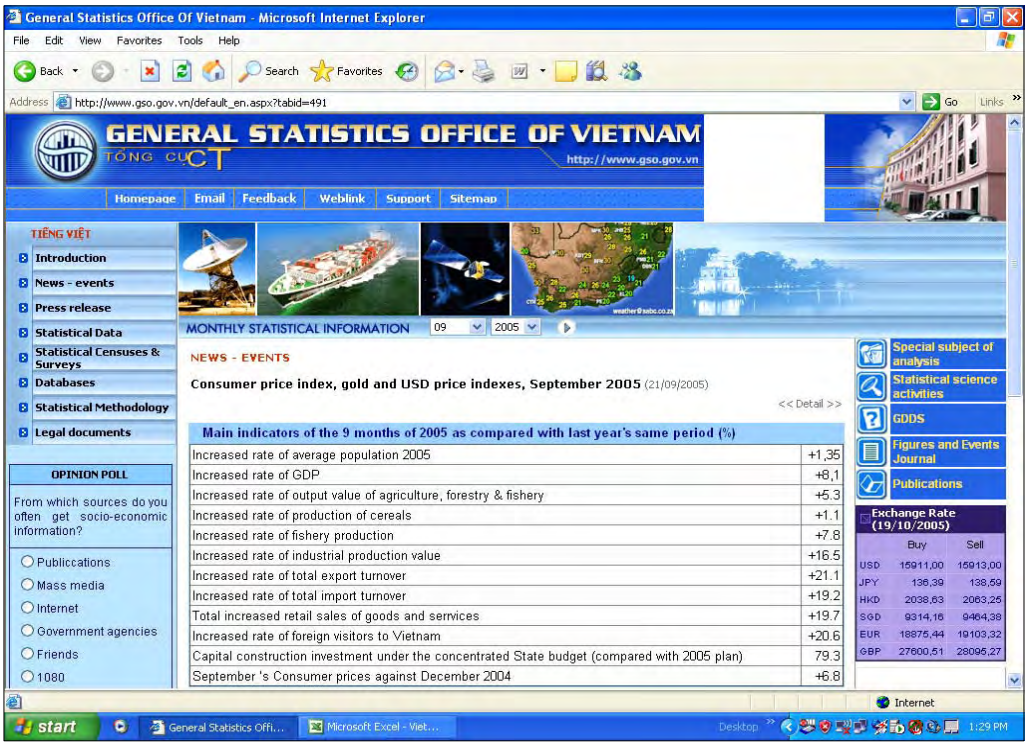
2.4.3 Current Status of Web Site Development in GSO

2.4.3.1 Current Structure of Web Site

(1) Structure of web site

The following screens show the current structure of the GSO Web site (the Web site presents information in both Vietnamese and English. Only the English portion is described in this section.)

(Portal of GSO Web site : http://www.gso.gov.vn/default_en.aspx?tabid-491)



As shown above the GSO's portal site is made up of a banner in the upper portion and three frames in the center, and 2 on both sides. An enlarged view of the left side frame is shown below. (The inside frame shown on the right indicates the contents of the frames.)

Introduction : Overall information including dispatching mails to GSO, organization, overall function, address

News-events: Economic/international/local news, economic activities, statistics activities, corporation from international organization.

Press release : Contains press release.

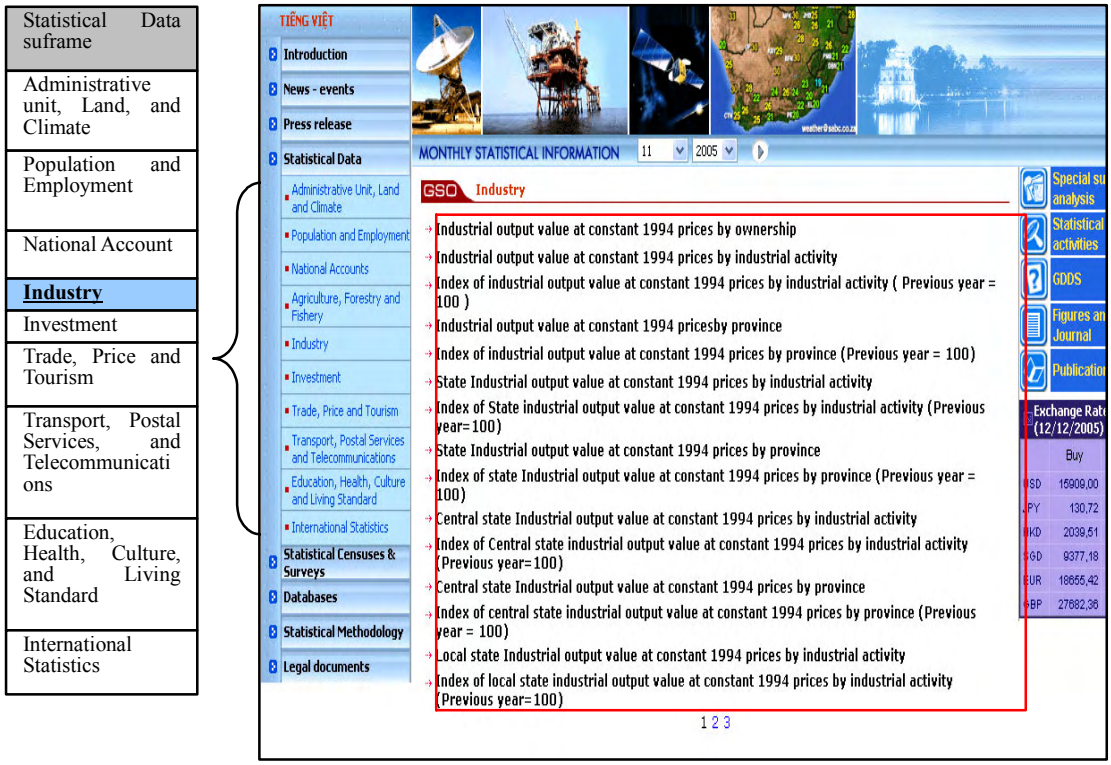
Statistical Data : Administrative unit, population, national economy, industry, agriculture, forestry, and others.

Statistical Censuses & Surveys: Population, labor power, labor statistics, investment, enterprise, household statistics

Databases : Publication of various statistics data

Data supplied from the industries and construction department will be included in above frame of (Statistical Data). When the user clicks on this frame, 10 sub-frames will be rolled out. In addition, when the user clicks on (industry) in the sub-frame, the center portion frame

will be rolled out and the publication portion will appear. Table 2-5 shows the list of publication screens.



An enlarged view of the right side frame and its content are shown below;

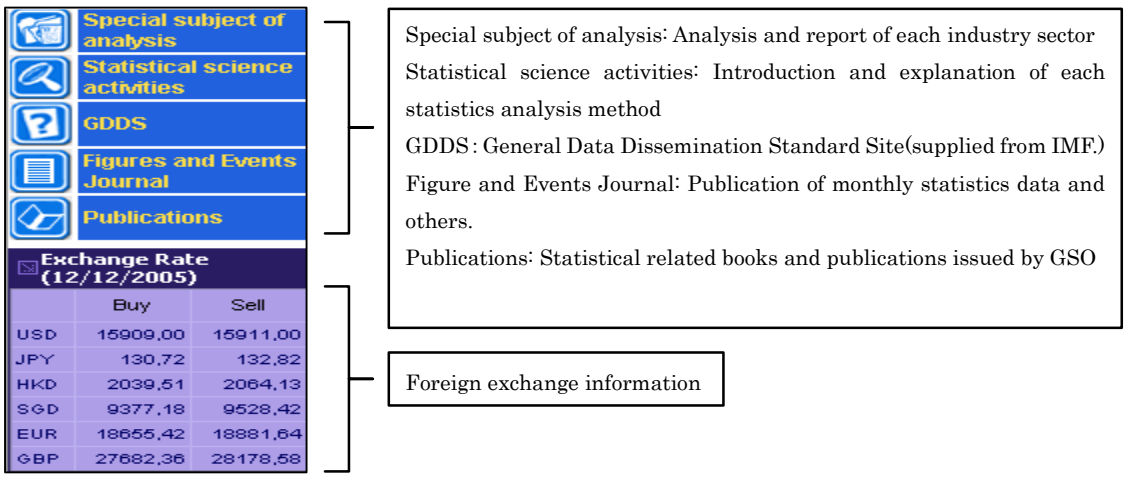


Table 2-5 Content of Web Site Publication supplied from the Industrial and Constructional Statistics Department

#	Title of Content
1.	Industrial output value at constant 1994 prices by ownership
2.	Industrial output value at constant 1994 prices by industrial activity
3.	Index of industrial output value at constant 1994 prices by industrial activity (Previous year = 100)
4.	Industrial output value at constant 1994 prices by province
5.	Industrial output value at constant 1994 prices by province
6.	Index of industrial output value at constant 1994 prices by province (Previous year = 100)
7.	State Industrial output value at constant 1994 prices by industrial activity
8.	Index of State industrial output value at constant 1994 prices by industrial activity (Previous year=100)
9.	State Industrial output value at constant 1994 prices by province
10.	Index of state Industrial output value at constant 1994 prices by province (Previous year = 100)
11.	Index of State industrial output value at constant 1994 prices by industrial activity (Previous year=100)
12.	State Industrial output value at constant 1994 prices by province
13.	Index of state Industrial output value at constant 1994 prices by province (Previous year = 100)
14.	Central state Industrial output value at constant 1994 prices by industrial activity
15.	Index of Central state industrial output value at constant 1994 prices by industrial activity (Previous year=100)
16.	Central state Industrial output value at constant 1994 prices by province
17.	Index of central state industrial output value at constant 1994 prices by province (Previous year = 100)
18.	Local state Industrial output value at constant 1994 prices by industrial activity
19.	Index of local state industrial output value at constant 1994 prices by industrial activity (Previous year=100)
20.	Local state Industrial output value at constant 1994 prices by province
21.	Index of local state industrial output value at constant 1994 prices by province (Previous year = 100)
22.	Non-State Industrial output value at constant 1994 prices by industrial activity
23.	Index of non- state industrial output value at constant 1994 prices by industrial activity (Previous year=100)
24.	Non state industrial output value at constant 1994 prices by province
25.	Index of non state industrial output value at constant 1994 prices by province (Previous

#	Title of Content
	year = 100)
26.	Industrial output value of collective economic sector at constant 1994 prices by industrial activity
27.	Index of industrial output value of collective economic sector at constant 1994 prices by industrial activity (Previous year=100)
28.	Industrial output value of private economic sector at constant 1994 prices by industrial activity
29.	Index of industrial output value of private economic sector at constant 1994 prices by industrial activity (Previous year=100)
30.	Industrial output value of households economic sector at constant 1994 prices by industrial activity
31.	Index of industrial output value of households economic sector at constant 1994 prices by industrial activity (Previous year=100)
32.	Industrial output value of foreign invested sector at constant 1994 prices by industrial activity
33.	Index of industrial output value of foreign invested sector at constant 1994 prices by industrial activity
34.	Industrial output value of foreign invested sector at constant 1994 prices by province
35.	Index of industrial output value of foreign invested sector at constant 1994 prices by province (Previous year = 100)
36.	Industrial output value at current prices by ownership
37.	Industrial output value at current prices by industrial activity
38.	Structure of industrial output value at current prices by industrial activity
39.	Industrial output value at current prices by province
40.	Structure of industrial output value at current prices by province
41.	Main industrial products

(2) Web Site Development Process

The GSO's Web site is designed and developed by the Systems Department. Content to be published will be prepared and edited by each division of the GSO and get an approval from the directors of each division and get a final authorization from the Director General of the GSO. The Systems Division will convert these files to HTML or PDF files and finally publishes at the Web site.

2.4.4 Problems and Issues Relating to System Development and Operation

2.4.4.1 Problems Relating to System Development

(1) Unbalanced Situation of Hardware and Software Installation

At the GSO, hardware systems are well equipped to meet with the current requirement among system users. In other words, hardware has well prepared rather than preparation of software to satisfy the capacity of hardware systems. That is hardware that is not efficiently used at this moment. For example, the relational database software, FoxPro, has loss its popularity that was established earlier. FoxPro is not the mainstream of RDB software at this moment. In addition, FoxPro is actually known more as a development tool rather than relational database software. Therefore, this software might be replacing from the major tool for processing of statistical data.

A software development language should also be used properly depending on the objectives of the development, so that it is necessary to consider the use of Web-based languages such as HTML, XML, and network based language such as Java. These should be considered as prerequisites for development of online encoding method of survey results, data transfer to GSO, and use the systems as online analytic tools.

(2) Unification of the Use of Software

Unification and share of server-client type of software is highly desirable, particularly a different relational database software program has been installed in each organization, even within the same department. These cases include the use of SQL Server 2000 and Visual FoxPro in GSO and IT Center, and independent use of Visual FoxPro in the Industrial and Constructional Division at GSO for data processing of the existing monthly industrial survey. The use of Oracle at the Tax Office for creation of enterprise database will be the basis of preparation for population census. However, it entails additional work for IT Centers for conversion and transmission of data to GSO.

(3) Sharing of Database

It is highly desirable to share databases which are developed for the use of enterprise databases as well as for census purposes. These databases should form the population for various kinds of surveys implemented by the GSO. Various databases transferred from the IT Centers to the GSO and the PSOs are updated and used by their own terms, however these data are not feed backed to the IT Centers. And some cases nobody knows where original data exists.

(4) Sharing of Human Resources

Also sharing human resources allocation within the GSO is required as well as the sharing between the GSOs and the IT Centers. It seems that deploying and putting the right person in the right position has not been practiced in terms of the application development as well as

software development. For example, only two staff members are engaged in programming of Visual FoxPro in the Industrial and Constructional Statistics Division at GSO. Among them only one staff is engaged in the development process of the monthly survey, creating a relatively heavy workload for him. Other case is that in Hanoi IT Center there are several engineers dealing with SQL Server, however there is no Oracle engineer.

2.4.4.2 Problems Relating to System Operation

(1) Hardware Operation

As discussed earlier, system hardware at the GSO and the PSOs is well developed and does not present a major problem relating to system operation. In particular, this is because the GSO's Systems Department and system personnel at the PSOs (mainly sent by IT Centers) handles hardware operation under technical support of manufacturers and sales distributors in the areas of operation and maintenance.

The major issue to be addressed in the future is the need for training of engineers engaged in operation and maintenance of system hardware that is expected to become increasingly complex with system and network expansion.

(2) Software Operation

Software that is used in the standalone operating environment, such as Microsoft Office, is operated smoothly without much problems. On the other hand, engineers and other technical staff need to be trained for operation of relational database software (client/server software), such as SQL server and Oracle, which will be increasingly used in the future. Also, the need for development of relational database software, especially MySQL, will emerge, together with development of application software in the open source environment led by Linux that is becoming the global platform. As it is difficult for the present resources of the GSO and the PSOs to handle these development requirements, and training should be considered in the context of HR training at IT Centers.

Chapter 3 Summary, Result and Evaluation of Trial Surveys 1 and 2

Chapter 3 Summary and Result of Trial Surveys 1, 2 and Pre-Survey

3.1 Implementation Summary of Trial Survey

3.1.1 Outline and Purpose of Trial Survey

The purpose of implementation of the trial survey is to verify a proposed "Preliminary Plan for Current Survey of Industrial Production" - formulated by the JICA study team - for its viability for the full-scale operation by General Statistics Office (GSO). Trial Survey 1 was conducted for three months during the first year of the study, and so as for Trial Survey 2 based on the result of the basic Survey, for full-scale operation of "Monthly Survey of Major Industrial Products (MSMIP). Major items for verification are as follows:

Items for verification on Trial Survey 1:

- Survey method:
  Appropriateness in terms of suitability for local conditions in Vietnam such as the content of a questionnaire, manuals including survey documents, collection method, examination method, aggregation process
- Questionnaire and survey items:
  Confirmation of collection and entry rates, and reliability of collected data
- Form of enterprise:
  Confirmation of survey methods and items on the basis of feedback
- Data for index development:
  Data acquisition as a basis of index development

Items for verification on Trial Survey 2:

Trial Survey 2 was designed and implemented based on the result of Trial Survey 1 for formalization of the current production statistics survey of Vietnam as well as a verification of the Basic Development Plan on Current Production Statistics of Vietnam, the Basic Development Plan for Production Index Development, and the collection of basic data.

- Survey method:
  Confirmation of content and promptness of manuals
- Testing the survey with establishment unit:
  Implementation of the survey with establishment unit and confirmation of its capability
- Target sector/commodity classification:
  Validation of target sectors and commodity classification (international comparability, context of actual situation of Vietnam or not)
- New index development and calculation:
  Development of international comparable index and calculation method

● Establishment of the dissemination scheme:
Establishment of dissemination content and method (confirmation on basic data accumulation, dissemination cycle, and problems)

● Promotional activity:
Promotional activities for current production statistics through a trial survey

Major differences between Trial Surveys 1 and 2 are as follows.

Table 3-1 Comparison of Trial Surveys 1 and 2

	Trial Survey 1	Trial Survey 2
No. of Target Sector	40	48
No. of Target Commodity	213	524
Target unit	Enterprise	Establishment
Planned No. of Target (Final No. of Target)	500(499)	2000 (1927)
Survey Area	3 areas (Ha Noi City, Bac Ninh Province, and Ho Chi Minh City)	9 areas (Ha Noi City, Bac Ninh Province, Vinh Phuc Province, Hai Phong City, Thanh Hoa Province, Da Nang City, Ho Chi Minh City, Dong Nai Province, and Binh Duong Province)
Survey Item	・ Quantity of production ・ Quantity of shipment ・ Quantity of ending inventory ・ Net turnover ・ Total net turnover	・ Quantity of production ・ Quantity of shipments ・ Quantity of internal consumption ・ Quantity of ending inventory ・ Value of shipment ・ Quantity of projected production for the ensuing month

3.1.2 Survey Target Selection

The trial survey is the base survey of implementation of a master plan for current production statistics in Vietnam. A full-scale survey covering nationwide could not be implemented because of constraints of time and budget, the trial survey was designed to cover a limited number of survey subjects and a limited survey period in order to obtain information useful for implementation of the master plan. Therefore, the survey populations were set at 500 enterprises for Trial Survey 1 and 2,000 establishments for Trial Survey 2 for three consecutive months (it made narrowing down the number of target sectors and areas).

Selection procedures for surveyed (areas, sectors, and commodities are as follows.

3.1.2.1 Selection of Surveyed Areas

(1) Basic Principle of Selection

Three cities/provinces were selected as areas covered by Trial Survey 1, namely Ha Noi City, Bac Ninh Province, and Ho Chi Minh City. The reason for selection is as follows.

