

No.

タイ王国生産統計開発計画 事前調査報告書

平成 10 年 6 月

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国際協力事業団

鉦調工

98-195

タイ王国生産統計開発計画 事前調査報告書

平成 10 年 6 月

国際協力事業団



1183202 [9]

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1. 調査の概要

(1) 調査の目的

工業生産、出荷、在庫の状況を表す生産統計は、直近の景気の動向を判断する上で重要な経済データであり、政府にとって産業政策のみならず、マクロ経済政策を立案するために不可欠な指標である。また、企業経営者の生産計画の判断材料として、内外の投資家の投資判断材料として、広く活用されている。

生産統計が有効なものであるためには、信憑性、速報性が不可欠であるが、更に今日の経済の国際化に伴い、国際比較可能なものが求められている。

タイ国においても、政府の経済・産業政策立案、産業の振興、海外投資の導入等に寄与する生産統計の整備は、急務の課題となっており、97年6月の日・タイ政策対話(日本：通産省－タイ：工業省)の場で、タイ側から日本側に対し、生産統計分野に係る協力の要請が口頭にてなされ、その後、日本政府に対する正式要請書を準備中であるとの情報に接した。かかる状況から、同年9月に、プロジェクト形成調査団を派遣した結果、通貨危機以降、同国における生産統計の整備に対するニーズは更に高まっており、同国政府は開発調査による協力に対し高い関心と期待を有していることが確認された。また、先方の希望する技術協力の内容が、開発調査で対応可能であることも同時に確認された。同国政府は、プロジェクト形成調査団派遣時の協議も踏まえ、日本政府に対して、生産統計開発計画の正式要請書を提出してきた。

かかる経緯を踏まえ、事業団は、先方関係機関と調査内容についての具体的協議を行い、実施細則 (Scope of Work : S/W) 及び協議議事録 (Minutes of Meeting : M/M) を締結するとともに、本格調査実施のために必要な情報を収集することを目的として、本事前調査団を派遣した。

(2) 調査団構成

団長・総括	宮沢 和男	通商産業大臣官房調査統計部企画・国際室長
統計開発行政	土橋 秀義	通商産業大臣官房調査統計部企画・国際室 企画調整係長
調査企画	朝熊由美子	国際協力事業団鉦工業開発調査部工業開発調査課
統計調査	中村 康	株式会社地域計画連合
電算機システム	長谷川 一	株式会社サイエス
(オブザーバー)	間中 和彦	通商産業大臣官房調査統計部 資源エネルギー統計調査室企画解析係長

(3) 派遣期間・調査日程

平成10年2月22日(日)から3月21日(土・祝)まで

2月22日(日)	【中村団員、長谷川団員】 東京発 バンコク着 TG641
2月23日(月)	JICAバンコク事務所と打合せ 工業省工業経済局 表敬
2月24日(火)～	工業省にて調査・協議
2月27日(金)	
2月28日(土)～	資料整理
3月 1日(日)	
3月 2日(月)	総理府国家統計局 訪問調査 工業省にて調査・協議
3月 3日(火)	工業省にて調査・協議 タイ中央銀行 訪問調査
3月 4日(水)	工業省にて調査・協議 国立開発研究所 訪問調査
3月 5日(木)	SAS Institute Pte Ltd. 訪問調査 Team Consulting Engineering Co., Ltd. 訪問調査 TIS Consultants Co., Ltd. 訪問調査
3月 6日(金)	IBM, Thailand Co., Ltd. 訪問調査 工業省にて調査・協議
3月 7日(土)	資料整理
3月 8日(日)	【土橋団員、間中団員】 東京発 バンコク着 TG641 団内打合せ
3月 9日(月)	JICAバンコク事務所と打合せ 工業省にて調査・協議
3月10日(火)	総理府国家経済社会庁 訪問調査 Fujitsu System Business (Thailand) Ltd. 訪問調査
3月11日(水)～	工業省にて調査・協議
3月12日(木)	

3月13日(金) 工業省にて調査・協議
JICAバンコク事務所と打合せ

3月14日(土) 団内打合せ・資料整理
【間中団員】
バンコク発 東京着 TG640

3月15日(日) 団内打合せ・資料整理

3月16日(月) 総理府国家統計局 訪問調査
工業省にて調査・協議
【宮沢団長、朝熊団員】
東京発 バンコク着 TG641
団内打合せ

3月17日(火) JICAバンコク事務所と打合せ
在タイ日本大使館 表敬
工業省と協議
実施細則(S/W)署名

3月18日(水) 総理府技術経済協力局 表敬
総理府国家経済開発庁 表敬
総理府国家統計局 表敬
工業省と協議

3月19日(木) 工業省と協議
討議議事録(M/M)署名

3月20日(金) 工業省と協議
JICAバンコク事務所 報告

3月21日(土) バンコク発 東京着 TG640

(4) 主要面談者

The Office of Industrial Economics, Ministry of Industry

Mr. Cherdpong Siriwit	Director-General
Mr. Charmroon Malaigkong	Deputy Director-General
Ms. Ounruen Amotyakul	Director, Industrial Information Centre
Mr. Nat Chunkarat	Senior economist, Office of Policy and Planning

Department of Technical and Economic Cooperation, Office of the Prime Minister

Mr. Apinan Patiyanon

Director, External Cooperation Division I

National Statistical Office, Office of the Prime Minister

Ms. Eaimchan Promyothin

Secretary-General

Ms. Jirawan Boonperm

Director, Economic Statistics Division

National Economic and Social Development Board, Office of the Prime Minister

Mr. Arkhom Termpittayapaisith

Director, Economic Analysis & Projection Division

Ms. Kobkul Suwanasai

Director, National Account Division

Economic Research Department, The Bank of Thailand

Dr. Wasana Phongsanarakul.

Economist, Industry Section

National Institute of Development Administration

Dr. Rachain Chitayarangsan

School of Development Economics

日本大使館

木寺 昌人

公使

東條 吉朗

一等書記官

J I C A タイ事務所

岩口 健二

所長

鷺見 佳高

次長

上垣 素行

所員

2. 協議結果

調査団は、工業省工業経済局と、本格調査の枠組みについての協議を行った結果、合意に達し、工業省工業経済局長と調査団長との間で、実施細則（S/W）及び協議議事録（M/M）の署名をおこなった（Appendix 1）。

協議の経緯は以下のとおりである。

（1）本格調査の内容

平成9年9月に派遣した鉱工業プロジェクト形成基礎調査団（タイ・フィリピン統計手法）との協議結果に基づいてタイ側から提出された要請書の「調査の内容」は以下のとおりであった。

【調査の内容】

1. データ収集
2. データ処理・分析
3. データ公表・整理
4. 政策策定及びその他の目的における統計の活用

【調査実施計画】

〔フェーズ1〕

1. 生産統計の現状把握
2. 生産統計のユーザーのニーズの確認
3. 生産統計の商品分類の現状把握
4. 既存の統計システムの問題点の把握
5. 生産統計向上のための基本計画の策定

〔フェーズ2〕

1. 基本計画の実現化のための実行計画の策定
2. タイ側 C/P に対する技術指導を含めたパイロットシステムの開発・改善

調査団は、上記計画の全体像を見据えた上で、調査内容は、フェーズ1の部分についてのみS/Wに記載するものとして、先方の合意を得た。尚、フェーズ1が成功裏に終了し、タイ側日本側双方が合意した場合には、フェーズ1の結果を踏まえて、フェーズ2の内容について協議を行った上で、フェーズ2を実施することを、S/Wに明記した。

調査実施計画（フェーズ1）は、以下のとおりとした。

1. 生産統計及び生産指数の現状及び問題点の整理
2. 生産統計の開発（名簿整理、調査票の企画設計等）
3. パイロット調査の実施（調査実施、データ解析等）
4. 生産指数の開発の検討（作成方法の検討）

尚、パイロット調査の実施については、バンコク近郊までの100社強を対象とする案を日本側から提示し、先方の理解を得た。

タイ側は、特に「公表の早期化」「研修の実施」等を要望し、日本の統計調査の知識習得、職員への技術移転を強く望んでいる。

日本側からは、現状統計の問題点及び計画案、スケジュール等を説明するとともに、具体的な作業を共同で行うことで、職員の知識・技術移転をより深めることが可能になることを説明し理解を得た。

（２）関係機関との連携、調整

日本側から、工業省に対し、本統計調査の改善に必要な統計情報や、ユーザーとしての意見聴取等の観点から、生産統計等を所管する機関（国家統計局（The National Statistics Office, Office of Prime Minister：NSO）、国家経済社会開発庁（The National Economics Social Development Board, Office of the Prime Minister：NESDB）、タイ中央銀行（The Bank of Thailand：BOT）¹⁴¹）との連携が極めて重要であることを説明した。

これに対し、当初、工業省は、各機関の統計調査とは、目的が異なっていることから、意見等を集約し本統計調査の改善に反映させることは非常に困難であるとの懸念を示した。しかし、タイ国における各種統計調査の連携の重要性については徐々に理解をしつつあり、本統計調査の改善に係る必要統計情報の入手等は積極的に行うことで合意した。

本件については、日本側から再三に渡り説明をしたことで、先方の理解を得たと思われるが、今後の重要性に鑑み、本格調査の実施時にも改めて説明し、他機関の参画を図るよう努めることが重要である。

また、工業省工業経済局長においても、他省庁連携の重要性は十分認識をしており、既に各省庁経済担当局長会議において、自身から本プロジェクトを紹介した旨の発言があった。

事前調査団は、国家統計局、国家経済社会開発庁、タイ中央銀行に対し、個別に訪問

¹⁴¹ NSOは工業統計調査（センサス及び年次調査）を実施しており、経済統計を作成している。NESDBはGDPや産業連関表、景気循環表などを作成している。BOTは月単位により、工業生産指数を作成している。

し、開発調査についての説明を行うとともに、今後の連携・協力を要請したところ、いずれの機関も開発調査の実施を歓迎し、積極的に協力を行うことを約束した。これら機関は、本事前調査時においても、資料提供、情報提供に協力的であり、特に国家統計局は、今回の調査と通じて工業省との連携体制（特に地方事務所の活用等）が構築できることに期待を示しており、本格調査実施時には、その可能性についても十分検討することが肝要である。

この他省庁の協力発言については、事前調査団から工業省にもフィードバックし、工業省側も歓迎した。

（３）カウンターパートに対する技術移転

今回の事前調査に加え、鉋工業プロジェクト形成基礎調査団派遣時にも確認されたとおり、先方は調査実施を通じてコンサルタント等によるカウンターパートに対する技術移転を強く希望している。これについては、上述で触れたように、双方の共同作業によって開発調査を実施していくことを説明し、これにより、カウンターパートへの知識・技術移転を効率よく行っていきたい旨を示唆し合意を得た。

事前調査を通じて、カウンターパートの統計調査の改善等に関する問題意識は確実に向上しており、本格調査の実施時には共同作業ということに十分留意し、カウンターパートの問題解決能力の向上に努めることが重要である。

（４）研修員受入

タイ側は、フェーズ１、フェーズ２を通じて、工業経済局工業情報センターの３セクション（工業データシステム班、工業指数班、コンピューターシステム班）から各２名ずつ、計６名をカウンターパート研修に派遣したい旨を希望した。しかし、日本側から１プロジェクトの平均的な研修員受入は２～３名程度であることを説明し、先方はフェーズ１、フェーズ２を通じて最低５名の受入を要望するに留まった。

（５）コンサルタントの資格

タイ側の要請では、コンサルタント団員の資格として、経済学、統計学及びシステム科学の修士または博士号取得者を希望していたが、日本における教育システム等の事情

から、修士及び博士号取得者に限定することは困難であることを説明し、先方の理解を得た。

(6) 機材

機材等については、フェーズ1では、パイロット調査の実施等にパソコン等が必要であると思われるが、これについてはタイ側は、日本側の意向に従うこととした。

(7) プロジェクトの実施体制

調査団はタイ側に対し、本格調査が開始された際には、最低限必要なカウンターパートを配置するよう申し入れたところ、タイ側は、調査実施時には工業情報センター全員で対応する意向であることを示唆した上で、「統計調査－企画・設計」「統計調査－パイロット調査」「生産指数」の担当として、各セクションのチーフクラスの3名を指名し、うち1名を全体の調整担当（総括）に任命した。