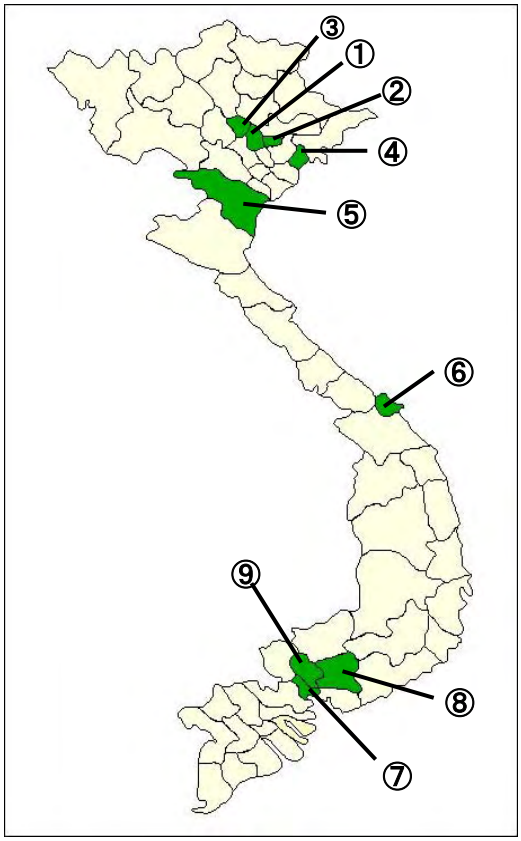
1) A combined total value of industrial output in Hanoi and Ho Chi Minh cities represents over 30% (by value) of the national output of the manufacturing industry in Vietnam (= implies as a main industrial area in Vietnam)
2) Bac Ninh Province is a small province next to Ha Noi City, but it represents a typical local industrial area of Vietnam

More specifically, the selection of the survey area was considered to achieve maximum results by narrowing down the survey area. For Trial Survey 2, a total of nine areas (four cities and five provinces) were selected as survey areas, i.e., adding six new areas that became industrialized to the three areas of Trial Survey 1 as the core area.

(2) Areas Covered by Trial Surveys

The surveyed cities and provinces were as follow (Figure 3-1).

Figure 3-1 Cities and Provinces Covered by Trial Surveys



No.	Area	Trial Survey 1	Trial Survey 2
①	North	Ha Noi City	Ha Noi City
②		Bac Ninh Province	Bac Ninh Province
③		—	Vinh Phuc Province
④		—	Hai Phong City
⑤		—	Thanh Hoa Province
⑥	Central	—	Da Nang City
⑦	South	Ho Chi Minh City	Ho Chi Minh City
⑧		—	Dong Nai Province
⑨		—	Binh Duong Province

3.1.2.2 Surveyed Sectors

(1) Basic Concept of Survey Sector Selection

In Vietnam, "Vietnam Standard Industrial Classification (VSIC)" is currently used for industrial classification. This was developed on the basis of "International Standard Industrial Classification (ISIC) version 3.0" established by the United Nations Statistics Division.

Industry in Vietnam is mainly classified to three sectors as "C: Mining and quarrying", "E: Electricity, gas, and water supply", and "D: Manufacturing". Industrial surveys are conducted based on these classifications. The industrial classifications will be applied as

integrated industrial statistics for development of the master plan for current production statistics. However, the integrated industrial statistics is the final goal, so that the surveyed sectors are basically narrowed down during the process of development and construction of the production statistics scheme. In particular, discussion with the GSO concluded that the surveyed sectors will be selected from "D: Manufacturing" at a 4-digit level. The surveyed sectors were selected by the following three steps.

The First Step:

Prior to the sector selection for the trial surveys, major industries at national level were analyzed and defined as major and important sectors of Vietnam. These sectors can be considered as key sectors required understanding the industrial trend of Vietnam and for further analyses.

The Second Step:

After defining the major sectors at national level, major industries in each surveyed city/province were analyzed and selected. The identifying of industrial trend is also important at regional level for the transition process to the current production statistics because it is currently identified on the monthly industrial sample survey as well.

The Third Step:

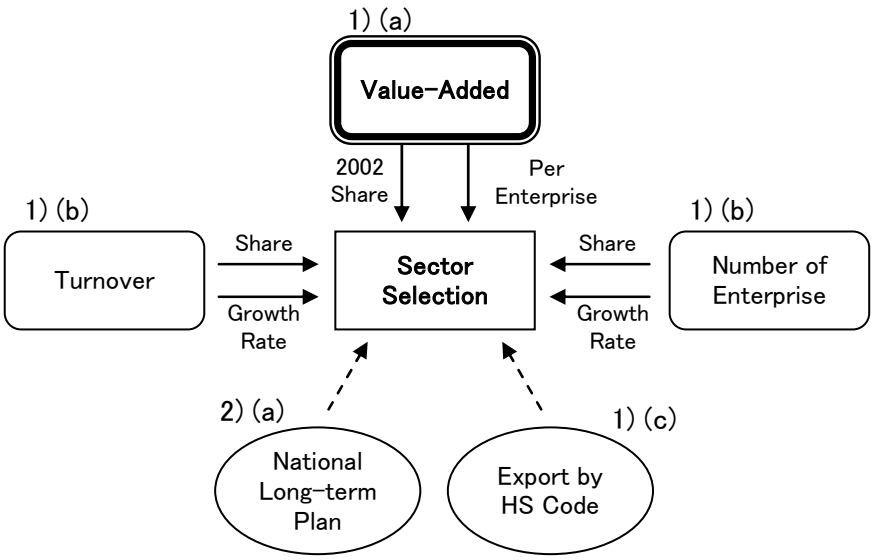
Finally, the sectors for the trial surveys were selected by the method to select main industries at regional level with major industries at national level as a key element.

The selection procedure and indicators for the trial surveys are also applied to the master plan, and the details are described as follows.

(2) Selection of Major Industrial Sectors (National Level)

Major industrial sectors were selected by using various economic data and final selection was made in overall consideration of the country's industrial and related policies as well as the level of importance (Figure 3-2). The selection criteria used are summarized as follows.

Figure 3-2 Scoring Structure for Target Manufacturing Sector Selection



1) Selection Criteria for Major Industries from the Viewpoint of Economic Data

(a) Value-Added

On the basis of value added data for VSIC 4-digit industries from the Enterprise Census of 2002, their share of the manufacturing industry was estimated and analyzed. All the sectors were then arranged in order of their share of total value added and those that accounted for a combined share of around 80% were listed.

(b) Net turnover and the number of employees by industry sector

For the net turnover and the number of employees in 2002, share of each industry was calculated. Also, a growth rate between 2001 and 2002 was computed for each industry, and industries were arranged according to their ranking.

(c) Top ten items in export statistics

Export statistics in Vietnam consist of 6-digit items that represent globally uniform names and classes of goods traded in the world market. The classification is based on HS codes that are used by major countries for tariff, statistical and similar purposes. As it is very difficult to reclassify these export items in VSIC 4-digit codes, leading export items were identified and analyzed to reflect their weight in the selection process. It was performed by using annual export statistics (indicated in HS code) that are published in International Trade Statistics by the Department of Trade, Service and Price, GSO.

2) Selection criteria for major industries from the viewpoint of policy priority

(a) Government's long-term industrial development plan

The priority industries designed by the government can be known from the government long-term development plans. From the Vietnamese government's long-term plan for the industrial sector, which is contained in "Report of the VIII Central Committee of Communist Party in the Nationwide Meeting of Representatives in IX Community Party," industries that are designated by the government as its strategic focus of development were identified and reflected in the selection process. The long-term industrial development plan contained in the report is summarized as follows.

1. Existing sectors: To give priority to development of industrial activities which can contribute to the nation's competitiveness, dominate the domestic market and penetrate into foreign markets, such as agricultural, forestry, seafood processing; garment, leather & footwear, electronics – informatics, manufacturing of mechanic products and consumption products.
2. Expansion of establishments: To construct large establishments in the fields of petroleum, metallurgy, mechanics, basic chemicals, fertilizers, construction materials in accordance with our capital resource, technology.
3. New sectors: To give priority to development of high-tech industries especially information technology, telecommunications, electronics and automation. To pay special attention to develop software industry in order to make it become the economic base with a high growth rate.
4. Objectives (numerical number): To meet the needs for construction steel materials, fertilizers; manufacturing mechanics must meet 40% of domestic demand, the localization ratio relating to production of vehicles, machinery and equipment must reach 60-70%.

Through the above indicators, the JICA study team selected candidate industries in the entire country (15 sectors). Then, the candidate list was reviewed with the counterpart in the Department of Industry and Construction of the GSO and eight industries were selected as major industries representing the country's industry. Their share in the manufacturing industry, in terms of value added, is 33.3% as of 2002 (NOTE: Output value was used as an indicator for the Trial Survey 2 since value added data was not obtained).

- 1810 Manufacture of wearing apparel, except fur apparel
- 2694 Manufacture of cement, lime and plaster
- 1553 Manufacture of malt liquors and malt
- 1600 Manufacture of tobacco products
- 1512 Processing and preserving of fish and fish products

- 3410 Manufacture of motor vehicles
- 3591 Manufacture of motorcycles
- 2101 Manufacture of pulp, paper and paperboard

(3) Sectors Covered by Trial Surveys

As described above, surveyed sectors can be narrowed down in the early development stage of the current production statistics survey. On the other hand, it is necessary to consider understanding the industrial trend at regional level during the same stage. In response to this situation, the final sector selection for the trial surveys was made by combination of national and regional levels of selection procedures.

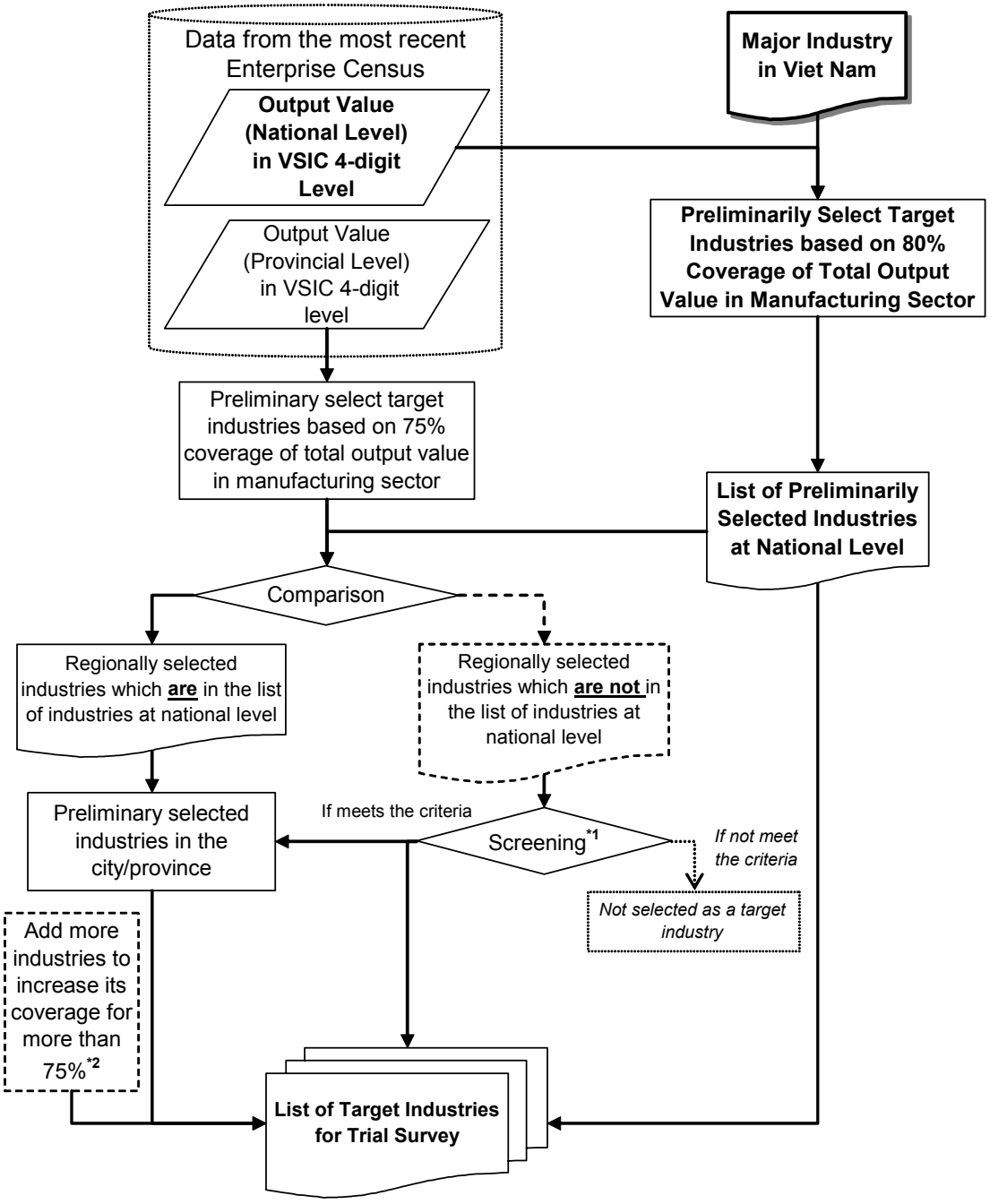
A general outline of sector selection for the trial surveys is as follows (refer to Figure 3-3).

- To select surveyed sectors at VSIC 4-digit level with the representative ratio of 80% in output value at national level, on the basis of the output value data by industrial sector (obtained from Enterprise Census of 2003 and 2004) including the major 8 sectors selected by the JICA study team (Top 37 sectors account for 80.33% of total output value of Vietnam according to the data in 2004.).
- As in the case of sector selection at national level, VSIC 4-digit sectors with the representative ratio of 75% in output value in each surveyed city/province (representative ratio differs depending on the situation of each city/province)
- Selected sectors at both city/province and national levels were compared and extracted by following adjustments:
  - Core industrial sectors at city/province level but not important at national level (→ selected)
  - Industrial sectors not in the top 75% at city/province level but important at national level (→ selected)

As a result, 40 industry sectors were selected for Trial Survey 1. For Trial Survey 2, 48 industry sectors were selected including 39 sectors that were covered by Trial Survey 1 (Table 3-2). One sector that was not selected was ”VSIC2211 Publishing of books, brochures, musical books and other publications” because of its importance at national level declined.

Selected sectors at city/province level are described in detail with the number of target establishment on the following (in this chapter 3, Page 3-16, Table 3-3).

Figure 3-3 Selection Flow of Target Sectors for Trial Surveys



*1: The screening criteria are as follows:
1-1 Whether the industry is important industry in the target area or not.
1-2 Whether the industry is categorized as "Others" of the particular sector (ex. 1729 or 3699) or not.

*2: If the selected industries are not covering more than 75% of the target area, then additional industries are selected from the list of major industries at national level.

Table 3-2 Selected Sectors and Representative Ratio in Country by Output Value

(As of 2003)

	Trial Survey 1	Trial Survey 2	VSIC	Sector	Output Value	
					Share in Nation	Cumulative
1	O	O	1512	Processing and preserving of fish and fish products	7.45%	7.45%
2	O	O	1920	Manufacture of footwear	5.04%	12.49%
3	O	O	1810	Manufacture of wearing apparel, except fur apparel	4.55%	17.03%
4	O	O	2694	Manufacture of cement, lime and plaster	4.11%	21.15%
5	O	O	3410	Manufacture of motor vehicles	4.06%	25.21%
6	O	O	2710	Manufacture of basic iron and steel	3.93%	29.14%
7	O	O	3591	Manufacture of motorcycles	3.79%	32.93%
8	O	O	1711	Preparation and spinning of textile fibres; weaving of textiles	3.43%	36.36%
9	O	O	2520	Manufacture of plastics products	3.30%	39.65%
10	O	O	1533	Manufacture of prepared animal feeds	2.92%	42.58%
11	O	O	1600	Manufacture of tobacco products	2.75%	45.33%
12	O	O	1553	Manufacture of malt liquors and malt	2.43%	47.75%
13	O	O	3610	Manufacture of furniture	2.36%	50.11%
14	–	O	1549	Manufacture of other food products n.e.c.	2.28%	52.39%
15	O	O	1531	Manufacture of grain mill products	2.02%	54.42%
16	O	O	2424	Manufacture of soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations	1.84%	56.26%
17	O	O	2693	Manufacture of structural non-refractory clay and ceramic products	1.76%	58.02%
18	O	O	2899	Manufacture of other fabricated metal products n.e.c.	1.69%	59.70%
19	O	O	1520	Manufacture of dairy products	1.54%	61.24%
20	O	O	3010	Manufacture of office, accounting and computing machinery	1.48%	62.72%
21	O	O	3130	Manufacture of insulated wire and cable	1.34%	64.06%
22	O	O	3230	Manufacture of television and radio receivers, sound or video recording or reproducing apparatus, and associated goods	1.24%	65.30%
23	O	O	2423	Manufacture of pharmaceuticals, medicinal chemicals and botanical products	1.23%	66.53%
24	O	O	3511	Building and repairing of ships	1.18%	67.71%
25	O	O	2412	Manufacture of fertilizers and nitrogen compounds	1.13%	68.84%
26	–	O	1542	Manufacture of sugar	1.12%	69.96%
27	O	O	2221	Printing	1.11%	71.08%
28	O	O	1514	Manufacture of vegetable and animal oils and fats	1.08%	72.15%
29	O	O	2811	Manufacture of structural metal products	1.05%	73.20%
30	O	O	3190	Manufacture of other electrical equipment n.e.c.	1.04%	74.24%
31	O	O	3220	Manufacture of television and radio transmitters and apparatus for line telephony and line telegraphy	0.95%	75.19%
32	O	O	2102	Manufacture of corrugated paper and paperboard and of containers of paper and paperboard	0.94%	76.14%
33	O	O	3210	Manufacture of electronic valves and tubes and other electronic components	0.92%	77.06%
34	–	O	2029	Manufacture of other products of wood; manufacture of articles of cork, straw and plaiting materials	0.87%	77.93%
35	O	O	1554	Manufacture of soft drinks; production of mineral waters	0.85%	78.77%
36	O	O	2101	Manufacture of pulp, paper and paperboard	0.80%	79.58%
37	–	O	2422	Manufacture of paints, varnishes and similar coatings, printing ink and mastics	0.75%	80.33%
38	O	O	2695	Manufacture of articles of concrete, cement and plaster	0.73%	81.06%
39	–	–	2421	Manufacture of pesticides and other agro-chemical products	0.65%	81.71%
40	–	O	2930	Manufacture of domestic appliances n.e.c.	0.65%	82.36%
41	O	O	2519	Manufacture of other rubber products	0.63%	82.99%
42	–	–	3699	Other manufacturing n.e.c.	0.63%	83.62%
43	O	O	2429	Manufacture of other chemical products n.e.c.	0.63%	84.25%
44	–	O	3430	Manufacture of parts and accessories for motor vehicles and their engines	0.62%	84.86%
45	–	–	2891	Forging, pressing, stamping and roll-forming of metal; powder metallurgy	0.62%	85.48%
46	–	O	1544	Manufacture of macaroni, noodles, couscous and similar farinaceous products	0.61%	86.09%
47	O	O	3110	Manufacture of electric motors, generators and transformers	0.60%	86.70%
48	–	O	2511	Manufacture of rubber tyres and tubes; retreading and rebuilding of rubber tyres	0.60%	87.30%
49	O	O	2109	Manufacture of other articles of paper and paperboard	0.59%	87.89%
50	–	–	2692	Manufacture of refractory ceramic products	0.57%	88.46%
51	–	O	2691	Manufacture of non-structural non-refractory ceramic ware	0.42%	88.88%
52	–	–	1912	Manufacture of luggage, handbags and the like, saddlery and harness	0.40%	89.28%
53	–	–	1729	Manufacture of other textiles n.e.c.	0.39%	89.67%
54	O	O	2610	Manufacture of glass and glass products	0.38%	90.05%
55	–	–	1513	Processing and preserving of fruit and vegetables	0.37%	90.42%
56	–	–	1532	Manufacture of starches and starch products	0.37%	90.79%
57	–	–	1541	Manufacture of bakery products	0.36%	91.15%
58	–	–	3592	Manufacture of bicycles and invalid carriages	0.36%	91.52%
59	–	–	2010	Sawmilling and planing of wood	0.35%	91.86%
60	O	–	2211	Publishing of books, brochures, musical books and other publications	0.32%	92.18%
61	–	–	1543	Manufacture of cocoa, chocolate and sugar confectionery	0.31%	92.49%
62	–	–	3120	Manufacture of electricity distribution and control apparatus	0.31%	92.80%
63	–	–	1511	Production, processing and preserving of meat and meat products	0.31%	93.10%

Source: GSO

3.1.2.3 Surveyed Commodities

(1) Basic Principle of Surveyed Commodity Selection

1) Selection Principle

Various statistical surveys are conducted and use the Industrial Commodity List that contains a total of 893 commodities primarily adopted by the Department of Industry and Construction of GSO (including 837 commodities in the manufacturing industry, classified in 5-digit codes). The Industrial Commodity List has been compiled and updated by using HS codes and incorporating lists used by other ministries and organizations. As a result, it is pointed out that it has the following problems.