【日本側案】

総括・調整担当	1名
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生産統計	
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企画設計担当	2名
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パイロット調査担当	2名
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<u>生産指数担当</u>	<u>1名</u>
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計	6名（人数は延べ数）
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※常時対応は、総括・調整担当者のみ。

3. その他調査の結果明らかになった事項

(1) 財政状況

工業省工業経済局工業情報センターにおける1988年度の予算は700万バーツであり、その半分以上が人件費となっている。予算は厳しい状況であるが、調査に関係する市内電話料金、光熱費の支出等には問題がないものと思われる。

また、フェーズ1で実施するパイロット調査は、現状ではバンコク近郊を対象としていることから、C/Pの交通費等に関しても特段の問題はないと思われる。

但し、昨年以降の金融・経済危機等により、工業省は財務省を通じて世界銀行からの融資を受けている。工業省が現在実施している統計調査の費用も世銀の融資を財源としている。

一方、世銀はタイ国に対し、タイ国製造業の実態調査を依頼しており、これは、国家経済社会開発庁を通じて、工業省工業経済局工業情報センターが調査の実施を行っている。当該調査は1回のみであり、98年6月には終了予定である。

また、工業省内での本プロジェクトの意義、重要性等のアピールは、政策担当者の統計情報の重要性に対する認識度の向上につながり、今後の予算確保等にも非常に有効であるとの担当者レベルからの意見があった。

(2) 先方負担事項

調査団が使用する執務スペースとして、工業情報センター内の1室が確保される。国際電話に接続可能な電話（料金は日本側負担）も同センター内にあり、調査団が使用可能となっている。

4. 本格調査における留意事項

工業省と比較して、統計調査に対する体制が整っている国家統計局においても、統計調査の低回収率は大きな問題となっている。このため、本格調査の実施時には、できるだけ多くのセミナー開催や様々なパブリシティを活用して、客体である事業所等に対し、統計情報の重要性、統計情報の有効活用等についても広く認知させていくことが必要である。また、提供情報の秘匿の保証についても客体に理解をさせることが必要である。

また、フェーズ2終了後には、新たな生産統計の公表が可能となることから、本統計情報がタイ国内に広く認知され、あらゆる場面で活用されるよう努力していくことが必要である。そのためには、生産統計のユーザーである政府政策立案者、政府・民間エコノミスト、企業経営者、内外投資家、マスコミ等に対し、本プロジェクトの活動内容に加え、生産統計の特徴、重要性等を紹介するなどの広報活動を行うことが重要である。

附 属 資 料

1. 実施細則 (Scope of Work)
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10. The 1997 Industrial Census, National Statistics Office
11. Questionnaire Form The 1997 Industrial Census, National
Statistics Office
12. Thailand Statistics Law (英訳)

1. 実施細則 (Scope of Work)

Scope of Work
for
a Study on the Development of Industrial Statistics
in
the Kingdom of Thailand
agreed upon between
the Office of Industrial Economics,
the Ministry of Industry
of
the Kingdom of Thailand
and
the Japan International Cooperation Agency

Bangkok, March 17, 1998



Mr. Kazuo Miyazawa
Leader
Preparatory Study Team
Japan International Cooperation Agency
Japan



Mr. Cherdpong Siriwit
Director General
Office of Industrial Economics
Ministry of Industry
Kingdom of Thailand

I INTRODUCTION

In response to the request of the Government of the Kingdom of Thailand (hereinafter referred to as "Thailand"), the Government of Japan decided to conduct a Study on the Development of the Industrial Statistics (hereinafter referred to as "the Study") in accordance with the Agreement on Technical Cooperation between the Government of Japan and the Government of Thailand signed on November 5th, 1981 (hereinafter referred to as "the Agreement").

Accordingly, the Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the implementation of the technical cooperation programmes of the Government of Japan, will undertake the Study in close cooperation with the authorities concerned of Thailand.

For the smooth implementation of the Study, the Office of Industrial Economics (hereinafter referred to as "OIE"), Ministry of Industry, shall act as a counterpart agency to the Japanese study team.

The present document sets forth the scope of work with regard to the Study.

II OBJECTIVE OF THE STUDY

The objective of the Study is to support the Government of Thailand to develop its industrial statistics covering production, shipment and inventory, with special emphasis on current survey of production and industrial indices.

In order to pursue this objective, the Study will compile a comprehensive report covering such aspects as planning, design, operation and maintenance, data collection and analysis, and staff training, of an agreeable statistical system to be introduced in the Government of Thailand. The Study will also endeavor to develop technical skills and know-how of the administrative and technical staff on statistics of OIE.

III SCOPE OF THE STUDY

The Study will be implemented in two phases: Phase I and II. Phase I will be devoted to the stages up to the general (or conceptual) designing of the agreeable statistical system, and Phase II, to detailed system design, test-running and verification of the said system. The Study will go on to Phase II, provided that the activities in Phase I are successfully completed and by mutual agreement by OIE and JICA.

The present Scope of Work defines the scope of Phase I. The details of the scope of Phase II will be discussed and defined between OIE and JICA toward the

end of Phase I.