- The level of segmentation is not unified and some commodities are highly segmented, while others are left at more aggregate levels.
- Commodities are listed without a detailed definition or explanation, often unclear for enumerators.
- While a comparison list for the Industrial Commodity List and VSIC Codes exists, it is not revised with the updating of the former (the most recent list was issued in 1998, "Danh Muc SAN PHAM CONG NGHIEP Vietnam (List of Industrial Commodities in Vietnam - Applied to Industrial Census dated July 1, 1998)), so that it is difficult to use for international comparison.
- Other departments of GSO do not use the Industrial Commodity List for data analysis and reporting purposes and cannot share data with each other.

Based on the problems above, the new commodity classification was made for Trial Surveys by considering the International Standard Industrial Classification and the current situation of production sites in Vietnam. As a result, the number of commodities for Trial Survey 1 was set at 213 in 40 industry sectors.

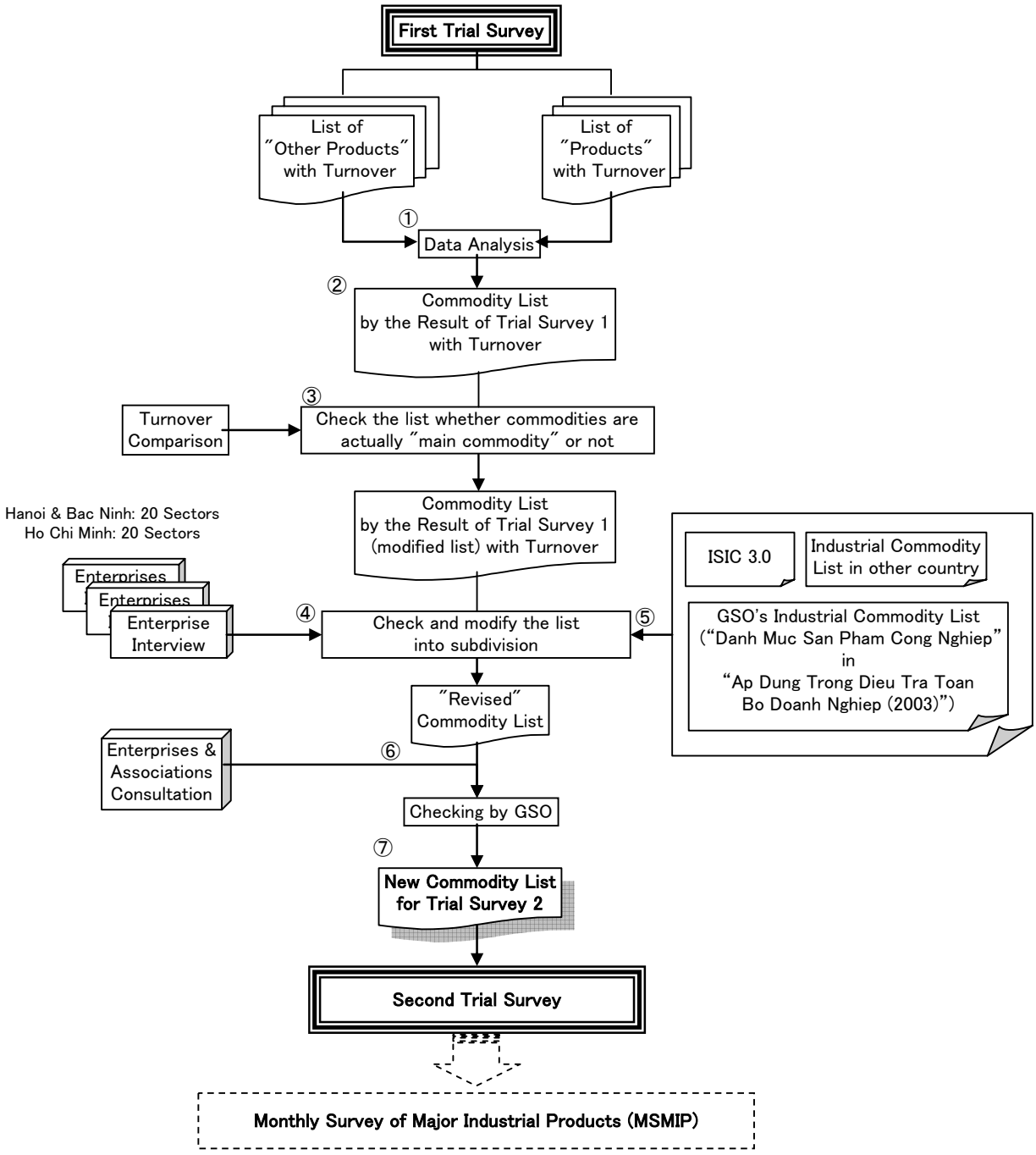
2) Commodity Selection for Trial Survey 2

Although nine new sectors were added for Trial Survey 2, the remaining 39 sectors' commodity composition was same as that for Trial Survey 1. Based on the analytical results of "Other Products" in questionnaires of Trial Survey 1, some important commodities were added to the commodity list of questionnaires for Trial Survey 2 (Figure 3-4 for the selection procedures). As a result, the number of commodities for Trial Survey 2 was increased to 524 in 48 industry sectors (Please refer to "Appendix"). It should be noted that one of the purposes of the trial surveys was to grasp as many commodities produced in Vietnam as possible. In the stage of questionnaire preparation for the basic plan implementation, commodities for which no production was reported for the two trial surveys will be withdrawn from the questionnaires after an analysis of production data of 524 commodities.

3) Adoption of Units

Unit of measurement for each commodity is adopted on the basis of general production conditions such as weight, capacity, volume, and quantity. Commodity-based statistical survey was not conducted in Vietnam, the units will be adjusted through the trial surveys and the pre-survey.

Figure 3-4 Selection Flow of Target Commodities on Trial Survey 2



3.1.2.4 Surveyed Enterprises (Establishments)

(1) Basic Principle of Surveyed Enterprise/Establishment Selection

1) Survey Unit

The current production survey should preferably be conducted for establishments, but the GSO's surveys use enterprises as a survey unit and data on establishments are limited. Thus, it was agreed with the GSO to use enterprises as a survey unit for Trial Survey 1 since the limited time to create an establishment list. On contrary, Trial Survey 2 was conducted based on a new establishment list made by extracting candidate enterprises from a database and checking whether it owns an establishment by PSO.

2) Surveyed Enterprise (Establishment) Selection

The Department of Industry and Construction of GSO updates their enterprise list every year. It has been used for selection of enterprises covered by the trial surveys. It was therefore decided to obtain the minimum-required set of data under the guidance of the Department of Industry and Construction. Specifically, the following data were obtained from the GSO database that reflected the most recent Enterprise Census (2003 and 2004) for the purpose of selecting surveyed enterprises and developing an enterprise list.

- Enterprise's Name
- Address
- Telephone Number
- Regional Code (Province, District, Commune)
- VSIC Code (4-digit)
- Tax Code
- Business Type Code
- Output Value

Based on these data, enterprises covered by Trial Survey 1 were selected by following the steps from ① to ⑥, and establishments covered by Trial Survey 2 were selected by following the steps of ① to ⑨. The conceptual diagram is as shown in Figure 3-5.

Figure 3-5 Conceptual Diagram of Target Enterprise/Establishment Selection for Trial Surveys

Trials Survey 2

Trial Survey 1

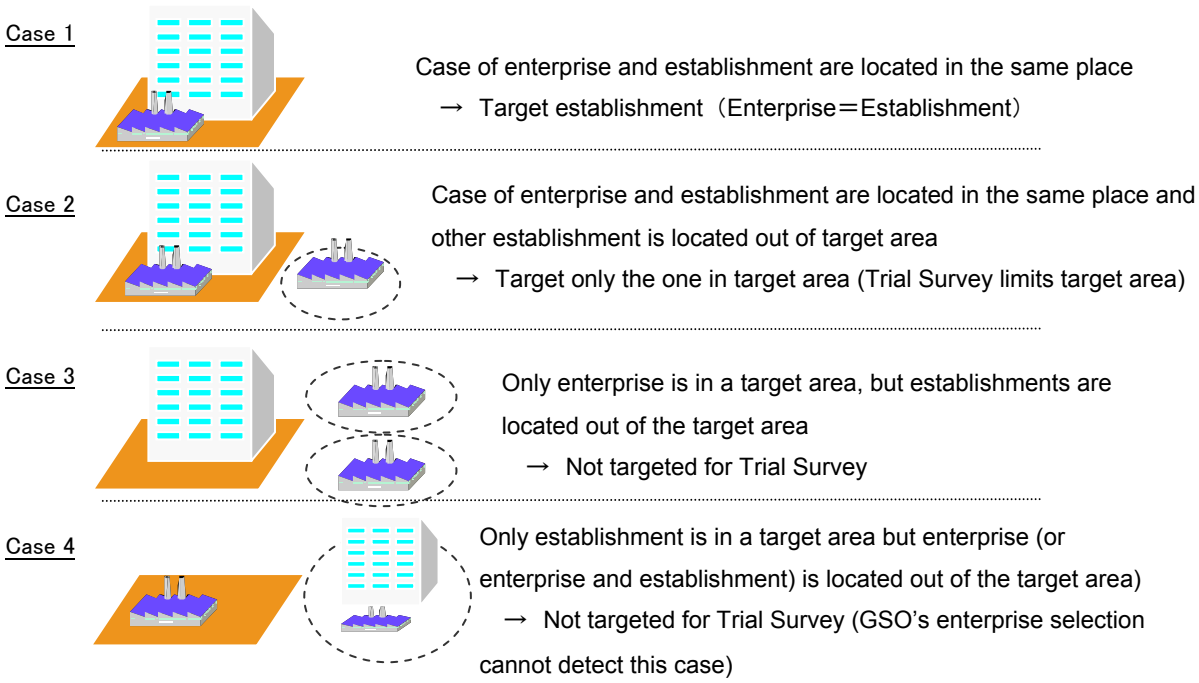
① Select enterprises according to the type of ownership, i.e., state, FDI, and non-state enterprises excepting households
② Sort output values of enterprises according to the industry sector by surveyed area
③ Calculate the output value share in each sector from the largest share enterprise
④ Set cut-off line as 75% of cumulative total of output value in each sector and select major enterprises (adjustment applied in each area)
⑤ Confirmation and adjustment of VSIC rating, business description, and regional weight on the selected enterprise list
⑥ Final screening by PSO's most current data (out of business, relocation, etc.)
⑦ Make the establishment list by adding necessary items (such as main product name) to the screened enterprise list and ascertain actual presence of establishments within each enterprise
⑧ Finalize the establishment list and send it to GSO
⑨ All the lists from 9 PSO are combined and adjust the number of target establishment up to 2000 for Trial Survey 2 by GSO if necessary

The presence of establishments should be confirmed after selecting target enterprises from the GSO database for Trial Survey 2. Thus the selection criteria were discussed for the process. Basically, an establishment that met the following requirements was selected as an n establishment to be surveyed. Otherwise, the enterprise to which the establishment belonged was selected.

- Operate in the manufacturing sector (factory) with fixed location, have production and repairing activities with engagement of people and equipment at least three months per year
- Have its own self-accounting system (in general, one enterprise owns one establishment (factory). In case that there are more than two establishments and these establishments have self-accounting system, then all such establishments would be targeted)

Trial Survey 2 covered establishments of cases 1 and 2 in Figure 3-6. Cases 3 and 4 will be covered upon the expanding the survey areas.

Figure 3-6 Concept of Target Establishment for Trial Survey 2



As a result, 500 enterprises were selected for Trial Survey 1 and 1,927 establishments for Trial Survey 2. The breakdown of surveyed enterprises/establishments by industry sector and by province is as shown in Table 3-3.

Table 3-3 Number of Enterprises (Establishments) Covered by Trial Surveys

VSIC	Trial Survey 1				Trial Survey 2									
	Tổng 3 tỉnh	Hà Nội	Bình Dương	TP Hồ Chí Minh	Tổng 9 tỉnh	Hà Nội	Hải Phòng	Vĩnh Phúc	Bắc Ninh	Thanh Hoá	Đà Nẵng	Đồng Nai	Bình Dương	TP Hồ Chí Minh
TOTAL	500	175	65	260	1927	350	200	66	135	120	176	187	292	401
1512	22	4	—	18	56	3	12	—	—	6	11	2	5	17
1514	1			1	5	—	—	3	—	—	—	1	—	1
1520	1	—	—	1	4	1	—	—	—	—	—	—	2	1
1531	3			3	12	0	—	—	2	—	—	—	7	3
1533	9	8	1	—	34	11	3	2	1	3	4	6	4	0
1542	0				7	—	—	—	—	3	—	2	1	1
1544	0	—	—	—	5	—	—	—	—	—	—	1	—	4
1549	0				47	9	4	2	1	1	1	4	13	12
1553	7	3	2	2	19	4	6	2	2	1	2	1	—	1
1554	3			3	28	11	—	2	—	2	3	2	5	3
1600	5	2	1	2	9	1	2	—	1	1	1	1	—	2
1711	14	4		10	50	8	1	4	4	1	8	6	8	10
1810	68	18	2	48	142	26	20	5	4	8	10	11	12	46
1920	13	5		8	65	7	22	2	—	2	3	6	15	8
2029	0	—	—	—	93	11	—	1	—	13	7	9	33	19
2101	9		9		84	6	4	—	40	6	9	—	5	14
2102	20	—	—	20	60	—	10	1	2	2	12	3	12	18
2109	26	13	13		34	14	3	—	3	2	6	2	3	1
2211	2	2	—	—	—	—	—	—	—	—	—	—	—	—
2221	28	14	—	14	50	16	4	1	—	8	5	1	—	15
2412	2	—	—	2	15	1	—	—	—	7	2	1	3	1
2422	0	—	—	—	32	5	2	—	1	—	—	5	14	5
2423	18	6	—	12	35	6	1	2	1	—	2	6	6	11
2424	2	—	—	2	17	2	4	1	—	—	—	4	4	2
2429	4	4	—	—	22	4	2	1	1	—	1	4	9	0
2511	0	—	—	—	6	—	—	1	—	—	1	1	—	3
2519	10	—	—	10	49	8	5	—	—	—	—	7	—	29
2520	78	27	—	51	154	40	14	3	2	5	11	10	20	49
2610	2	—	2	—	16	4	3	1	2	1	1	—	—	4
2691	0	—	—	—	33	1	—	—	1	1	—	2	28	0
2693	6	6	—	—	79	9	4	14	3	14	7	15	11	2
2694	3	1	—	2	15	—	5	—	—	3	2	1	2	2
2695	7	7	—	—	40	13	3	3	1	3	4	3	—	10
2710	14	6	5	3	63	10	15	1	8	2	17	2	4	4
2811	9	9	—	—	86	13	4	—	6	7	16	8	1	31
2899	32	—	12	20	100	31	9	2	13	3	9	5	10	18
2930	0	—	—	—	22	7	2	—	1	2	—	1	2	7
*3000	1	1	—	—	12	1	3	—	—	—	—	3	1	4
3110	3	3	—	—	9	4	—	—	1	—	—	3	—	1
3130	6	4	—	2	16	7	4	—	—	—	—	3	—	2
3190	7	5	—	2	18	6	1	—	2	1	2	2	2	2
3210	4	4	—	—	15	3	1	1	—	—	—	1	4	5
3220	2	—	—	2	6	3	—	—	—	—	—	2	—	1
3230	9	4	—	5	11	4	1	—	—	—	—	1	—	5
3410	7	4	—	3	16	7	2	1	—	1	—	1	1	3
3430	0	—	—	—	24	3	—	1	1	—	—	12	—	7
3511	5	—	—	5	25	—	16	—	1	3	1	—	—	4
3591	11	11	—	—	29	14	5	1	—	—	3	2	—	4
3610	27	—	18	9	158	16	3	8	30	8	15	24	45	9

Note: "3000" is equivalent to "3010" in Tiral Survey 1

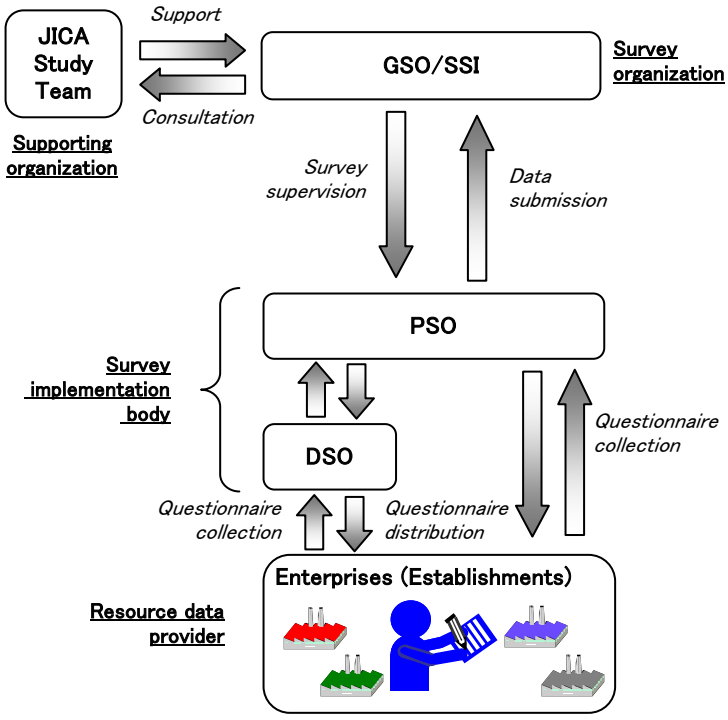
3.1.3 Survey System and Methodology

3.1.3.1 Survey Implementation System

(1) Implementation System for Trial Surveys

The trial surveys were conducted by a local organization under the commissioning of the JICA study team. Several candidate organizations including a private research establishment were compared and evaluated. In the process, it was confirmed that, as the current production statistics survey would be conducted under the leadership of the GSO's Industrial and Constructional Statistics Department, the GSO's present survey system should be analyzed and evaluate as part of the development study. In consideration of this factor, it was decided to commission the trial surveys to the Institute of Statistical Science (SSI), an independent but affiliated research organization, which would use the GSO's statistical survey organization (network) including the PSOs and DSOs (Figure 3-7). As shown here, the SSI's role was to supervise the GSO's survey organization, which field survey activities were conducted by the GSO and the PSOs under technical support of the JICA study team.

Figure 3-7 Implementation Structure for Trial Survey



3.1.3.2 Implementation Schedule

(1) Implementation Period of Trial Survey

For Trial Surveys 1 and 2, a reference month was set for a period of three months from October to December 2004 and 2005, respectively. Therefore, a collection period was also three months between November 2004 and January 2005 and between November 2005 and January 2006, respectively.

Because both government offices and enterprises are closed for Tet Holiday (Vietnam's New Year holiday) form the end of January to the beginning of February for a week, it may be difficult to conduct survey activities and to obtain the sequence data. For this reason, the survey schedule to complete questionnaire collection was set at the end of January (Table 3-4).

The reference month refers to a calendar month, from the first day of the month until the last day of the month.

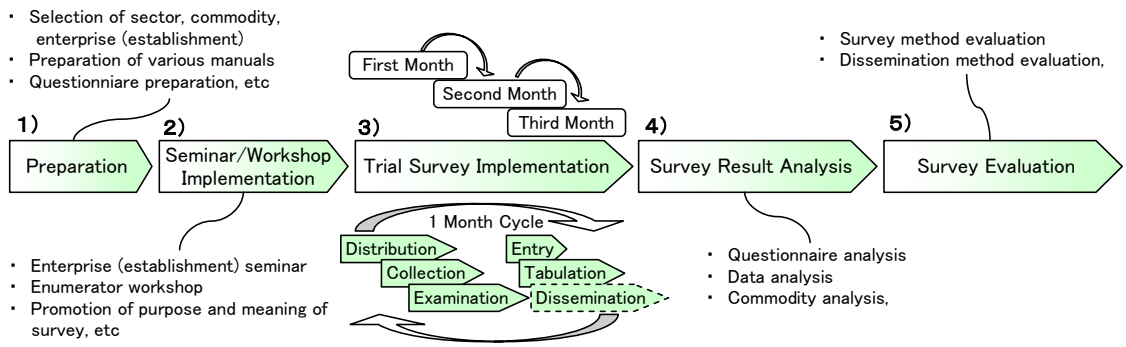
Table 3-4 Implementation Period of Trial Surveys

Trial Survey 1			Trial Survey 2		
Reference Month		Collection Month	Reference Month		Collection Month
October 2004	➪	November 2004	October 2005	➪	November 2005
November 2004	➪	December 2004	November 2005	➪	December 2005
December 2004	➪	January 2005	December 2005	➪	January 2006

(2) General Work Flow for Trial Surveys

The trial surveys were conducted in the following workflow ranging from preparation to implementation and analysis of results, which extended beyond the actual survey period, as described in the following sections (Figure 3-8).

Figure 3-8 Flow of Trial Survey



1) Preparation

Preparation for the trial surveys consisted of preparatory work such as printing of questionnaires and manuals and presentation meetings for enumerators and surveyed enterprises.

The preparatory work included the selection of surveyed industries, areas, commodities, and enterprises (establishments) and the designing and printing of questionnaires and manuals (for enumerators and data input).

The study team discussed with the PSOs on the work schedule, starting in late August, and the GSO issued a formal notice to each PSO by mid-September. The workshops for enumerators were held in September at the PSOs in cities and provinces covered by the survey, and the seminars for surveyed enterprises were held in September or October.

2) Implementation of Presentation Meetings

(a) Presentation Meetings for PSO and DSO Enumerators

The presentation meeting was held at each PSO in the form of workshop by showing implementation guidelines, questionnaires, and manuals prepared by the study team. The objective of the meeting was to explain the concept and necessity of current production statistics as well as the survey implementation method to enumerators in order to share common recognition and understanding among the PSO and DSO staff (enumerators) in the survey area.

(b) Presentation Meetings for Surveyed Enterprises (Establishments)

The objective of the presentation meeting was to explain significance and value of data collected from the current production statistics survey to representatives of surveyed enterprises (establishments) to promote understanding. Then, detailed explanation on the trial survey including entry procedures was made and cooperation in the survey was solicited. The meetings were held during the same period as the workshops for enumerators or in the subsequent month by using implementation guidelines, questionnaires, and manuals prepared by the study team.

Details of the seminars and workshops are discussed in Chapter 4.

3.1.3.3 Implementation of Trial Surveys

(1) Distribution of Questionnaire

The PSO and DSO enumerators started distribution of questionnaires on 21st of the surveyed month (October 21 in the first month) by visiting enterprises (establishments) in the formal list (Note that questionnaires were distributed each month during the survey period in order to prevent loss, but three sets were delivered at once when so requested by an enterprise.). Upon visit, the enumerator explained the trial survey and its objective, solicited

cooperation, and explained entry procedures. Also, the scheduled date to collect the questionnaire was notified.

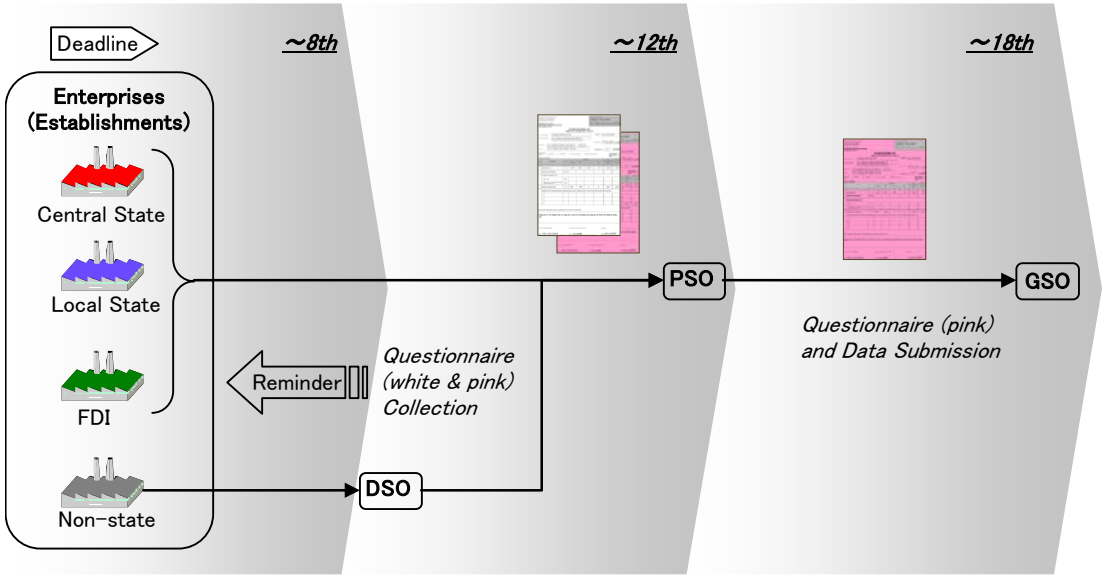
(2) Collection of Questionnaires

Questionnaires were collected by the PSO or DSO enumerators who visited the surveyed enterprises, while submission by facsimile or e-mail was accepted in exceptional cases. The following rules were set for questionnaire collection.

1) The enumerator checks the completed questionnaire upon receipt to see whether it has been filled out properly and legibly.
2) If a surveyed enterprise (establishment) fails to submit the questionnaire by the specified date, the PSO or DSO enumerator contacts the representative of the enterprise and requests prompt submission, while notifying his or her supervisor of the delay.
3) The reminder is made around two days before the deadline, although each PSO or DSO may set its own date.
4) The third page of the questionnaire (yellow sheet) is retained by the respondent and the first and second pages are collected by the enumerator. The first page is retained by the PSO and the second page by the GSO (See Figure3-9).

While the above rules will be adopted for the official survey (after institutionalization), the three-page questionnaire should be modified by proposing one-page questionnaire because some troubles were experienced during the trial surveys.

Figure 3-9 Questionnaire Collection Cycle (Example)



(3) Examination of Collected Questionnaires

As mentioned in the previous section, the enumerator checked the completed questionnaire according to the examination manual and made necessary correction as required by confirming the enterprise. Then, the collected questionnaire was checked at the PSO or DSO by other enumerator or personnel in charge of data input. The following items were examined.

1) Basic information

Information on the surveyed enterprise (establishment), including the name of the enterprise (establishment), address, tax code, form of ownership, telephone number, the name of the contact person, and the surveyed month, which are essential in keeping the enterprise (establishment) list updated and need to be checked for any change.

2) Balance between entries

Entries to survey questions on commodity information were checked for any omission and balance (logic) between key items (production, shipment, internal consumption, inventory, etc.).

3) Unit

Incorrect entries relating to unit of measurement, such as use of an incorrect unit (e.g., “ton” instead of “kg” or omission of “million dong” to indicate the value of shipments)

4) Numeration system

Some items asked the indication of fraction numbers by rounding to the second decimal place and actual entries were checked to see if they comply with the rule. Also, incorrect entries relating to the position or indication of the decimal point (difference between “,” and “.” between local and foreign enterprises) were checked.

5) Other Products

Entry errors relating to other product, e.g., whether a product that is printed in a question section were entered as other product, and an entered other product was matched with industry of a questionnaire, were checked.

The above examination rules will be applied to the official survey (after institutionalization).

(4) Data Input (conducted between 14th and 17th of the month following the surveyed month)

All questionnaires were collected at each PSO where data input was made, and the DSO enumerators were not involved in data input. Entries in collected questionnaires (after examination) were input by the PSO staff (data input personnel or enumerator) in the same manner as the ongoing Monthly Industrial Sample Survey. Input data were transmitted to the GSO on a specific date of the surveyed month (17th or 18th in every month). Major features

and functions of the data input software and system are summarized as follows (see Chapter 6 for more discussion).

1) Data Processing Software

As a result of discussion between the GSO and the JICA study team, it was decided to adopt Visual FoxPro to develop a data processing system for the trial surveys. Visual FoxPro is a database management software program widely used by the GSO and the PSOs and their staff is familiar with its operation. In particular, the software program is pre-installed with the enterprise list for Trial Survey 1 (including data from the existing corporate census, such as address and telephone number), a commodity list, and province codes, facilitating the data input operator to make a quick search on enterprises. In addition, Visual FoxPro has print and help (showing the data input manual) functions.

2) Automatic Examination on Data Input

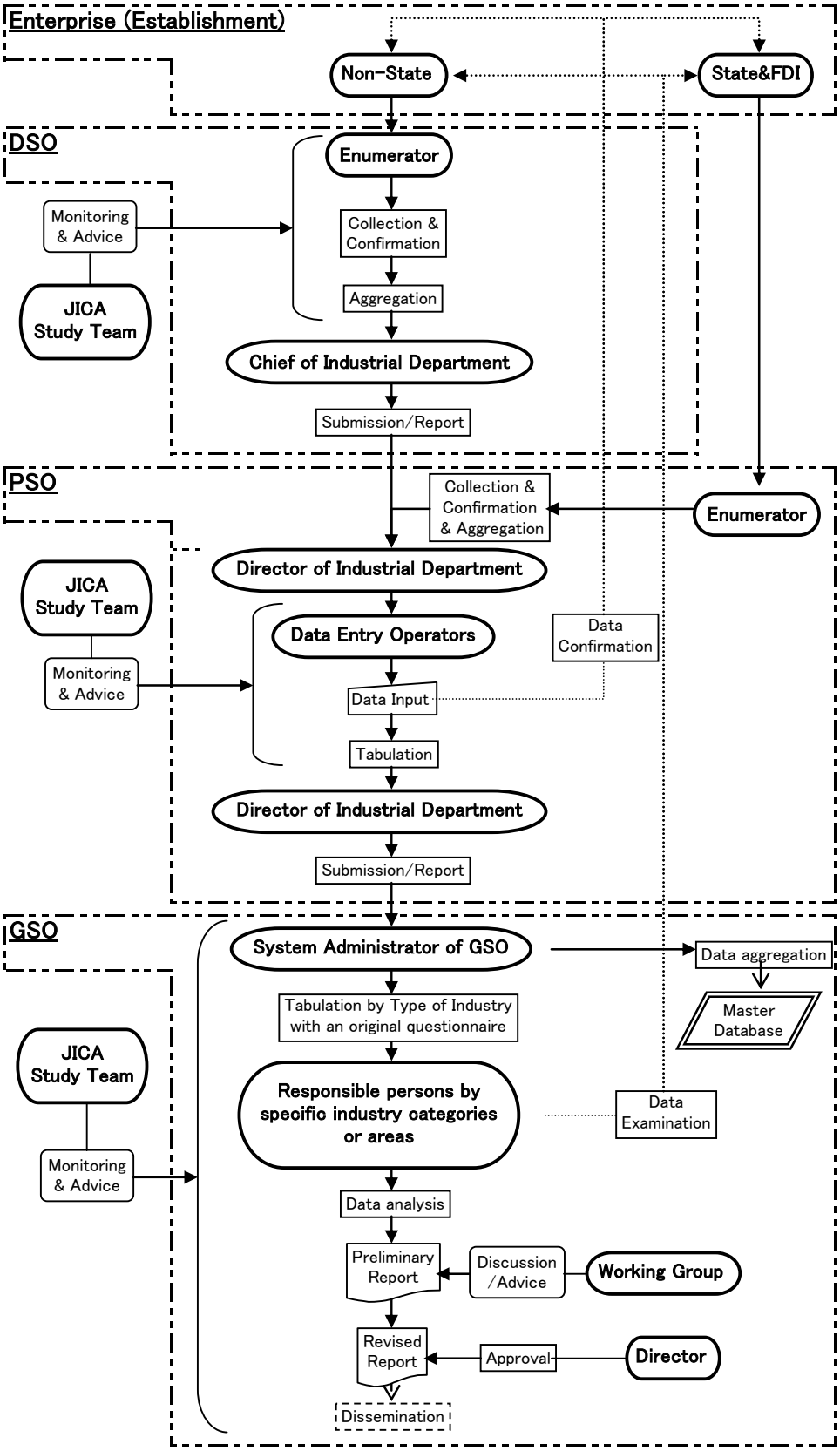
The data input software is capable of performing automatic error checks. This function finds errors relating to figures written in the questionnaire at the surveyed enterprise and data input at the PSO. In particular, the software can detect and alert the following anomalies.

1. Inventory balance: When the quantity of production exceeds twice or falls below one half a sum of shipments and inventories
2. Comparison with the previous term: When the quantity of production or shipments in a reference month exceeds three times that in the previous month
3. Price check: When the total shipment price of a product (value of shipments/quantity of shipments) of an establishment exceeds twice that of the same product made by other establishment
4. Blank check: When any item indicating the quantity of production, shipments, inventories, internal consumption or projected production is left blank.

(5) Data Tabulation and Publication (on or before 25th of the month following the surveyed month)

Data sent from each PSO to the GSO were promptly tabulated and analyzed at the Industrial and Constructional Statistics Department. Publication planned to make on the GSO's Web site only but it turned out that the tabulation was made only in the GSO. It is said that one of the important objectives of the trial surveys were to check if the above work cycle is smoothly executed (Figure3-10).

Figure 3-10 Implementation Flow of Trial Survey



3.1.4 Survey Items and Questionnaires

3.1.4.1 Survey Items and Definition of Terms

(1) Survey Items for Trial Survey

While the ongoing survey is designed to monitor business activities, the current production survey including Trial Surveys have the primary purpose of grasping the volume of production by commodity. As a result, Trial Surveys focused on the following information.

1) Product-related items

For each commodity, the following information was collected.

(a) Quantity of Production

This covers products that have been actually manufactured or processed at a factory and has passed inspection (excluding repaired, modified or regenerated ones, as well as work-in-progress), including products directly produced by an enterprise using its own materials and products manufactured for other enterprise using other enterprise's materials

(b) Quantity of Shipments

This item refers to the quantity of products that have been made and shipped actually (including those accepted), not including those made by other enterprise using the surveyed enterprise's materials or those internally consumed.

(c) Quantity of Internal Consumption

This means the quantity of products that are used, in the subsequent production process at the same factory, as a material or an intermediate product for the manufacture of a new product.

※ *This is not asked in Trial Survey 1.*

(d) Quantity of Ending Inventory

This means the inventory quantity of a commodity (listed in the questionnaire) manufactured by the surveyed enterprise as of the end of the survey month, excluding products made by other enterprise using the surveyed enterprise's work-in-process or materials. In particular, the item refers to inventory of the surveyed enterprise's products kept by the enterprise or stored in a warehouse or other storage place that is rented under the name of the enterprise.

(e) Value of Shipments by Million Dong

The value of shipments is calculated by multiplying the quantity of shipments by the unit price, as indicated in the invoice (not including VAT) and should be indicated in million dong.

※ *Trial Survey 1 asked product sales.*

(f) Total Net Turnover

This is the total turnover (excluding tax) made by business activities of the surveyed company during the survey period, including product sales, service, fees interest income, royalties (copyright, etc.) and dividends. It is analyzed together with the net turnover to confirm that monetary Figures reported in the questionnaire are correct.

※ *This was not the survey item for Trial Survey 2.*

(g) Projected Production Quantity for the Ensuing Month

This means the production quantity projected for the month following the surveyed month, as calculated on the basis of quantity of production for the surveyed month.

※ *This is not asked in Trial Survey 1.*

(h) Remarks

This column is reserved to state a reason for any substantial change in quantity or value of production or other items between the surveyed previous month and the reference month.

2) Enterprise (establishment)-related Items

The questionnaire included questions to ask specific information on each enterprise (establishment), which was partly used to update the corporate database as the address or other information of enterprise (establishment) changes.