In Phase I, the Study shall cover the following items:

- 1 Review of the present situation of the industrial statistics in Thailand and identification of problems of the existing system
 - 1-1 Role of the government agencies and organizations concerned
 - 1-2 Commodity or industrial classification
 - 1-3 Relevant laws and regulations
 - 1-4 Method of survey (Mail or enumerator, object of survey, calculation of each item, etc.)
 - 1-5 Method of examination and tabulation
 - 1-6 Data publishing and arrangement
 - 1-7 Identification of demands for statistical data of the existing and potential users
- 2 Development of the current survey of production
 - 2-1 Preparation of a list of the target enterprises (or establishments)
 - 2-2 Elaboration of the commodity and industrial classification systems (selection of commodity or industry)
 - 2-3 Design of method of survey (Mail or enumerator, cutoff small establishments, etc.)
 - 2-4 Design of the questionnaire
 - 2-5 Consideration of the effective methods of publication
- 3 Pilot survey on production
 - 3-1 Implementation of pilot survey
 - 3-2 Compilation of guidelines (how to fill in for establishment)
 - 3-3 Data analysis
- 4 Development of the industrial indices
 - 4-1 Determination of development strategies for compilation of the industrial indices
 - 4-2 Elaboration of the commodity and industrial classification systems (selection of commodity or industry)
 - 4-3 Consideration of calculation of weight for each industry
- 5 Compilation of recommendations for the development and promotion of effective use of industrial statistics
 - 5-1 For institutional development of the specialized bodies on statistics, with special emphasis on the strengthening of OIE, Ministry of Industry
 - 5-2 User education (public information)

(End of Phase I)

IV WORK SCHEDULE

The Study will be carried out in accordance with the attached tentative work schedule.

V REPORTS

JICA shall prepare and submit the following reports in English to the Government of Thailand in accordance with the attached tentative work schedule:

- Ten (10) copies of the Inception Report
- Ten (10) copies of the Progress Report I
- Ten (10) copies of the Progress Report II
- Twenty (20) copies of the Interim Report
- Ten (10) copies of the Progress Report III
- Thirty (30) copies of the Draft Final Report with a summary
- Thirty (30) copies of the Final Report with a summary

VI UNDERTAKINGS BY THE GOVERNMENT OF THAILAND

1. In accordance with the Agreement, the Government of Thailand shall accord benefits to the Japanese study team as follows:

- 1-1 to permit the members of the Japanese study team to enter, leave and sojourn in Thailand for the duration of their assignment therein, and exempt them from foreign registration requirements and consular fees,
- 1-2 to exempt the members of the Japanese study team from taxes, duties and other charges on equipment, machinery and other materials brought into Thailand for the conduct of the Study,
- 1-3 to provide the necessary facilities to the Japanese study team for unrestricted re-export of equipment and machinery brought into Thailand for the conduct of the Study,

- 1-4 to exempt the members of the Japanese study team from income tax and charges of any kind imposed on or in connection with any emoluments or allowances paid to the members of the Japanese study team for their services in connection with the implementation of the Study, and
 - 1-5 to bear claims, if any arise against members of the Japanese study team resulting from, occurring in the course of, or otherwise connected with the discharge of their duties in the implementation of the Study, except when such claims arise from gross negligence or willful misconduct on the part of the members of the Japanese study team.
2. To facilitate smooth conduct of the Study, OIE shall take necessary measures in cooperation with other relevant organizations,
 - 2-1 to secure the safety of the Japanese study team, when and as it is required in the course of the Study,
 - 2-2 to secure permission for entry into private properties or restricted areas for the implementation of the Study,
 - 2-3 to secure permission for the Japanese study team to take all data and documents (including photographs) related to the Study out of Thailand to Japan, and
 - 2-4 to provide medical services as needed. Its expenses will be chargeable to members of the Japanese study team.
3. OIE shall, at its own expense, provide the Japanese study team with the following, in cooperation with other organizations concerned;
 - 3-1 available data and information related to the Study,
 - 3-2 counterpart personnel,
 - 3-3 suitable office space with necessary equipment in Bangkok, and
 - 3-4 credentials or identification cards.

VII UNDERTAKING OF JICA

- For the implementation of the Study, JICA shall take the following measures:
- (1) to dispatch, as its own expense, study teams to Thailand, and

(2) to pursue technology transfer to the Thailand counterpart personnel in the course of the Study.

VIII OTHERS

JICA and OIE shall consult with each other in respect of any matter that may arise from or in connection with the Study.

TENTATIVE SCHEDULE OF THE STUDY

Month	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct
Order of month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Year	1998						1999									
Work in Thailand																
Work in Japan																
Report	△				△				△		△	△	△	△	△	△
	IC/R				P/R1				P/R2		IT/R		P/R3	DF/R		F/R

IC/R: Inception Report

P/R: Progress Report

IT/R: Interim Report

DF/R: Draft Final Report

F/R: Final Report

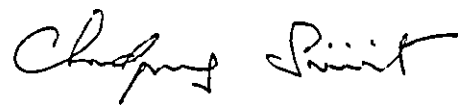
2. 協議議事録 (Minutes of Meeting)

Minutes of Meeting
for
a Study on the Development of Industrial Statistics
in
the Kingdom of Thailand
agreed upon between
the Office of Industrial Economics,
the Ministry of Industry
of
the Kingdom of Thailand
and
the Japan International Cooperation Agency

Bangkok, March 19, 1998



Mr. Kazuo Miyazawa
Leader
Preparatory Study Team
Japan International Cooperation Agency
Japan



Mr. Cherdpong Siriwit
Director General
Office of Industrial Economics
Ministry of Industry
Kingdom of Thailand

A Japanese Preparatory Study Team (hereinafter referred to as "the Team"), organized by the Japan International Cooperation Agency (hereinafter referred to as "JICA") and headed by Mr. Kazuo Miyazawa, visited the Kingdom of Thailand from 22nd of February to 21st of March, 1998, for the purpose of discussing the framework of a Study on the Development of Industrial Statistics (hereinafter referred to as "the Study").

The Team had a series of discussions with the representatives of the Office of Industrial Economics (hereinafter referred to as "OIE"), the Ministry of Industry. The Scope of Work for the Study was agreed upon and signed on 17th of March.

The salient results of the discussions besides the items included in the Scope of Work are as follows:

I Implementing Organizations

JICA will be the implementing agency for the Study from the Japanese side. On behalf of the Thai side, OIE, the Ministry of Industry, will be responsible for the implementation of the Study.

Both sides recognized the importance of close coordination among Thai relevant organizations, such as the National Economic and Social Development Board, the National Statistical Office and the Bank of Thailand, for efficient and effective implementation of the Study and that OIE will act as a coordinating body among such organizations.

II Counterpart personnel

Both sides confirmed that the Study is going to be a collaborative work by the Thai and Japanese sides and that active participation by the Thai side is essential for the success of the Study. Both sides also understood that throughout the process of the Study, JICA Study team will provide on-the-job training to the staff of OIE to help them to enhance further their knowledge and skills.

The Team requested the assignment of the following counterpart personnel for the Study.

- | | |
|--------------------------------|---------------|
| - Organizer/Coordinator | One(1) person |
| - Current Survey of Production | |

Plan/Design	Two(2) persons
Pilot Survey	Two(2) persons
- Industrial Indices	One(1) person

Organizer/Coordinator shall full-time participate in the Study during the period of the work in Thailand.

Thai side replied that the counterpart mentioned above will be appointed by the start of the Study in Thailand.

III Counterpart Training in Japan

The Thai side requested that JICA might accept at least five(5) Thai participants for further training in Japan in the course of the Study; Phase I and Phase II.

The Team mentioned that JICA is preparing to accept minimum two(2) participants in the course of the Study at least in the 1998 Japanese fiscal year.

IV Qualifications of the members of the Japanese Study team

The Thai side mentioned that the members of the Japanese Study team should have qualifications of the Bachelor of Arts and/or Master's degree in Statistics, Economics, Computer Sciences and/or any relevant fields.

LIST OF ATTENDANCE

[THAI SIDE]

The Office of Industrial Economics, Ministry of Industry

Mr. Cherdpong Siriwit	Director-General
Mr. Charmroon Malaigrong	Deputy Director General
Ms. Ounruan Amaryakul	Director, Industrial Information Centre
Mr. Nat Chulkaratana	Senior Economist, Office of Policy and Planning
Mr. Sukit Tantipisit	Chief of the Computer System Section Industrial Information Centre
Mr. Anan Assawasoponkul	Statistician, Industrial Information Centre
Ms. Venus Suetrong	Industrial Technical Officer, Industrial Information Centre
Ms. Piyanuch Sirayaporn	Statistician, Industrial Information Centre
Ms. Sompit Narksook	Industrial Technical Officer, Industrial Information Centre
Ms. Nanta Yakham	Industrial Information Centre
Mr. Pongsawud Prapinpong	System Analyst, Industrial Information Centre

[JAPANESE SIDE]

Member of the Preparatory Team

Mr. Kazuo Miyazawa	Director of Planning and International Office Research and Statistics Development Department Ministry of International Trade and Industry (MITI)
Mr. Hideyoshi Dobashi	Chief of Planning and International Office Research and Statistics Department Ministry of International Trade and Industry (MITI)
Mr. Yasushi Nakamura	Senior Consultant Regional Planning International Co. Ltd.
Mr. Hajime Hasegawa	Consulting Engineer Syos Co., Ltd.
Ms. Yumiko Asakuma	Industrial Development Study Division Mining and Industrial Development Study Dept. Japan International Cooperation Agency (JICA)
Mr. Kazuhiko Manaka	Office of Statistics Administrator for Natural Resources and Energy Research and Statistics Department Ministry of International Trade and Industry (MITI)

3. タイ工業省における生産統計等の現状調査

タイ国工業省における生産統計等の現状調査

1. 工業省(MOI)における生産統計調査の現状

1. 調査実施体制

工業省の工業経済局(OIE : Office of Industrial Economics)の中の一つの課である工業情報センター(IIC : The Industrial Information Center)が実施しており、同センターは、センター長(Director)Ms. Ounruan Amatyakulのもと、4つのセクションからなる：

① 管理係(Administrative Sub-section)	: 常勤 2人
② 工業データ・システム(IDSS : Industrial Data System Section)	: 常勤10人、臨時5人
◇生産統計のデータ収集・処理・普及、フォローアップを担当	
③ 工業指数班(IIS : Industrial Index Section)	: 常勤 5人
◇工業指数の作成、及びデータ分析を担当	
④ コンピュータ・システム班(Computer System Section)	: 常勤 16人
◇コンピュータ・システム班は工業省全体のシステムも担当しており、IICでの生産統計関連の業務は同班のシステム・アナリスト 1名が担当している。	

☆同センターの予算は、1996年は2000万バーツであったが、1997年には約780万バーツ(うち人件費430万バーツ)、1998年は700万バーツ(うち人件費500万バーツ)に削減された。ただし、コンピュータ・セクションの設備予算額は別枠である。

2. 調査開始の経緯と関連法規

1995年6月14日付の省令 (Ministerial Regulation) によって、Factory Act(1992年)に規定するFactory 2 及びFactory 3 (注)に対して、1995年第4四半期から翌四半期の最初の15日までに調査票(Form 5)に基づいて必要なデータを提出することを義務づけ調査を開始した。

これまでも、チュラロンコン大学(約200万バーツで依頼)、TDR(Thailand Development and Research Institute)等の民間機関に委託し、統計調査の改善を行ってきたが、満足する結果が得られなかった。また、1994年には、コンピュータのハード・ソフトを含んでTDRに委託(1300万バーツ)したものの、これについても満足できる結果ではなかった(現在、ほとんど機能していない)。

(注)FactoryのタイプはFactory Actによって、次のように分類されている。

Factory 1 : 従業員20人未満かつ20HP (Horse Power)未満の動力の機械設備

Factory 2 : 従業員20人以上50人未満あるいは20HP以上50HP未満の機械設備

Factory 3 : 従業員50人以上あるいは50HP以上の機械設備

3. 調査実施方法

(1) 母集団名簿

IDSS（工業データ・システム班）によって、数年かけて母集団名簿の準備がなされた。工業省のDOW（Department of Works）で担当している工業登録簿をベースに毎回の調査票のデータによって更新をしている。この名簿は当初の登録データとその後、毎月の新規登録の情報が工業省の各県事務所からDOWとは別個に、直接IICへも送られてきてIICの内部資料として更新されている（このデータは、コンピュータセクションのオペレータによって入力処理されている）。

IICで使用している工業登録の情報項目は、登録番号、事業所名、所在地・電話番号、生産品名、原材料名、生産能力、従業員数（男女別）、投資額、HORSE POWERである。