- Enterprise's name
- Tax code
- Address
- Form of ownership (state (central and local), foreign, non-state)
- Name of respondent (usually accountant)
- Telephone
- Month surveyed

3) Items relating to Trial Survey 1

Other than above question items, the surveys also checked what responding enterprises thought about the survey, in particular, the following information:

- Time required for completion (calculation and entry to the questionnaire)
- Level of difficulty in responding to each question (in particular, inventory information was asked for the first time)
- Expectation for monthly statistics of current production by commodity (as potential user)

4) Other Items

Finally, the questionnaire asked signatures of the respondent and the representative of the enterprise and the date of entry in order to ensure that they are responsible for their response.

3.1.4.2 Questionnaires for Trial Surveys

(1) Outline of Questionnaire

The questionnaire was a single page with double side printing and designed for each industrial sector, with the front side printing questions and providing a space for response, and the backside showing instructions to the respondent. A total of forty forms for Trial Survey 1 and forty-eight forms were printed and used.

Each questionnaire used three carbon papers to produce copies for the PSO (white), the GSO (pink color), and the responding enterprise (yellow), compared to the previous form that did not use a carbon paper (Figure 3-11).

Front Side

On the front side, "questions on the enterprise," "questions on products," "questions on Trial Survey" and "other questions" are printed. The enterprise responds to these questions only ("questions on Trial Survey" was only used for Trial Survey 1).

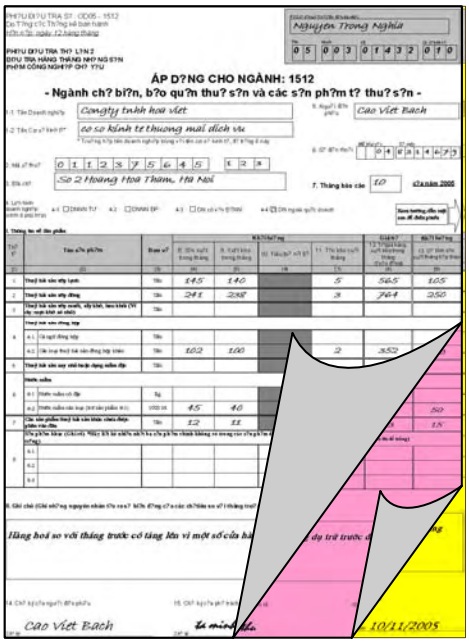
It also has a commodity column where the commodity name is printed with a space where the respondent can enter products that do not belong to the specified product category. This provides information useful for reviewing the commodity list after completion of Trial Survey.

Back side

"Instruction to the respondent" and "detailed description of the commodity" are printed on the backside of the questionnaire (third page) in order to prevent an error in entry by providing supplemental information on the commodity for which the respondent is expected to report.

Figure 3-11 Questionnaire for Trial Survey (Sample of Trial Survey 2)

Front Side



Back Side

3.2 Analysis of Results of Trial Surveys

3.2.1 Collection, Examination and Input

3.2.1.1 Analysis of Questionnaire Collection Results

Both Trial Surveys 1 and 2 recorded very high final response rates, ranging between 90% and 100% in all the cities and provinces, probably because of the reporting system that is currently applied in Vietnam. However, response rates up to the collection deadline were generally low, with geographical variations (Table 3-5).

Figure 3-5 Response Rate (Example of Trial Survey 2, average of 3 months)

Area	No. of Establishment	Response Rate by Collection Deadline (12th)	Final Response Rate (23rd)
Ha Noi	350	296 (84.7%)	349 (99.7%)
Hai Phong	200	147 (73.8%)	200 (100%)
Vinh Phuc	66	51 (77.3%)	66 (100%)
Bac Ninh	135	125 (92.8%)	135 (100%)
Thanh Hoa	119	103 (86.3%)	119 (100%)
Da Nang	176	73 (41.7%)	174 (98.7%)
Ho Chi Minh	400	296 (74.1%)	395 (98.8%)
Dong Nai	187	119 (63.5%)	187 (100%)
Binh Duong	292	139 (47.6%)	349 (99.7%)

Note: Estimated numbers were included in the number of collected questionnaires

The low response rates up to the collection deadline seem to come from the following reasons.

- As the trial surveys were conducted in parallel to the Monthly Industrial Sample Survey, the PSO gave priority to the latter and opted to collect questionnaires for the trial surveys after the ongoing survey, as enumerators were burdened with heavy workloads.
- Foreign enterprises were generally late for submission because their internal approval procedures were delayed or foreign managers did not understand the need for the statistical survey.
- Some PSOs confused the data collection deadline (12th) with the submission deadline (18th).
- There was a difference in response rate between PSOs due to the difference in level of preparation, e.g., a PSO checked carefully the possible submission date before the deadline and recorded a high response rate.

In addition to the above causes, a few day delays occur in questionnaire collection for the ongoing Monthly Industrial Sample Survey. Thus, this seems to be a problem that has continued from the previous surveys, rather than a startup problem related to a new survey.

3.2.1.2 Analysis of Questionnaire Examination Results

While examination of collected questionnaires for the trial surveys was conducted by PSO and DSO enumerators, the JICA study team examined and analyzed questionnaire entries. As a result, the following problems were found.

(1) Basic Information

- Tax code was omitted by several respondents.
- Also, some questionnaires did not have address or telephone number.
- The name of the respondent was also missing.

Omission seems to occur because respondents are requested to write the same information each month, and some enumerators may accept omission of basic information, as they know respondents well.

(2) Survey Items

Many respondents felt that it would be relatively easy to fill out the questionnaire because survey items were mainly concerned with business accounting. However, the following problems were observed.

- A relatively large number of questionnaires did not have inventory data, probably because it was not consuetude for them to check inventories the end of month, as many enterprises took inventory one or twice per year (Some enterprises seem to have written inaccurate figures, which have led to negative inventories.).
- Similarly, the quantity of projected production was omitted in many questionnaires.

This is because they have not reported the inventory quantity to the statistical office.

(3) Balance between Entries

This was checked for omissions and entry errors. As a result, the following problems were identified.

- While “0” was entered for shipment figures, sales were reported.
- Many numbers were illegible because of rough handwriting.
- Some figures seemed to be incorrect due to confusion about decimal point or notation to separate the thousands (e.g., the quantity of production was indicated in extremely large figures).
- Omissions in data entry were observed in many questionnaires (e.g., only production data were written).
- Zero was indicated in various ways, including “-“ and “zero.”

In addition, many respondents failed to enter quantities of internal consumption and inventory or indicated “-“, while indicating quantities of production and shipments.

Although the instruction emphasized the use of "0" to avoid disturbance with error check work on the seminars, it was not communicated well to a sizable number of respondents.

(4) Unit

There were many questions from surveyed enterprises concerning the unit of indication, because they often used different units for product management or commercial transaction from those specified in the questionnaire.

- There were some cases of confusion between "ton" and "kg" and between "1,000 pieces" and "pieces" (They were found from obviously too high or low unit prices.).
- Small enterprises had to use decimal figures under the unit of "ton" or "million VND." This was true for commodities that were produced in small quantities.
- The value of shipments, which was supposed to be indicated in "Million Dong," was sometimes indicated in "Dong" or "Thousand Dong."
- Some respondents used their internal unit by rewriting the unit printed in the questionnaire.

Examples of the case when different units for product management or commercial transaction were used from those specified in the questionnaire are summarized below.

Table 3-6 Inquires from Enterprises on Units

VSIC	Sector	Units applied in questionnaire	Units applied in enterprise
2423	Pharmaceuticals, medicinal chemicals, etc.	1,000 ampoules	Liter
2424	Tooth-paste	1,000 tubes	Ton
3130	Insulated winding wire	Ton	Km
3130	Co-axial cable and other co-axial electric conductors	1,000 m	Ton

In some cases, the GSO staff converted figures indicated in different units by checking the conversion method with surveyed enterprises. Also, some enterprises that exported products indicated sales in U.S. dollar, which were then converted to the dong by the PSO staff. This is because that the method of the ongoing Monthly Industrial Sample Survey was applied directly.

(5) Numeral System

- Position or indication of decimal point, i.e., use of comma and period, was not unified.
- The two-digit rule for indication after the decimal point was not followed and three- or one-digit was used frequently (Some questionnaires used different decimal points in the same questionnaire.).

(6) Other Products

The share of "Other Products" was 14~18 % in total by value basis even considered the variation by month. The following points are noted regarding the contents of "Other Products."

1) Commodities that were printed in the questionnaire were included in "Other Products."

Table 3-7 shows industries that reported more products, which were printed in the questionnaire, as "Other Products." In particular, there were many cases where respondents did not read the explanation on commodities and their names on the rear side and included products in "Other Products" without thinking much.

Table 3-7 Main Sectors with Large Amount of Other Products

VSIC	Products
1544	Noodles
1549	Other food
1810	Wearing apparel
1920	Footwear
2029	Other woods
2221	Printing
2519	Other rubber

VSIC	Products
2520	Plastics
3110	Electric motors/generators
3130	Insulated wire & cable
3410	Motor vehicles
3430	Motor vehicle parts & accessories
3610	Furniture

2) Many establishments received incorrect questionnaires and inevitably classified their products in "Other Products."

In many questionnaires, entries were made in the "Other Products" category only, while no entry was found in the preprinted commodity columns. Analysis of these questionnaires revealed that products included in "Other Products" were often not specified in the respective questionnaires. Clearly, this is the result of distribution of wrong questionnaires. To prevent this, the proper updating of the enterprise (establishment) list and the correct matching between questionnaires and enterprises are required.

3) Other industries

As for industries classified as "other industries (designated as "***9" in VSIC 4-digit classification)", enterprises (establishments) did not always made commodities printed in the questionnaire because the industry sector covers a vast range of products. As it is very difficult to identify major products for this sector, selection of surveyed industries should be reconsidered.

Thus, a small percentage of establishments make correct entry in compliance with instructions given at the presentation meeting for surveyed enterprises, although it may partly due to the difference in the entry rules between the ongoing Monthly Industrial Sample

Survey and the trial surveys. Thus, careful examination and guidance by the PSO and DSO enumerators is important, although there are other factors involved, such as concurrent implementation with the ongoing Monthly Industrial Sample Survey and entry error due to the lack of experience caused by a short survey period.

(7) Incorrect classification of enterprises

In principle, enterprises are classified according to their main products (commodity showing the highest share in total sales). Analysis of collected questionnaires revealed, however, many cases of mismatching between classification and actual products. Table 3-8 shows industries for which such mismatching were more frequently seen.

Table 3-8 Major Incorrect Classification of Enterprises

Case	Improper Classification			Proper Classification	
A	2693	Structural non-refractory clay & ceramics	→	2691	Non-structural & non-refractory ceramics
A	2519	Other rubber	→	2520	Plastics
B	3430	Motor vehicle parts & accessories	→	3591	Motorcycles
B	1810	Wearing apparel	→	3610	Furniture
A	2101	Pulp, paper, paperboard	→	2102	Corrugated paper
A	2109	Other paper	→	2101	Pulp, paper, paperboard
A	2695	Articles of concrete & cement	→	2694	Cement, lime & plaster
A	2811	Structural metal	→	2899	Other fabricated metal
B	2811	Structural metal	→	2710	Basic iron

The mismatching cases can roughly be classified into the following two types.

1) Matching at the VSIC two-digit level but mismatching at the four-digit level (Case A)

This is the case of an enterprise that already made a product classified in other industry sector, and production of the product has recently grown and become the enterprise's major product, resulting in the mismatch. Other case is similar to the above, but the product classified in other industry did not grow much but was very similar to the original main product, resulting in mix-up and mismatch.

2) Mismatching at the VSIC two-digit level (Case B)

This is the case of a product that uses more or less the same material and quality but which final product is classified in a different way, causing the enterprise to be classified in an incorrect industry sector.

As shown above, there were cases where the present classification has deviated from the original classification for various reasons. In Vietnam where the industrial landscape changes rapidly and dynamically, many enterprises, especially SMEs, change major products

according to the changes in economic conditions, resulting in the mismatch between their industry classification and present product lines. In consideration of these factors, the GSO and the PSOs take a lead in checking and revising classifications of surveyed enterprises on a periodical basis to conduct the monthly survey accordingly.

(8) Distribution of plural forms of questionnaires

Commodities made by some enterprises other than their major products recorded the value of production next to the major products. This was frequently seen among enterprises that produced final products in similar categories, such as food and beverage, textile and apparel, paper products and printing, and transportation equipment and parts, as shown in Table 3-9.

As these cases can lead to a change in major product due to the changes in economic conditions and other factors, use of two or more forms of questionnaires needs to be considered to maintain and improve data reliability.

Table 3-9 Considered Industries for Plural Questionnaire Distribution

Classification of Main Product			Classification for Plural Questionnaires	
1533	Animal feeds	→	1544	Noodle
1542	Sugar	→	2412	Fertilizer
1542	Sugar	→	2029	Plank
1553	Malt liquors	→	1554	Bottled water
1711	Spinning & textile fabrics	→	1810	Wearing apparel
2102	Corrugated paper	→	2221	Printing
2221	Printing	→	2520	Plastics
3410	Motor vehicles	→	3430	Motor vehicle parts & accessories

(9) No-entry item

For a certain industry, there were some survey items in the respective questionnaire that do not require entry (such as inventory and internal consumption). Such items were marked by diagonal lines to indicate that no entry is necessary. However, analysis of collected questionnaires indicated that enterprises in some industries made entry in the no-entry column or otherwise. This information should be used as the basis of reviewing and modifying questionnaires in the preparation stage for the official survey.

1) Industries for which “internal consumption” should be added to no-entry items because no entry is made in the collected questionnaires

- 2422: Manufacture of paints, varnishes and similar coatings, printing ink and mastics

2) Industries for which "internal consumption" is marked as a no-entry item in the original questionnaire design but some establishments have entered the quantity of internal consumption, necessitating reconsideration of the no-entry treatment
   - 1512: Processing and preserving of fish and fish products
   - 3410: Manufacture of motor vehicles

3.2.1.3 Analysis of Computer Input Results

Data reported in questionnaires collected by each PSO were entered into the PSO's computer. This section mainly describes and evaluates the results relating to data input, software, and data error

(1) Data Input
- As products included in the "Other Products" column were often accepted for data input without being questioned as to whether they belonged to the commodity list for the survey, the products in this category accounted for sizable portions of the total value for the industry in question.
- Many input errors were related to indication of digit places.

In fact, input errors were often attributable to the country's traditional way relating to notations to indicate the decimal point and separate the thousands. For instance, "1,234.00" in the widely accepted system of numeration is usually indicated by comma as "1.234,00" in Vietnam and it was often inputted as "1.234" instead of "1234 (numerical representation on the computer)." This type of input error should be carefully checked in the input process, such as comparison with previous month's data.

(2) Software for Data Input

The software program used for data input generally worked well for the trial surveys, whereas a number of comments were made by PSO staff engaged in data input, with regard to the improvement of user friendliness and ease of use. In particular, after Trial Survey 2 that increased surveyed areas to 9, a variety of opinions were heard from the PSOs that adopted varying input systems.
- Input screen design is similar to the one used for the ongoing survey and thus is easy to use.
- It is desirable to have the capability to sort surveyed establishments according to district and VSIC classification.
- As it was difficult to merge multiple data files into a single file, the task was commissioned to the GSO by sending the files.
- When an error occurred, the program was reset to the initial input screen.
- For an industry sector, the program refused data input in the "Other Products" column.
- As some PSOs use LAN to interconnect PCs, the program should be upgraded to support data sharing, which will improve usability further.

(3) Data Error

By using the automatic error check function of the data input program, the following two problems were identified.

- Error check conducted for the trial surveys revealed two cases of data errors, "quantity of shipments was indicated as zero while the value of shipments was indicated" and vice versa.
- The shipment prices varied between provinces in some cases.

For the trial surveys, the program was set to indicate an error alert when the shipment price exceeded three times the average price in each province or fell below one third. However, comparison of shipment prices in provinces revealed a significant difference for some commodities. This seems to come from entry or input errors relating to monetary value or unit, and careful examination of questionnaires is required.

3.2.1.4 Analysis of Other Results

For Trial Survey 1, surveys of enterprises were conducted to find the time required for entry, the level of difficulty, and interest in survey results. The results are presented below.

(1) Time Required for Entry

As for data collected in October, the average time required for filling out the questionnaire was 9.9 hours for all the establishments. By form of ownership, the average time was 12.6 hours for central state enterprises, 10.3 hours for local state enterprises, 7.9 hours for foreign enterprises, and 10.4 hours for non-state enterprises.

As for the November data, the overall average time for entry was shortened to 9.0 hours. By form of ownership, the average time was 11.7 hours for central state enterprises, 7.2 hours for local state enterprises, 5.7 hours for foreign enterprises, and 11.2 hours for non-state enterprises.

In the December survey, the overall average time was further reduced to 9.2 hours, 10.1 hours for central state enterprises, 7.1 hours for local state enterprises, 4.7 hours for foreign enterprises, and 10.5 hours for non-state enterprises.

Thus, it was confirmed that the time required for entry shortened steadily over the survey period as respondents get accustomed to the task. Also, state enterprises took considerable time for entry because had problems within their organization such as procedural matter.

(2) Level of difficulty for entry

Most responding enterprises considered the entry work to be "easy" throughout the survey period, i.e., 388 out of 490 enterprises responded in October (79.2%), 395 out of 487 in November (81.1%), and 400 out of 488 in December (82.0%).

Thus, the entry work was recognized as "easy" by an increasing number of enterprises over the survey period.

(3) Interest in Survey Results

Throughout the survey period, most enterprises showed interest in survey results, namely 391 out of 490 enterprises that responded in the October survey (79.8%), followed by a slight decrease in November - 365 out of 487 (75.0%) - and an increase in December, 385 out of 488 (78.9%).

Thus it was confirmed that there was strong interest in survey results and many enterprises expected to use statistical data in the future.

3.2.2 Publication

3.2.2.1 Publication Method

Trial Survey 2 was designed to build the infrastructure for publication of the official survey and to exercise publication in the index development process. In the official survey stage, it is planned to make publication in the following manner.

1) Current production statistics are published as preliminary and final reports. The former is published at the end of the ensuing month of survey month and the latter in a specified month each year (not decided yet).
2) For both preliminary and final reports, national level current production statistics and indices are published on the GSO's Web site and in printed reports.
3) Official publication of current production statistics is stated in the month following the month in which the premier's decree is issued (scheduled to be around February 2007).
4) The GSO's Industrial Statistics Department makes monthly releases to the mass media and sends reports to specific organizations (people's committees and ministries engaged in economic policy making).
5) Both preliminary and final reports are published in Vietnamese and English.

In Trial Survey 2, unofficial publication was made to establish the GSO's publication techniques and to publish survey results on the Web site and in printed matters on an experimental basis by taking into account the actual progress.