また、調査対象事業所の番号は特別には設定されておらず、登録番号をそのまま利用している。登録番号の採番は次のようになっており、母集団名簿はFactory Type（業種）毎に管理されている。

(例) 3-50(4)-1/3700

- 3 : 事業所のタイプを示し調査対象となるFactory Type 2と3の区別をしている。
- 50(4) : Category or Type of Factoryに基づく分類コード(TSICの5桁と対応)
- 1 : 登録年、県、分類の中での連番
- 37 : タイ年号による登録年
- 00 : タイ語による各県の略号

IICによると、精米業を含んで、約10万の事業所が工業登録されており、そのうちFactory 2とFactory 3に登録されているものが約32,000事業所あるということである。

(2) 分類

TSIC（タイ標準産業分類：Thailand Standard of Industrial Classification）は5桁分類で、工業省ではFactory Typeと対応して利用されている。

TSICは1972年、内務省（Ministry of Interior）のDept. of LaborでISIC Rev 2に基づき作成され、その後、変更がなされないため、これをベースとして、各省庁それぞれが、独自の目的のために細分類を作成している。したがって、NESDBのQuarterly GDP Construction Steering Committeeでは、TSICの統一が議論されている。また、現在、内務省から独立したMinistry of LaborによってISIC（国際標準産業分類:International Standard of Industrial Classification）Rev. 3に基づくTSICに変換作業中である。

(3) 調査票

現在使用している調査票の項目は以下の通りである。

一般情報 (General information)	
1	記入者氏名
2	工場名 (タイ語・英語) / 登録番号
3	工場所有者名 / 工場長名
4	事務所 / 工場の所在地・電話番号
データ 1	
5	資産 / 資本額 (最新簿価) ①土地、②建物・その他の建設物、③機械装置、④運転資金、⑤その他資産
6	投資優遇の有無
7	資本の割合 (タイ・外国資本)
8	生産能力の拡大投資 (前年能力 / 拡張額)
9	年間生産能力 (品目別・単位・年間生産能力・月別%)
10	生産量 (品目別・単位・四半期月別)
データ 2	
11	販売量 (品目別・単位・国内 / 輸出別月量)
12	販売額 (品目別・単位・国内 / 輸出別月額)
データ 3	
13	原材料使用量 (国内 / 輸入別・原材料別量・金額)
エネルギー使用のデータ	
14	エネルギー投入消費内訳 非常に詳細な種類別データを要求
労働データ	
15	労働投入 工場の従業員数、一人当たり労働時間数、各月の労働日数
16	生産の問題点 (選択式) ①製品の品質、②購入者からの苦情で返品された製品、③生産コスト ④廃棄物処理の問題、⑤政府によって支援されるマーケティング上の問題、 ⑥工場閉鎖の原因

(4) データ処理、スケジュール等

上述のように、四半期毎の調査票は翌四半期の初めの15日までに提出されることになってはいるが、回答者からの提出が遅く、回収には約2ヶ月を要している。回収されても完全な回答は少なく、電話によるフォローアップも重要な活動となっている。データ処理とフォローアップには多大な時間と労力がかかって、さらに数ヶ月を要している。また、現在のコンピュータ・システム (DELPHIというアプリケーション・ソフトを使用) は最終の製表段階は使えず、IICで独自にEXCELで製表フォームを作って必要データを入力するなど、二重作業を余儀なくされており、システムが機能していない。

母集団名簿である登録情報の更新には、別のシステム (FoxProというアプリケーション・ソフトを使用) を使用しており、これはDELPHIのシステムとのリンクがなされていないため、別個の管理がなされている。

IICでは入力にかなりの時間がかかるとの悩みを持っているが、これは、コンピュータ・システムを含む全体のシステムが効率的に考えられていないことによるものと推測できる。

したがって、公表までの期間として約9ヶ月を要している。

4. 回収率

調査票のフォームは上記省令の公布の時に各事業所に配布しただけで、その後は配付しておらず（初回のみ配布）、各事業所がコピーを取って提出することが前提となっている。IICでは期限に提出されてくるのを待っているだけで、この後、未提出の事業に対して督促を行っている。

したがって、最初の調査票の回収率は52%であったが、その後の調査では、回を重ねる毎に回収率は徐々に下がり、1997年第4四半期では26%まで低下している。

回収率低下の原因は、調査票配布の問題（初回のみ配布）に加えて、データの提供によって税が加算されるのではないかなというような回答者側の認識の問題が大きいようである。。

下表は、IICが提示した回収率である。

調査時期	回収すべき総件数(注)	回収件数	回収率
1995年第4四半期	29,468	15,224	51.66%
1996年第1四半期	29,468	8,962	30.41%
1996年第2四半期	29,468	8,553	29.02%
1996年第3四半期	29,468	8,504	28.86%
1996年第4四半期	29,468	8,606	29.20%
1997年第1四半期	29,468	8,305	28.18%
1997年第2四半期	29,468	8,213	27.87%
1997年第3四半期	29,468	8,052	27.32%
1997年第4四半期	29,468	7,525	25.54%

注：総件数が同数なのは、最初の調査の時に配付した約32,000の事業所のうち、廃業、住所変更などで戻ってきたものを除いた件数をそのまま採用しているためである。

5. 生産指数

現在は、生産指数(Production Index)、実稼働率指数(Capacity Utilization Index)、労働投入指数(Labor Input Index)及び労働生産性指数(Labor Productivity Index)を作成している。

現行では、個別品目の指数のみで「上位分類」や「製造業総合」指数は作成されていない。

上述で述べたようにコンピュータ・システムが機能的に働いておらず、指数作成班でも必要なテーブルはEXCELによって作成しており、ここに調査票の原データを直接入力している。これは、IDSS（工業データ・システム班）とIIS（工業指数班）では、同じ調査票データを別個に入力していることになり、非常に非効率な作業体制となっている。ただし、同じ製品でもサイズ、カラーなどの違いがあるものについては、IDSSでは合計を入力し、IISでは指数用に個々のデータを入力している等の違いはあるようである。