3.2.2.2 Content of Publication

Based on data obtained from survey results, the IIP is developed and published. The content of publication in the official survey is planned as follows.

1) Preliminary and final reports cover approximately 50 key products that are important to understand the country's industry trend, which are selected from commodities made by surveyed industries.
2) Publication of the IIP contains production, shipment and inventory indices that are calculated from data on all commodities made by surveyed industries, together with production and project production indices using the weight of the value of production, which are published as reference.
3) The published content includes description and analysis of the industry and other trends, in addition to data and indices.
4) Statistical data, which publication violates confidentiality, are not published.

The indices were developed for commodities (industries) covered by Trial Survey 2 with October 2005 as the base period.

3.2.2.3 Publication Procedures

Publication of the official statistics will follow the following steps. In Trial Survey 2, publication was made as an exercise for the official survey.

1) The GSO's Industrial and Constructional Statistics Department processes national-scale statistical data and develops the IIP.
2) Both preliminary and final reports are published after the GSO's approval.
3) Publication on the GSO's Web site is made by the department in charge of Web site maintenance.

The above procedures are stated as basis for publication and maintenance. In Trial Survey 2, the above publication procedure was implemented for testing purposes.

3.2.2.4 Web Publication

A sample image of publication of survey results on the GSO's Web site under Trial Survey 2 is shown in Figure 3-12. The published content is organized as follows (to be upgraded monthly).

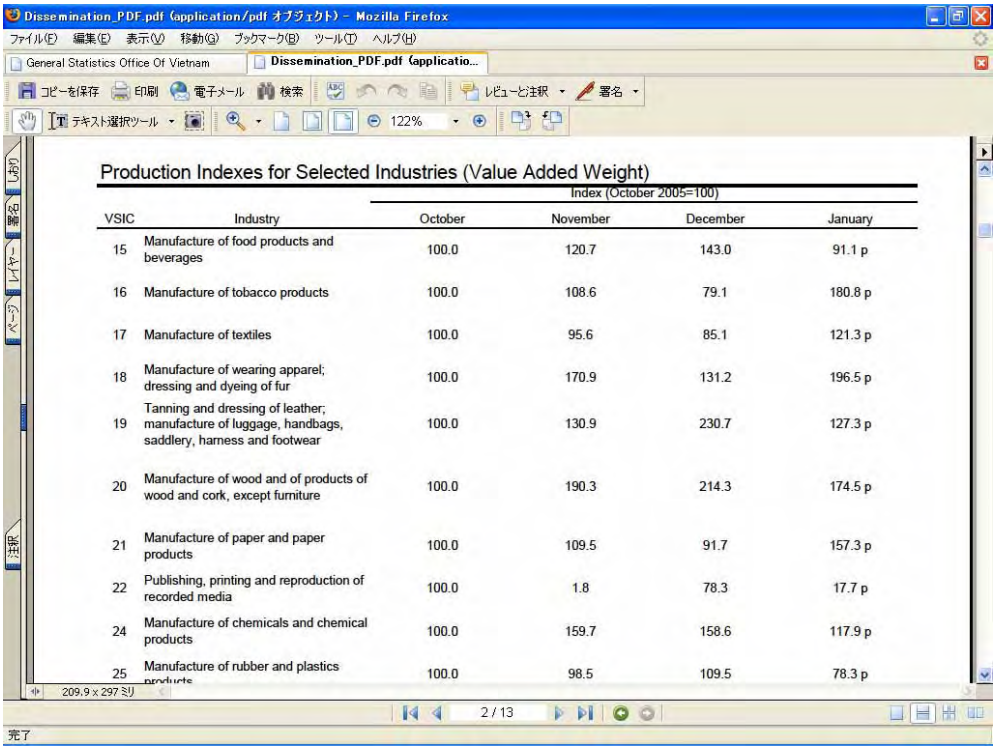
1) General outline of the survey
2) Purpose
3) Content

4)Results

The survey results are published in PDF (or Word/Excel) format to allow downloading by users. The indices published are planned as production index by industry (Figure 3-13), shipment index, ending inventory index, list of commodities that contributes to a significant increase or decrease of production indices.

Figure 3-12 Dissemination on GSO's Web Site (Main Page)

Figure 3-13 Dissemination of IIP by Industry on PDF Format



Production Indexes for Selected Industries (Value Added Weight)

VSIC	Industry	Index (October 2005=100) October	November	December	January
15	Manufacture of food products and beverages	100.0	120.7	143.0	91.1 p
16	Manufacture of tobacco products	100.0	108.6	79.1	180.8 p
17	Manufacture of textiles	100.0	95.6	85.1	121.3 p
18	Manufacture of wearing apparel; dressing and dyeing of fur	100.0	170.9	131.2	196.5 p
19	Tanning and dressing of leather; manufacture of luggage, handbags, saddlery, harness and footwear	100.0	130.9	230.7	127.3 p
20	Manufacture of wood and of products of wood and cork, except furniture	100.0	190.3	214.3	174.5 p
21	Manufacture of paper and paper products	100.0	109.5	91.7	157.3 p
22	Publishing, printing and reproduction of recorded media	100.0	1.8	78.3	17.7 p
24	Manufacture of chemicals and chemical products	100.0	159.7	158.6	117.9 p
25	Manufacture of rubber and plastics products	100.0	98.5	109.5	78.3 p

3.3 Lessons Learned from the Trial Survey Results

Based on the results of the trial surveys, major issues to be addressed in designing and implementing the official survey were identified and tabulated in Table 3-10 for each of the following items, together with lessons learned and recommendations for improvement toward formulation of the preliminary development plan.

Survey method
- Survey system
- Collection
- Examination
- Data input
- Publication

Questionnaire design
- Basic information
- Survey items
- Commodities
- Unit
- Numerical system
- Other products
- Design

Enterprise (establishment) list
- Industry classification
- Distribution of plural questionnaires

Other
- Public education and promotion

Table 3-10 Lessons Learned from Trial Survey Results and Recommendations for Improvement

< Survey method >

Item	Issue	Lesson learned	Recommendation
Survey system	In the trial surveys, the deadline for collection of questionnaires was set on the 12th day of each month. The final response rate (when data were sent from PSO to GSO) was very high in every PSO, but the response rate up to the deadline fell below 50% at some PSOs.	In consideration of the need for monthly publication and the securing of data reliability, it is imperative to achieve the high response rate for the deadline. As the trial surveys covered enterprises (establishments) in highly industrialized areas, including Ha Noi, Ho Chi Minh, and Binh Duong Province, heavy workloads on enumerators (the number of surveyed enterprises per enumerator) was created. The workload further increased due to concurrent implementation of the ongoing statistical survey. It is expected to decrease when the MSMIP replaces the ongoing survey, but effective measures should be taken to equalize the workload between enumerators and to establish a system to ensure early collection of questionnaires.	At present, PSO staff is responsible for collection from state and foreign enterprises. To equalize the workload, however, reallocation to DSO staff (in charge of collection from private enterprises) should be considered when necessary. Also, enumerators should not rely on the voluntary reporting system but should communicate with respondents to agree on the collection date in advance.
Collection	As the questionnaire requires signature of the establishment's principal (director), it sometimes takes time to obtain his signature even if the questionnaire is filled out relatively early, causing a delay in submission.	Submission should be speeded up by accepting the signature of the respondent (usually accountant) or his supervisor (chief accountant).	Verification by the supervisor is important for data reliability. It is therefore recommended to require the approval by the supervisor of the respondent, while omitting the approval by the principal. This should then be notified to the respondent.

Item	Issue	Lesson learned	Recommendation
Examination	Enumerators often failed to make close examination at the time of collection accompanied by confirmation and correction on possible entry errors, such as omission, inconsistency between data entries in related items, errors relating to unit and numerical system, and inclusion of main products in "Other Products" due to misunderstanding of the commodity list and classification. This happened despite the pre-survey instruction and workshop.	Many enumerators were busy in handling two surveys that were implemented concurrently (the trial survey and the ongoing industrial sample survey) and did not have enough time to perform close examination. Also contributed was the use of an examination manual that was different from the one used for the ongoing survey. Thus, the survey system and organization should be reviewed and revised to improve the situation.	The PSO's director should instruct enumerators to examine questionnaires according to the manual and check questionnaires collected and examined by enumerators on a periodical basis and provide advice and guidance as required.
Data input	Analysis of input data reveals some input errors, which were mostly caused by misunderstanding of notation to separate the thousands (interpreted as three digits higher or lower).	Figures entered in questionnaires often used the local system of numeration to separate the thousands (use of comma for decimal point and period for unit of thousands), which was misread during input. Effective measures are required to prevent this type of input error.	As the different indication marks are used by different enterprises, it is difficult to promote adoption of the same method to all enterprises. Instead, enumerators should check decimal points and the notation to separate the thousands carefully with respondents and correct entries, if necessary, to avoid misunderstanding. The PSO should take a lead in giving necessary instruction and guidance to enumerators.
	In many questionnaires, numbers were entered for the quantity of production but other items were omitted or marked by "-." In this case, data input software interpreted the entries as zero (nil)" which is difficult to distinguish from zero value.	It should be clarified as to whether each zero entry represents an omission or no value, in order to improve data accuracy.	Enumerators request entry to every applicable item including zero and check compliance at the time of examination, and no value should be entered as "0" in the database.
Publication	Some commodities were produced by one establishment, such as VSIC3000 (office equipment).	Commodities that are made by one or several enterprises should be checked.	Commodities to be added in the MSMIP should be checked for presence of commodities with a limited number of manufacturers. For the future publication, the method for publishing data on such commodities should be considered.

< Questionnaire Design >

Item	Issue	Lesson learned	Recommendation
Basic information	In many questionnaires, basic information such as tax code, address, telephone number, and name of contact person was omitted.	As these information is essential for maintenance of the enterprise master list and guidance should be made to prevent omission or entry error (including entry of name or address other than those registered in the database).	Efforts should be made to ensure instruction/guidance by enumerators to surveyed enterprises and careful examination on questionnaires upon collection.
Survey items	Many respondents seemed to be confused because previous surveys did not ask entry of ending inventory, for which "0" or "-" was entered.	It was assumed that many enterprises took inventory of products each month.	Enumerators should explain importance of inventory management to respondents at the time of the presentation meeting for surveyed enterprises or distribution of questionnaires.
	For certain industries, some survey items were marked by diagonal lines to indicate that no entry was necessary, such as inventory and internal consumption, but entry was made by some enterprises. Also, there were items for which all enterprises in the respective industry did not enter data.	Crossing out some items was decided on the basis of production activities of specific industries, it was not applied to some enterprises or industries because of diversity in production activity that went beyond expectation. Clearly, the method and criteria for selecting the crossed-out item should be reviewed and revised.	Based on the results of the trial surveys, the review should be made and surveys of individual establishments and trade associations should be conducted before making revision. Also, new industries added to the list should be selected prior to the start of the survey after hearing opinions from establishments and trade associations, subject to reconfirmation being conducted around six months after the start of the survey. Also, any change should be reflected in the questionnaire for the new survey that starts in January each year.

Item	Issue	Lesson learned	Recommendation
Commodities	Many commodities were included in the "Other Products" column.	Inclusion in "Other Products" seems to occur due to the following reasons. - In previous surveys, enterprises were asked to write down their products and were not accustomed to select and mark applicable commodities in the printed list. - Description of some commodities was not specific or comprehensive. - A product made by the enterprise was identical to the one in the printed list but their names were different, resulting in misunderstanding.	Enumerators should be properly trained to explain the commodity list in the questionnaire accurately to surveyed enterprises. This helps enumerators to find and prevent entry error in the examination stage. For this purpose, instructors of the GSO and the PSOs should provide periodical guidance. In the future, the commodity list should be revised for convenience of respondents concurrently with the time for selection and reshuffling of commodities by analyzing responses in the past one year and excluding no-response items or dividing a commodity to which an excessively large number of responses have been made.
Unit	In some questionnaires, entry was made using a unit other than the one specified and printed in the questionnaire.	The following errors were found. - Confusion between "ton" and "kg" or between "1,000 pieces" and "pieces" (misunderstanding of numeration rules). - Small enterprises had to use decimal figures under the unit of "ton" or "million VND." This was true for commodities that were produced in small quantities. - Some respondents used their internal unit by rewriting the unit printed in the questionnaire. Thus, units that can be accepted by all respondents should be agreed on.	Reconsideration should be made according to characteristics of production activities by industries by analyzing collected questionnaires and data and project minimum units for surveyed enterprises. Also, close examination by enumerators upon collection will be conducted.
	The value of shipments for each commodity should be indicated in VND. But some enterprises used US$, which was converted by the establishment or the PSO enumerators by using the exchange rate on its own choice.	The rule for conversion (to be made by the PSO, etc.) was not notified to all enterprises (establishments) and enumerators.	The questionnaire should be redesigned to allow entry by currency of respondent's choice, VND or US$, according to the enterprise's accounting rule, while the PSO is required to make conversion at the uniform exchange rate.

Item	Issue	Lesson learned	Recommendation
Numeration system	There were no unified rule for numeration, i.e., use of comma and period, and the rule for numeration to separate the thousands or indicate the decimal point, resulting in entry or input error.	For figures including a fraction, the rule was set to make rounding to the second decimal place and was not widely complied with.	Unit of indication may be changed to allow use of whole numbers by analyzing questionnaires and data, while paying careful attention to the quantity of production for each commodity. Also, enumerators will be instructed to give proper guidance for surveyed enterprises.
Other Products	5% - 25% of products sales were classified in "Other Products," depending upon provinces. A major reason is that enumerators or respondents tended to quickly classified products that were not found in the list (e.g., the same product but the name differs) in "Other Products" without checking the printed commodity list carefully. Also, there were a relatively large number of cases that an incorrect industry classification led to the absence of the enterprise's product in the printed list.	Enumerators and respondents were not accustomed to the commodity-based statistical survey. Also, updating of industry classification should be made periodically.	Based on the results of questionnaire analysis, guidance for product description and entry procedures should be repeatedly made at each PSO. A system to ensure the updating of the enterprise list should be established in response to any change in industry classification.
Design	The three-page questionnaire often produced an illegible copy on the third page when the brushstroke was not strong enough. Also, it took considerable time for proper management at the time of distribution and collection.	As the three-page questionnaire was not used in previous surveys, some enumerators and respondents could not handle it properly.	After the trial surveys, the previous single-page questionnaire will be used and its collection will be managed at the PSO.

< Enterprise (establishment) list >

Item	Issue	Lesson learned	Recommendation
Industry classification	There were many mismatches between the form of questionnaire and industry classification. Some enterprises were classified in wrong industries in the GSO's enterprise list.	In the ongoing survey, the same questionnaire is used for all industries, and incorrect classification does not affect entry or collection. Under the MSMIP, however, different forms will be distributed according to industry classification, so that industry classification should be accurately made and reflected in each questionnaire.	When the list of surveyed enterprises for the MSMIP is made from the enterprise (establishment) list in the GSO's database, industry classification for each enterprise should be confirmed through the PSO. At the same time, production data on each enterprise (particularly those classified in "Other Products") will be check periodically to update industry classification. Also, possibility to distribute plural forms to enterprises having major products classified in different industries should be considered for future implementation, in order to ensure accurate survey of each industry.
Plural forms of questionnaire	Commodities made by some enterprises other than their major products recorded the value of production next to the major products. These cases led to a change in major product to replace commodities in the original industry classification recorded in the DSO's database.	If one form is used for each establishment, data on products classified in different industries with sizable production cannot be obtained. Also, a system to effectuate a prompt change to a proper form should be established in the case when a product of other industry becomes the major product.	If the MSMIP uses one form for each questionnaire, a system to confirm the major commodity periodically and accurately should be established. Also, possibility to distribute plural forms should be examined, and if distributed, a system to set and execute selection criteria (for instance, an industry to which a commodity made by the enterprise with a certain percentage of its total value of production belongs) should be established. In the commodity-based survey, surveyed commodities should be identified as far as possible.

< Other >

Item	Issue	Lesson learned	Recommendation
Public education and promotion	Low level of recognition on current production statistics among enterprises	As the results of the ongoing Monthly Industrial Sample Survey are not widely published, many enterprises do not know about the publication.	The questionnaire survey conducted in Trial Survey 1 shows that approximately 79% of surveyed enterprises showed interest in survey results. The level of recognition should be improved by advertising the ongoing Monthly Industrial Sample Survey and its results on the newspapers and other media.

3.4 Implementation Outline and Ongoing Evaluation of the Pre-survey

3.4.1 Purpose and Outline of the Pre-survey

After completion of Trial Survey 2, the GSO implements the expanded scale trial survey continuously. The survey period will be one year starting in February 2006 (the surveyed months are from January to December, 2006). Hereafter, this survey is termed as Pre-Survey for Current Production Statistics of Vietnam in order to distinguish from the Trial Surveys under the development study.

(1) Purposes of Pre-Survey

1) Expand the coverage of the current production statistics survey by adding key industries defined in Vietnam to mining, manufacturing, and electricity/gas/water services.
2) Expand the coverage of the current production statistics survey to households.
3) Establish the bases of the statistical tabulation and dissemination methods.

(2) Outline of Pre-Survey

A general outline of Pre-Survey are described as follows.

- Survey period: From February 2006 to January 2007
- Surveyed area: 25 cities/provinces (including the nine areas covered by Trial Survey 2)
- Number of establishments to be surveyed: 7,845 (2,434 enterprises, 5,411 households)
- Surveyed sectors: 60 (4 mining sectors, 53 manufacturing sectors (including 48 sectors covered by Trial Survey 2), and 3 electricity/gas/water sectors)
- Number of commodities: 590 (including 524 commodities from the Trial Survey 2)
- Survey items: 8 items (including 6 question items from the Trial Survey 2 as well as "Total Net Turnover of Enterprise" and "Industrial Net Turnover"
- Questionnaire: Basically employ the questionnaire used in Trial Survey 2 but one-page printed front and back sides
- Organization and method: Employ enumerators of PSO and DSO, questionnaire collection by utilizing the Reporting System (for state and foreign enterprises), questionnaire examination and data input by PSO, and dissemination by GSO and PSO
- Data entry method: Data input by PSO staff in charge using the new data processing program based on Access and Visual Basic (Developed by IT Center)
- Target selection method: Follow the selection criteria and method of the Trial Surveys
- Authority for Pre-Survey: Directive of GSO Director General dated November 15, 2005 (NO.1621/QD-TCTK)
- Survey implementation body: GSO under technical support of the Japanese government

3.4.2 Ongoing Evaluation of Pre-Survey

As Pre-Survey is modified in terms of survey target and method in comparison to Trial Survey 2, including some additions, interview surveys and the analysis of collected questionnaires were conducted, three months after the start of Pre-Survey, in the target areas, mainly the nine areas that were the subject of the survey as continued from Trial Survey 2. Based on the results of the analysis, major changes in survey results as compared to those of Trial Survey 2 and problems were identified in order to reflect them in the Preliminary Plan for Current Survey of Industrial Production.

3.4.2.1 Major Differences Between Pre-Survey and Trial Survey 2

Comparison of survey items and results of the two surveys reveals differences in the following aspects.

(1) Surveyed areas: Increased from 9 to 25 areas (the nine areas covered by Trial Survey 2 continue to be covered by Pre-Survey)

(2) Surveyed sectors: Increased from 48 to 60 sectors (the number in the manufacturing sector was augmented to 53, with the addition of seven sectors including mining, electricity, gas and water

The sectors added for Pre-Survey are as follows.

C Mining and quarrying
1010 Mining and agglomeration of hard coal
1110 Extraction of crude petroleum and natural gas
1320 Mining of non-ferrous metal ores, except uranium and thorium ores
1410 Quarrying of stone, sand and clay

D Manufacturing
1511 Production, processing and preserving of meat and meat products
1513 Processing and preserving of fruit and vegetables
1551 Distilling, rectifying and blending of spirits; ethyl alcohol production from fermented materials
2010 Sawmilling and planning of wood
3311 Manufacture of medical and surgical equipment and orthopaedic appliances

E Electricity, gas and water supply
4010 Production, transmission and distribution of electricity
4020 Manufacture of gas; distribution of gaseous fuels through mains
4100 Collection, purification and distribution of water

(3) Surveyed establishments：Household industries were added.
(4) Data processing software : Migration from FoxPro（developed by GSO personnel）to Access + Visual Basic（developed by IT Center）

3.4.2.2 Problems Relating to Pre-Survey

From the results of the interview surveys and the analysis of collected questionnaires, the following problems were identified.

(1) Significant difference in the level of understanding on Pre-Survey and its content among enumerators

Between enumerators who were engaged in field work since the trial surveys and those who participated in Pre-Survey for the first time, there were significant differences in the level of understanding on the survey as well as the level of work quality (efficiency and reliability in examination of questionnaires, etc.). And these differences were clearly reflected in the results of Pre-Survey. In fact, the low level of understanding is seen among the PSOs that participated for the first time, whose enumerators receive preparatory seminars only. The results thus indicate that adequate education and training is required for all PSO and DSO enumerators in each survey area.

(2) Delay in questionnaire collection due to increased enumerator workloads

As Pre-Survey was conducted concurrently with the ongoing monthly sample survey, it created extra workloads for enumerators. The situation was further aggravated by implementation of the Census of Enterprises survey in March. In particular, enumerators who participated in the statistical survey for the first time contributed to the delay in collection and examination due to the lack of experience, not to mention time constraint caused by excessive workloads.

(3) Lack of cooperation by some enterprises

In generally, many enterprises, regardless of their size, viewed Pre-Survey as another government survey and some enterprises were reluctant to respond to the survey that had still to be adopted as a formal statistical survey. Also, the lack of cooperation reflects the lack of understanding on the benefits of the statistical surveys to be brought to industries and enterprises.

(4) Problems attributable to peculiar characteristics of households

As the same questionnaire is used for enterprises and households, the following problems were pointed out due to the inability to reflect characteristics peculiar to the latter.

(a) Units of measurement indicated in the questionnaire are generally too large on account of very small volume of production.
(b) Lack of consistency of data due to seasonality in production items

(c) Frequency changes in production items that are difficult to be covered in the present form of questionnaire
(d) Difficulty in ensuring data accuracy as most households do not record business data, including the volume of inventory, the volume of production, and the value of shipments, which can only be obtained from owners on the basis of their inaccurate memory.

The low level of reliability in data obtained from households adversely affects reliability and promptness of official statistical survey data.

(5) Problems relating to data processing software

Various troubles occurred in the initial stage of use of the data processing program. They were reported from the PSO to the GSO and the program was modified by IT Center under the guidance of the GSO. As a result, major problems relating to the program have been solved. However, the following problems that are not attributable to the program are identified.

(a) The lack of understanding on the program operation manual by data input personnel, who complains the program for a trouble caused by his incorrect operation
(b) The lack of experience in program operation due to recent implementation
(c) The inability of older PCs owned by the PSOs to run the new software properly

(6) Delay in data tabulation due to a general delay in the collection and examination process

The collection ratio on the 12th day of each month (deadline set for the survey) hovered low at an average of around 50%. It was particularly low in the areas which were participated from Pre-Survey. Furthermore, as preliminary examination of collected questionnaires was not always conducted properly to necessitate additional checking with the PSO or surveyed enterprises. As a result, the results of Pre-Survey have not been compiled into publishable data. Naturally, index calculation has not been started yet.

Whereas some problems are new and due to the fact that Pre-Survey included households for the first time and thus was unable to fully reflect their peculiar characteristics, other problems have already been identified and pointed out by the analyses of survey results up to Trial Survey 2. While Pre-Survey is expected to continue until the end of 2006, the results of the analyses to this day will be used as the basis of formulating the Preliminary Plan for Current Survey of Industrial Production. (See Chapter 5.)

3.5 Finalization of Commodity List and Questionnaire

3.5.1 Analysis and Finalization of the Commodity List

Based on the sectors and commodities covered by Trial Survey 2 and the results of Pre-Survey to this date, the commodity list will be finalized. The list is expected to expand further when the current survey of industrial production is officially embarked. Tasks required for expansion of the survey coverage will be led by the GSOs, using knowledge and skills transferred from the JICA team during the development study. The present study therefore dealt with the reviewing and modification of the commodity list used by Trial Survey 2, which covered 48 sectors in the manufacturing industry.

(1) Commodity list analysis and modification

Three-month data obtained by Trial Survey 2 were analyzed and modified for each commodity according to the following steps (see Figure 3-14).

① Calculation and tabulation of share of each commodity including other products for each sector

② Classification of each commodity according to the 3% criteria, i.e., a commodity that accounts for 3% or more of the industrial sector is classified into "a major commodity" while commodities with less than 3% share are classified into those that should be considered for deletion from the list. On the other hand, a commodity that is classified into "other products" and shows a 3% or higher share is classified into a new item in the commodity list.

③ Confirmation of adequacy of unit (representativeness and flexibility)

④ Final confirmation with the GSO on the commodity list compiled through the above steps

(2) Results of analysis of the commodity list

The results of commodity-based analysis of data obtained by Trial Survey 2 are shown below (Table 3-11). In the nine areas covered by the survey, there were 120 commodities for which no production activity was reported. Also, it was revealed that 229 commodities had less than 3% share in respective sectors. It is important to note, however, that a significant production activity may be found for these commodities when the official survey expands to other areas. For this reason, a final decision on whether a commodity that was found to have an insignificant share in Trial Survey 2 should be included in the official survey including newly added commodities will be made in the consultation with the GSO that has sufficient experience and data obtained from the previous surveys.

The final list proposed under the present study, consisting of 48 sectors, is presented in the Appendix hereto. Of 524 commodities covered by Trial Survey 2, 20 were deleted and 7 were added to result in a total of 511 commodities. Note that the commodity list presented here is the final results and proposal made by the study team through the trial surveys. It was

prepared under the assumption that it will be modified and used by the GSO toward the implementation of the formal survey.

- Number of sectors to be surveyed：48
- Number of commodities to be surveyed：511 (including 7 added)

Figure 3-14 Work Flow for Analysis and Modification of the Commodity List

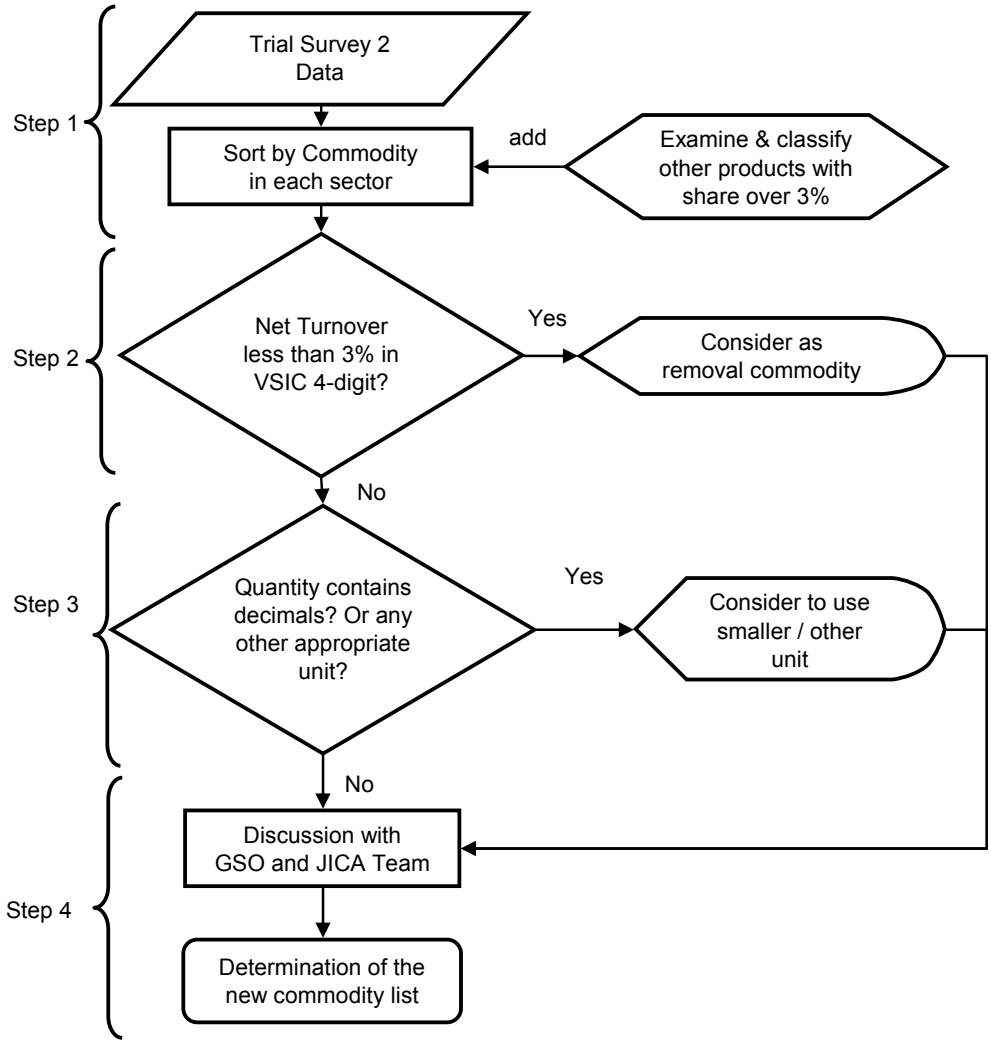


Table3-11 The Results of Commodity-Based Analysis of Data Obtained by Trial Survey 2

		Number of commodities	Share (%)
Listed Commodities (524 in total)			
	Over 3% share in each sector	175	83.3%
	Less than 3% share in each sector	229	7.6%
	No production activity reported	120	0%
Other Products		2,632	9.0%
Total			100.0%

NOTE 1: The number of other products denotes unclassified cumulative numbers for three months recorded in the database

NOTE 2: Shipment value of other products are excluding some outliers

3.5.2 Finalization of Questionnaire

Based on the final commodity list proposed here and in consideration of the results of interview surveys of local enumerators as well as comments obtained in the meeting with the GSO, the questionnaire was modified and finalized. Survey items modified in the process are listed below.

- Deletion and addition of commodities
- Enlargement of font size
- Expansion of entry space
- Reviewing and deletion of any of the six survey items in each industry, due to the lack of eligibility
- Deletion of the “other products” column in a specific sector
- Addition of the total net turnover of a specific enterprise in a survey month as well as the industrial net turnover in a specific sector

The questionnaire proposed here to cover the 48 sectors is shown in the Appendix hereto. Note that the questionnaire is proposed to be made in A4 size, but it is recommended to use a larger B4 form for a sector that is surveyed 15 or more commodities, in consideration of the ease to see information in the questionnaire as well as the ease of entry.

Chapter 4 Implementation and Evaluation of Seminars and Workshops

Chapter 4 Implementation and Evaluation of Seminars and Workshops

Over 40 seminars and workshops of varying sizes were held during the study. There are two major purposes of such seminars and workshops as described follows.

① Promote an understanding of industrial statistics and indices of industrial production; future independence of institutional design and implementation; and capacity development for sustainable implementation.
② Promote an understanding of the importance and necessity on current production statistics and industrial production indices for individuals, organizations, and the general public.

The results the major seminars and workshops held for the Trial Surveys and capacity development during the Study are summarized as follows.

4.1 Summary of Seminars and Workshops

4.1.1 Orientation Programs for Trial Survey 1

Prior to Trial Surveys, seminars and workshops were held for enumerators and respondents of surveyed enterprises (establishments). They were held in three places for the first year and in nine places for the second year of the study. The seminars were designed for the respondents of surveyed enterprises who prepared and answered for the questionnaires, and the workshops were designed for the staffs of PSOs and DSOs who conducted the survey as enumerators. The outline and result of these orientation programs for Trial Survey 1 were as follows.

4.1.1.1 Enumerator Workshop

Prior to the implementation of Trial Survey 1, workshops for enumerators were held at each PSO. The purpose of the workshop was to explain the concept and necessity of monthly production statistics survey, as well as the skill upgrading by a guidance of the survey structure and methods of Trial Survey 1 to enumerators. The workshops were held at each PSO of Ha Noi City, Bac Ninh Province, and Ho Chi Minh City. The contents of the workshops were described in the following.

- Outlines of the JICA project and Trial Survey 1
- Selection procedures and contents of the target sectors, commodities, and enterprises
- Description of Field Operation Manual
- Explanation of the data processing method
- Questions and answers

Most participants were staffs of the Department of Industry and Construction of PSO and DSO (Table 4-1) and were very cooperative and dedicated to the success of the workshops.

The most frequent questions raised at the workshops were concerned with descriptions of the commodity classification and the entry method of turnover or ending inventory quantity by commodity. At a later date, PSO held a study meeting for further understanding including the topics discussed in the workshop.

Table 4-1 Enumerator Workshops for Trial Survey 1

Date	Place	Number of Participants
September 17, 2004	Ho Chi Minh PSO	37（GSO 1, PSO 11, DSO 21, Study Team 4）
September 21, 2004	Bac Ninh PSO	39（GSO 1, PSO 26, DSO 8, Study Team 4）
September 23, 2004	Ha Noi PSO	30（GSO 2, PSO 10, DSO 14, Study Team 4）

Entire image of workshop
（Ho Chi Minh PSO）

Guidance on Trial Survey 1
（Bac Ninh PSO）

Enumerators
（Ha Noi PSO）

4.1.1.2 Enterprise Seminar

Directors or respondents of surveyed enterprises were called on the seminars held at three PSOs just like the workshops. Most participants from surveyed enterprises were accountants or chief accountants who were responsible for statistical surveys but some were executive-level employees. In Bac Ninh Province, a case that one accountant held the posts of accountants in several target enterprises caused the number of participants for the seminar was much fewer than the number of target enterprises (7 target enterprises by one accountant). In the seminars, the usefulness of current production statistics survey data was explained to the participants by introducing the case study in abroad as well as description of the survey methods of Trial Survey 1 with sample questionnaires and manuals. Most participants showed a quick reaction to the survey methods since they have responded to the statistical surveys by GSO for years. However, many participants did not have a profound understanding of the characteristics of current production statistics, “survey by commodity”, because the enterprises have not been aware of possibility to utilize government statistics for their business activities. In any case, the seminars accomplished certain results as a first step of introduction of a new statistical survey by clarifying the meaning of current production statistics with the possibility for future utilization.

Questions raised by the enterprises were, for example, whether or not enter “internal consumption” or “internal use”; product display at their showroom (shipment or inventory); net turnover for invoice base or reception base, etc. All these questions were answered by the GSO staff or the JICA Study Team.

Table 4-2 Enterprise Seminar for Trial Survey 1

Target Area	Date	Place	No. of Participants (No. of Enterprises Invited) Rate of Participation	Participation of enumerators (PSO, DSO/GSO)
Ho Chi Minh City	October 25, 2004 (Monday)	Reunification Conference Hall (Former President Office)	180（260） 69%	34 + 2 Deputy director of GSO Industry and Construction Department
Ha Noi City	October 27, 2004 (Wednesday)	Conference Hall, Trade Union Hotel	42（175） 24%	24 + 5 Deputy director of GSO Industry and Construction Department
Bac Ninh Province	October 28, 2004 (Thursday)	Main Conference Hall, Bac Ninh PSO	56（60*） 93%	14 + 5 Deputy director of GSO Industry and Construction Department

* In Bac Ninh, an accountant works for several enterprises.

Participants from enterprises
（Ho Chi Minh PSO）

Guidance on Trial Survey 1
（Bac Ninh PSO）

Entire image of seminar
（Ha Noi PSO）

4.1.2 Orientation Programs for Trial Survey 2

Prior to implementation of Trial Survey 2 in the second year, seminars and workshops were held in nine target areas. The seminars and workshops were conducted during the same period and the JICA Study Team members and GSO staffs vested all the areas where seminars and workshops were held.

4.1.2.1 Enumerator Workshop

Enumerators of PSOs and DSOs participated in the enumerator workshops to receive the guidance on the survey by the JICA Study Team and the GSO in the same way as Trial Survey 1.

There were 9 PSOs, which would participate in Trial Survey 2, including 3 PSOs from Trial Survey 1 and newly added 6 PSOs. Although the purpose and structure of the survey have not been changed from Trial Survey 1, the survey items, target sector, and commodity have changed from Trial Survey 1. Therefore, the workshops were held for the purpose of explaining the new survey to all 9 PSOs. Along with the enumerator workshop, the guidance on the pre-survey that will be implemented right after Trial Survey 2 was presented, covering the outline, the concept of the institutionalized survey, and the importance of index development. The contents of guidance are as follows.

- Purposes of the JICA project and Trial Survey 2
- Selection methodology on survey subjects (sector, commodity, area, establishment) for further understanding on the survey
- Guidance on survey procedure with "Field Operation Manual" and "Questionnaires"
- Outline of the data input system and its usage
- Outline of index of industrial production (IIP)
- Vision and plan on pre-survey and institutionalized survey by GSO
- Questions and answers


Enumerator Workshop in Da Nang

4.1.2.2 Establishment Seminar

All respondents of surveyed establishments were invited to the seminar to reflect the fact that the survey subject was shifted from "enterprise bases" to "establishment bases" in Trial Survey 2, and received guidance from the JICA Study Team and the GSO (Because almost all cases were "1 enterprise = 1 establishment (factory)", participants representing surveyed establishments were same as respondents of the respective enterprises). Table 4-3 shows the implementation dates, seminar locations, and number of participants.