また、データチェックは、人間の目によるチェックのみであり、機械的なチェック機能はない。この目チェックにより、前月データとの比較で大きく変化があるものについては、電話等により確認をしている。

多品目の製品を生産している場合、労働生産性指数を計算するために従業員数を生産額によって比例配分している。

6. 公表方法

最新の公表物は1996(Jan)－1997(Mar)までのデータで、生産統計用45品目、指数用では、生産性指数42品目、生産能力指数36品目、労働生産性指数30品目、労働投入指数25品目である。

公表する品目の選定にあたっては、産業連関表の付加価値額、輸出額を参考にしているといっているが、結局は調査票の回収率に左右されている。

最初の調査の時に公表できた品目については、次回以降も公表できるよう督促等をして回収率の向上を図っており、回を追う毎に公表できる品目数を増やすよう努力をしているようである。

7. 現状の問題点

以下のような問題点が上げられる。

- (1) 公表の遅れ（調査票回収の遅れ）：調査票の回収は、四半期毎に行っており、かつ、実際に回収できるのは各四半期末から約2ヶ月を要しているため、データを入力するまでに最大約5ヶ月の遅れとなっている。この後に編集作業と電話によるフォローアップ作業に更に膨大な時間と労力がかかっている。このため、公表に至るまで約9か月近くかかるため、時宜を逸した統計データとなり、動態をみるデータとしては価値の低いものとなっている。
- (2) データ入力作業等の重複：事務処理については、コンピュータ・システムがその本来の機能を果たしていないため、現在、二重、三重のデータ編集作業が発生している。つまり、①母集団名簿更新のための入力、②（名簿とのコンピュータ・リンクがなされていないため）調査票の事業所名から各調査項目毎のデータ入力、③（各調査項目と結果表出力及び指数作成のためのデータベースが機能していないため）IDSS（工業データ・システム班）、IIS（工業指数班）それぞれが別のシステム（EXCEL）の結果表のフォームに必要なデータを直接入力し、公表用のフォームを作成している。

Ⅱ. 工業省（MOI）の統計システムの現状

1. システム関連の実施体制

工業省工業経済局工業情報センターのコンピュータ・システム班には16人が配属されており、内プログラマーが10人、データ・エントリーが4人いる。プログラマー10人は、全て新人であり、この新人達は①ORACLEでデータベース及びSQLを、②SUN MICROSYSTEMS でUNIX SYSTEMを、③SAMARTで開発手法等の研修を約4か月かけて受講させている。

2. 既存データベース

1996年にTDRI(THAILAND DEVELOPMENT RESEARCH INSTITUTE)に委託開発を行っており、FOXPRO, DELPHIを使ったSYSTEMを1年かかって開発している。システム構成は、PRIMARY DATA SYSTEM (質問票の処理)をDELPHIのデータベースに、SECONDARY DATA SYSTEM (工場登録)をFOXPROのデータベースで対応した形態をとっている。

3. コンピュータシステム環境

(1)工業省(MOI)内のコンピュータシステム

工業省内のコンピュータシステムの環境は、以下のとおり。

- FILE SERVER - SIEMENS NIXDORF MODEL PCE-5S/60
 - CPU INTEL PENTIUM 60 MIIZ
 - CACHE 256 KB, RAM 64 MB
 - HARD DISK 2GB, 3.5"×5.25" FDD
- PC CLIENT - SIEMENS NIXDORF MODEL PCD-4H/33 WITH ETHERNET LAN
 - CPU INTEL, 486DX 33MIIZ, RAM 16MB
 - HARD DISK 170MB, 3.5"×5.25" FDD
- PRINT SERVER - HEWLETT PACKARD HP LASERJET 4 PLUS
 - 600×600 DPI
 - 12 PAGES PER MINUTE
 - 25MHZ RISC BASED PROCESSOR WITH 4MB
- DOT MATRIX EPSON MODEL LQ 1170
- INKJET HP MODEL DESKJET 560C
- HUB 24 POIRT UTP
- MODEM ZYXEL MODEL U-1496E
- UPS 1 KVA POWER SAVER MODEL 1000 VR
- UPS 500 VA
- LAN VIRUS PROTECTION "NORTON FOR NETWARE V1.0
- NETWARE V3.12 10 USERS LICENSES
- BOLAND DELPHI FOR WINDOWS 95 VERSION 2
- MICROSOFT FOXPRO 2.6
- MICROSOFT OFFICE 95

(2)地方事務所のコンピュータ事情

工業省には3の地域事務所が置かれている。

- ◇NORTH-EASTERN INDUSTRIAL ECONOMIC AND PLANNING CENTER
- ◇SOUTHERN INDUSTRIAL ECONOMIC AND PLANNING CENTER
- ◇NORTHERN INDUSTRIAL ECONOMIC AND PALNNING CENTER

これらに、クライアント/サーバーがあり、その構成は、次のようである。

- FILE SERVER SIEMENS NIXDORF MODEL PCD-4H/33 WITH ETHERNET CARD 10 BASE 2
 - CPU INTEL 486 DX 33 MHZ
 - CACHE 8KB, RAM 8MB
 - HARD DISK 500 MB, 3.5"×5.25" FDD
- PC CLIENTWS SIEMENS NIXDORF MODEL PCD-4H/33
 - WITH ETHERNET CARD AND INTERFACE PORT
 - CPU INTEL 486 DX 33MIIZ, RAM 4MB
 - HARD DISK 170MB, 3.5"×5.25" FDD
- PRINTER DOTMATRIX EPSON MODEL LQ1170 WITH SHARE PRINTER BOX
- MODEL ZYXEL MODEL U-1496E
- UPS 500VA
- NETWARE V 3.12 5 USERS LICENSES