Table 4-3 Establishment Seminar for Trial Survey 2

	Target Area	Date	Target Establishment		Participation of Enumerator (PSO+DSO)
			Total	No. of Participants	
1	Dong Nai	Sep.22	187	112	25 (15+10)
2	Binh Duong	Sep.23	292	270	45 (17+28)
3	Da Nang	Sep.27, 28	176	159	35 (9+26)
4	Hai Phong	Sep.29	200	165	35 (10+25)
5	Vinh Phuc	Sep.30	66	58	26 (7+19)
6	Hanoi	Oct.5, 6	350	284	35 (18+17)
7	Thanh Hoa	Oct.10, 11	120	51	35 (11+24)
8	Bac Ninh*	Oct.25	135	108	40 (15+25)
9	Ho Chi Minh	Oct. 27	401	332	63 (33+30)

The purpose of the establishment seminar was as follows.

- Presentation on the importance of the monthly production statistics survey to Vietnam's economy, and a future introduction plan of the monthly production statistics survey
- Guidance on data entry to questionnaire and questionnaire submission in Trial Survey 2

The contents of the establishment seminars were described in the following.

- Purpose of the JICA project and outline of monthly production statistics
- Outline of Trial Survey 2
- Guidance on data entry to questionnaire and questionnaire submission
- Vision and plan on pre-survey and institutionalized survey by GSO
- Questions and answers

Establishment seminar in Ho Chi Minh City

Reception desk in Binh Duong Province

4.2 Achievement and Evaluation of Capacity Development and Promotion of Awareness

4.2.1 Implementation and Evaluation of Capacity Development

4.2.1.1 Questionnaire Examination Workshop

(1) Implementation Outline

Data accuracy can only be accomplished by careful examination of collected questionnaires before data input. Furthermore, the examination on questionnaires at the time of collection is very important by spending considerable time and effort to check data with survey subjects after data input. Therefore, the workshop on questionnaires examination was held for enumerators. Since actual survey work is mainly done by enumerators at the PSO level, the workshops were catered to PSOs having many surveyed companies. At the same time, guidance on the monthly production statistics survey was given to enumerators. This workshop went into more details in questions and answers compared to the previous workshops. The same workshops were held for staffs of Department of Industry and Construction of the GSO since they were in charge of training of all PSO staffs. The workshops were scheduled on the second month after two trial surveys started (Refer Table 4-4).

Table 4-4 Capacity Development Activities

Target Area	Date	Target Participant	Content
Ho Chi Minh PSO	Dec. 9th, 2004	Staffs of Department of Industry and Construction of Ho Chi Minh PSO	Questionnaire examination method Workshop
GSO	Dec. 13th, 2004	Staffs of Department of Industry and Construction of GSO	Questionnaire examination method Workshop
Ha Noi PSO		Staffs of Department of Industry and Construction of Ha Noi PSO	
Bac Ninh PSO	Dec. 14th, 2004	Staffs of Department of Industry and Construction of Bac Ninh PSO	Questionnaire examination method Workshop
Binh Duong PSO	Dec. 6th, 2005	Staffs of Department of Industry and Construction of Binh Duong PSO	Questionnaire examination method Workshop

(2) Implementation Content

Examination was made by utilizing two questionnaires of consecutive months and comparing data entry in each item of the questionnaires. In the workshops, technology transfer was carried out, especially about the following methodologies.

- Method for checking digit mistake of entered numbers
- Round-off handling
- Method for checking data of previous month and this month

- Number entry method in case of different unit used by establishment (guide to follow the unit described on a questionnaire)

During the workshop, guidance was given by using actual questionnaires. Besides the questionnaire examination, the characteristics and differences between the enterprise-based current monthly sampling survey and the commodity-based trial survey from the point of sector analysis were explained.

(3) Evaluation of Implementation

It is considered that the workshop raised awareness of importance of questionnaire examination and motivated enumerators for the examination work, as evidenced from the fact that a PSO staff member checked collected questionnaires by comparing the questionnaires of previous month the day after the workshop. The ability of understanding was relatively high since the contents of this workshop were similar to existing survey procedures and checking points. On the other hand, it is necessary to hold further study sessions for the pre-survey and the institutionalized survey in order to gain knowledge about data gathering by commodity, adjustment of commodity classification, and analysis by industry sectors.

4.2.1.2 Index Development Workshop

(1) Implementation Outline

At the final stage of Trial Survey 2, creation of IIP and preparation for dissemination were attempted by utilizing the data collected during Trial Survey 2. For this purpose, the workshops on index development were held for staffs of Department of Industry and Construction of GSO, Ha Noi PSO, and Ho Chi Minh PSO during the implementation of Trial Survey 2. The workshops were held continuously as practical training opportunity (Table 4-5).

Table 4-5 Index Development Workshop

Purpose	Date	Target	Place
Index Development Seminar	Oct. 6～7th, 2005	Representatives from departments of GSO, all staffs from Department of Industry and Construction of GSO, etc.	International Convention Center, Ha Noi
Index Development Exercise for Trial Survey 2	Dec. 7th, 2005	Staffs from Department of Industry and Construction of Ho Chi Minh PSO	Main Conference Hall of HCMC PSO
	Dec. 19th, 2005	Staffs from Department of Industry and Construction of GSO	Meeting Room #502 of GSO
Index Development Exercise ②	Jan. 5th, 2006	Staffs from Department of Industry and Construction of GSO	Meeting Room #502 of GSO

(2) Implementation Content

In the index development seminar, the following topics were covered: the outline of index creation in Japan; the differences between "quantity index" and "price index"; the methods of analysis utilizing a degree of contribution. Moreover, the theory of index creation by "Index Calculation Manual", a tangible calculation method using Excel, and the differences between existing index and IIP were explained. The GSO staffs who were in charge for creation of IIP at actual work were targeted for the practical exercise of index development for Trial Survey 2. In particular, the main topics covered were: history of index creation; the tangible index calculation method; practice problems; and answers and explanation.

(3) Evaluation of Implementation

Index creation is one of the most requested topics for technology transfer to the counterpart in this study. The ongoing industrial statistics of Vietnam is more focused on the statistics at regional level than the statistics at national level. For this reason, the creation of statistical data (including index) at regional level was an important issue facing to the study. Therefore, it was to say that the workshop on index development was strongly demanded as technology transfer, and participants were very serious to learn it. In practice, it is necessary to have further practical sessions because the understanding of logic has not been reached to the satisfactory level in comparison to that for index calculation. Upon the Vietnam's request, the index development at regional level (PSO) should be implemented after the pre-survey under the Japan's assistance, if possible.

Index Development Seminar at International Convention Center, Ha Noi

4.2.2 Implementation and Evaluation of Promotion of Awareness

One of the main purposes of the Study is to promote current production statistics and the production index to statistical users as well as the general public. The promotional activities were conducted for the enterprises even though the limited numbers in the trial surveys through the workshops and actual survey during the two trial surveys. In this section, other promotional activities for better understanding are described as follows.

4.2.2.1 Workshop for Promotion of Awareness

(1) Implementation Outline

In the beginning of the study, the workshop was held for officials of the government of Vietnam in the field of industrial statistics. The theme of the workshop was "What are production statistics" and held in June 30th of 2004, soon after the study started, in Ha Noi. In total, 40 participants were from the GSO, the Ministry of Industry (MOI) and the Ministry of Planning and Investment (MPI) which are engaged in industrial statistics, Ha Noi PSO, and Ho Chi Minh PSO.

(2) Implementation Content

The content of the workshop was as follows.

- Benefits of quantity based data
- Outlines of current production statistics in Thailand and the Philippines
- Present condition and problem on monthly production statistics in Vietnam

(3) Evaluation of Implementation

It is important to change in the way of thinking by the GSO and people involved in statistics ahead of statistical techniques. For that reason, it is considered that the explanations achieved certain results by the significance and importance of quantity-based survey as the purpose of this study and the explanation/opinion exchange about the differences on the monthly sampling survey. In addition, the progress report and the explanation of current production statistics had been given to MOI and MPI, the members of the Steering Committee for the study.

Workshop for promotion of understanding at the GSO

4.2.2.2 Seminar for Interim Report

(1) Implementation Outline

In accordance with the submission of the interim report, the seminar was held to the GSO and people involved in statistics regarding the interim report of the study, the manner of statistics utilization, and a future plan in Ha Noi. In total, 136 people were participated from the Director General and staffs of the GSO, the PSO staff members, officials from governmental organization such as the MPI, an adviser of the industry group of the Prime Minister's Office, and private enterprises.

(2) Implementation and Results

The content of the seminar was as follows.

- Interim report of the study
- Sample cases of current production statistics
- Summary statement of Trial Survey 1
- Implementation plan on current production statistics applied in Vietnam

(3) Evaluation of Implementation

Participants made many inquiries to reflect their understanding in the first year of the study and experiences by Trial Survey 1. Especially, participants from 3 PSOs that implemented Trial Survey 1 raised problems from Trial Survey 1 and comments for the following year. The GSO stated their opinions to achieve the success of the study by introducing highly reliable production statistics. Overall, an awareness of persons concerned was changed and advanced steadily.

Seminar for Interim Report

4.2.2.3 Seminar for Pre-survey

The GSO plans to implement the current production statistics survey (pre-survey) with larger samples by taking over the Trial Survey conducted as a JICA study. The seminar for this pre-survey was held by the GSO in order to give explanation and guidance for the survey from December 7th to 8th in 2005 in Da Lat, Lam Dong Province. For this seminar, representatives of 25 PSOs (2 persons each) participated as well as the Deputy Director General of the GSO, staffs of Department of Industry and Construction of the GSO, totaling 90 participants. Experts

representing the Japanese study team also attended at the seminar and gave presentation regarding "outline of index design and development", "application and practice of current production statistics", and "essential consideration on data entry on a questionnaire."

Naturally, the levels of understanding and awareness about current production statistics may have varied between the representatives of newly selected PSOs and the representatives of 9 PSOs having previous experience. Indeed, it is said that the level of awareness and understanding is reinforced through the actual work since the involving the Trial Survey deepened staffs' understanding. The most important achievement of the workshop was the participants' better understanding on current production statistics as well as the awareness building as one organization in preparation for the new survey.

4.2.2.4 Pre-Survey Evaluation Workshops

Based on the analysis of the implementation results of Pre-Survey during the first three months, one-day-and half workshops for PSOs that carried out the survey were conducted in Hai Phong (North) and Nha Trang (South). The time and place for the workshops and participants are summarized as follows.

(1) General outline of the workshops

Workshop for the northern region: 8:00 a.m. – 5:00 p.m., May 30 - 31, 2006
Place: A conference room at Cong Doan Hotel (Do Son)
Major participants: Mr. Hung, Director General of GSO; Ms. Lien, Director of Commerce and Price Statistics Department of GSO; Mr. Tuan, Director of Industry and Construction Statistics Department of GSO; and 2-3 persons representing major 15 PSOs in the northern region, totaling approximately 80 participants

Workshop for the southern region: 8:00 a.m. – 5:00 p.m., June 2 - 3, 2006
Place: A conference room at Huu Hghi Hotel (Nha Trang)
Major participants: Mr. Thac, Deputy Director General of GSO; Mr. Tuan, Director of Industry and Construction Statistics Department of GSO; and representatives of major 17 PSOs in the southern region, and Deputy Director General of Hanoi PSO (for case report), totaling approximately 75 participants

(2) Summary of proceeding and evaluation

On the first day of the workshops, reports were made by the study team and representatives from the Research and Statistics Department of METI, followed by summary reporting made by representatives of the GSO and key PSOs (around three) and explanation by IT Center. The second day primarily consisted of questions and answers, the discussion on improvement measures, and guidance and advice by the study team and the GSO. As most participants had experience in the MSMIP and active discussion was made on the basis of such experience, including the raising

of problems, the workshops turned out to be very effective and productive in promoting a further understanding on the MSMIP.

If the MSMIP is to start officially in 2007, further workshops for enumerators in the areas where have not been conducted the pre-survey are necessary to be held. In this conjunction, efforts should be made to develop a method to transfer knowledge and experience of the PSOs that has prior experience in the pre-survey to other PSOs without such experience.

4.2.2.5 Newsletter

(1) Implementation Outline

Newsletters were published and distributed as a tool to disseminate information on current production statistics, the JICA study and industrial statistics in other counties. The newsletters were edited and published every three or four months, totaling six issues in two years. Each issue consisted of six to eight pages in Vietnamese and English. Two hundred copies were distributed to the related organizations such as related departments of the GSO, the PSOs, people's committees, and industrial organizations.

(2) Implementation and Results

Main contents of the newsletters are as follows.

1) First issue (July 2004)
   - The expectation on the JICA Development Study (by the Director of Department of Industry and Construction of GSO)
   - JICA Study on the Development of Industrial Statistics in Vietnam (by the JICA Study Team)
   - The 10 Fundamental Principles of Official Statistics (by the JICA Study Team)
   - The 1st Workshop for the Study on the Development of Industrial Statistics in Vietnam (by the JICA Study Team)
2) Second issue (October 2004)
   - Launching the GSO Web Site to Enlighten the Vietnam's Statistics (by the Director General of GSO)
   - Implementation outline of Trial Survey 1 (by the JICA Study Team)
   - The Enumerator Workshop for Trial Survey 1 (by the JICA Study Team)
   - Introduction to the Index of Industrial Production (IIP) of Japan (by the JICA Study Team)
3) Third issue (February 2005)
   - New Year's Resolution on the JICA Study (by the Director of Department of Industry and Construction of GSO and the JICA Study Team)
   - Progress Review on Trial Survey 1 (by the Deputy Director of Department of Industry and Construction of GSO)
   - Interview on Trial Survey 1 (Interviewed staffs of Department of Industry and Construction of GSO)

- Introduction of Monthly Industrial Statistics in Other Countries (Japan) (by the JICA Study Team)
- Introduction of New Year Tradition in Japan (by the JICA Study Team)

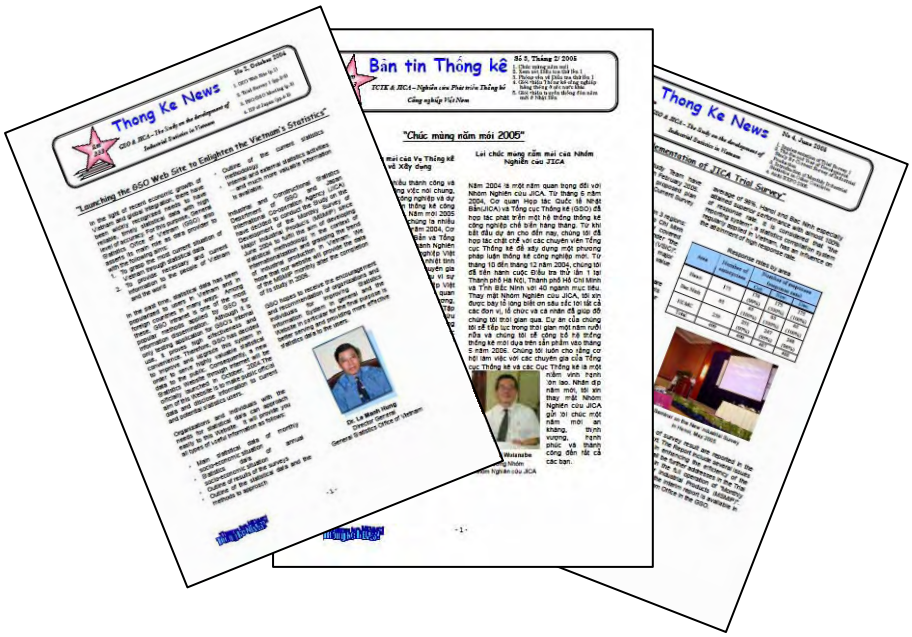
4) Fourth issue (June 2005)

- Implementation Result of Trial Survey 1 (by the JICA Study Team)
- The Second Year of Development Study for Current Survey of Industrial Production (by the JICA Study Team)
- Introduction of Monthly Industrial Statistics in Other Countries (USA) (by the JICA Study Team)
- Aichi Expo 2005 of Vietnam (by the JICA Study Team)

5) Fifth issue (November 2005)

- Implementation Outline of Trial Survey 2 (by the JICA Study Team)
- Establishment Seminar & Enumerator Workshop of Trial Survey 2 (by the JICA Study Team)
- Introduction of Monthly Industrial Statistics in Other Countries (UK) (by the JICA Study Team)
- Thailand's Experiences on Current Survey of Production (by Deputy Director of Department of Industry and Construction of GSO)

6) Sixth issue (July 2006)



Sample of Newsletter

(3) Evaluation of Implementation

It is highly regarded as employing the timely topics of the study for the newsletters in order to convey the progress of the survey to readers. The newsletter also informed the situation of statistics in other countries that gave readers an opportunity to think what Vietnam should do to

adapt itself to the wave of globalization. It, however, did not take an action to get feedback from readers other than counterparts, which remains still room for improvement.

4.2.2.6 Special Issue of Current Production Statistics (booklet)

(1) Implementation Outline

The special magazine of the GSO was published and distributed in order to promote a general understanding of current production statistics. In Vietnam, books and printed matters are much popular and effective for such purpose than the mass media such as TV or radio. The booklets were distributed to the statistical organizations such as the departments of GSO, people's committees, and other government organizations.

(2) Implementation and Results

Main contents of the special magazine are as follows.

- Introduction and development of the current production statistics survey in Vietnam
- Current situation and discussion on the ongoing monthly industrial sampling survey
- Progress of implementation of the current production statistics survey
- Implementation outline of pre-survey in 25 areas
- Current situation of current production statistics in other countries (Japan and Thailand)

(3) Evaluation of Implementation

Promotion by the mass media or a pamphlet would likely end up as having a temporary effect. On the other hand, publication of a special issue in the form of printed book is considered to be very useful since it can be promptly accessed and used to obtain production statistics and relevant information whenever the need arises. Also it will have long-time benefits, including an effective means to record the as footprints of related parties who have been engaged in activities relating to current production statistics.

4.3 Future of Capacity Development and Promotion of Awareness in Vietnam

As described in this chapter, activities to promote public understanding on the current production statistics and the production index were conducted through the two trial surveys and over 40 seminars and workshops.

Hereafter, the problems arisen from the past activities and the future efforts are described.

(1) Problems

The seminars and workshops were conducted mainly for organizations engaged in development of current production statistics such as the statistical survey implementation body (GSOs and PSOs), survey subjects (enterprises), statistical users in the central government organizations (MOI and MPI). For this reason, the main user of existing statistical surveys - people's committees - did not have sufficient opportunity to learn and understand the current production statistics survey that will replace the existing survey.

Also, the JICA Study Team felt from the seminars and workshops for index development and other topics that efforts to promote the changes in mindset of related parties about the shift from the present statistics to the new ones are as important as dissemination of knowledge and technology transfer.

(2) Future Challenges

It is very important to continue activities to promote understanding about current production statistics to the people's committees (all levels as province, district, and commune) that are key statistical users and other government organizations other than MOI or MPI and other non-target enterprises as well as the continuous promotional activities targeting the survey implementation body.

Furthermore, in order to promote understanding to a wider range of public, it is necessary to utilize paper-based promotion tools such as public relations magazines and newspapers.