Ⅲ 現地ソフトウェア開発企業の現状調査

今後、統計調査の改善に伴いシステム開発を行う際、現地企業への開発委託の可能性を念頭に、タイ国内企業の実態調査を行った。

1. タイ国内におけるソフトウェア企業とは

タイ国内のソフトウェア開発企業は、大きく分けて、IBM、富士通、SASに代表される外資系と、SAMART, SHINAWATEA(SC&C), LOXLEYに代表される国内企業がある。前者は、他国から必要に応じてSEもきており、世界レベルのサポートを受けてられる体制となっている。SE、プログラマー等のサービスは、月50万円～200万円、後者（国内企業）は、月10万円～80万円位が相場となっている。

2. 各企業の現況

(1) FUJITSU System Business (Thailand) LTD

Location : 444 Olympia Thai Tower Bldg. 12F1, Ratchadaphisek Rd. Samsen Nok, Huai Khwang, Bangkok 10320
Tel. 512-6066 Fax. 512-6068

Established: 1989

Annual sales: 800-900MB

Number of employees: 100人(SE45人)。その内、日本人4人、インド人2人

Monthly rate: 一般に25万バーツ、デザインができる者は40万バーツ。富士通本社との連携も可能であるとのことである。

(2) IBM Thailand Company Limited

Location: Phaholyothin Road, Samsen-nai, Phayathai, Bangkok 10400
Tel. 273-0041 Fax. 273-0664

Established: 1952

Registered Capital : 26 million バーツ

Number of Employees: Approximately 460

1996 Revenue : 7,483 Million バーツ

1995 Revenue : 6,782 Million バーツ

1994 Revenue : 5,300 Million バーツ

Company On-going Activity for Thai Community

- CU Cyber Zone at Chulalongkorn University
- TU Net Square at Thammasat University
- International Computer Olympic Camp
- IBM Computer World at Science Center
- Pioneer computer on-line for visiting prisoner's at Bureau of Correctional Institution for Drug Addicts
- IT Mobile

(3) SAS Institute

Location : 919/1 Jewelry Trade Center #3-4, 15th Fl Silom Rd, Bangkok 10500
Tel. 267-1743 Fax. 267-1747

Established : 1995

Annual sales : 30 sites installed in Thailand

Number of employees : 4400 in worldwide and 8 in Bangkok

◇ SAS Institute社は、自社のパッケージ・ソフトウェアだけで、十分に工業統計調査システムの開発が可能であると言っている。
一人で一日12スクリーンのデザイン作成が可能であり、そのコストは一人一日US\$800、1ヶ月でUS\$13,000とのことである。ライセンスは、このアプリケーションの場合、最初の一年がUS\$15,000、二年目から半額となる。教育は、毎月2回無料のコースが開かれている。

(4) SAMART Corporation Public Company Limited

Number of employees : Approximately 1,500 employees

Actual Programming Development:

Number of customer

Office of Industrial Economics (工業省)

Thai Industrial Standard Institute

Department of Industrial Work (工業省)

Samart Paging Company

Name of programming development

Executive Information System (EIS)

Office of Industrial Economics

Management Information System (MIS)

Thai Industrial Standard Institute

Graphical Information System (GIS)

Department of Industrial Work

On-line Pollution Application

Department of Industrial Work

Factory Registration Application

Department of Industrial Work

Machine Registration Application

Department of Industrial Work

Billing System

Samart Paging Company

Machine type and system

Depend on Project Requirement such as:

Machine : SUN Enterprise Server, IBM RISC6000 Server

System : UNIX, Solaris, Windows NT, AIX

Programming Language :

Developer/2000, Oracle Express, Progress, etc.

【参考】

<タイ国における情報システムの現状>

◇「COMPUTER PROFESSIONAL INFORMATION 1997-1998」によると、中・大型システムは、1996年に995台出荷され、その内39.1%が UNIX、60.9%が NON-UNIXである。IBM, SUN MICROSYSTEMSとDIGITALが多いようである。

◇ワーク・ステーションとしては、UNIXとWINDOWS NTが主流である。1996年には、ワーク・ステーションが1807台出荷され、SUN MICROSYSTEMS, HEWLETT PACKARD, IBM, DIGITALなどのシェアが大きい。

◇パーソナル・コンピュータは、1996年に321,782台出荷され、その内90.9%がデスクトップ、6.4%ポータブル、2.4%がPCサーバーである。ACER, COMPAQ, IBM, LASER, DIGITAL のトップ5が約54%のシェアを確保している。

バンコックの秋葉原と呼ばれるパンテップCOMPUTER CENTERなど見て回った感じでは、COMPAQが強いようである。

◇一方、ソフトウェアは、ウインドーズ95とマイクロソフト・オフィスが、主流である。タイ語は、15年ほど前よりサポートされており、キーボードの表示、スクリーン、プリントアウトなどもタイ国語と英語で対応している。

◇ソフトウェアの開発は、大学で、マイクロソフトのFOXPRO、BOLANDのDELPHI等の製品を中心とした専門学校的な教育を行っているため、他の東南アジア諸国と同じようにFOXPRO, DELPHIを使ったシステムが多い。このため、他の言語に精通したSE, プログラマーが不足しており、全体の開発能力は、日本の15年～20年前の状態と言う人もいる。

◇価格については、ハードウェアは、日本とほぼ同額か、少し高い程度であり、ソフトウェアは、タイ語バージョンということもあり、英語バージョンに比べ約2倍、日本バージョンに比べて2～3倍程度高い状況である。

4. Office of Industrial Economics, Ministry of Industry

TELEPHONE NUMBERS

Main telephone	247-7895-8
Fax Number	245-6659
Director-General	202-4251
Deputy Director-General	202-4255
Internal Auditor	202-4262
Office of the Secretary	202-4270
Monitoring and Evaluation Division	202-4335
Policy and Planning Division	202-4303
Industrial Economics Study Division 1	202-4368
Industrial Economics Study Division 2	202-4383
Industrial Information Center	202-4356
The Regional Industrial Economics Division	202-4291
Coordination Division	202-4382
International Industrial Economics Division	202-4304
Financial Sub-Division	202-4277
Personnel Sub-Division	202-4273
Supplementary Administrative and Public Relations Sub-Division	202-4274
Clerical Support Sub-Division	202-4272

Published by : Supplementary Administrative and
Public Relations Sub-Division
Office of the Secretary
Office of Industrial Economics



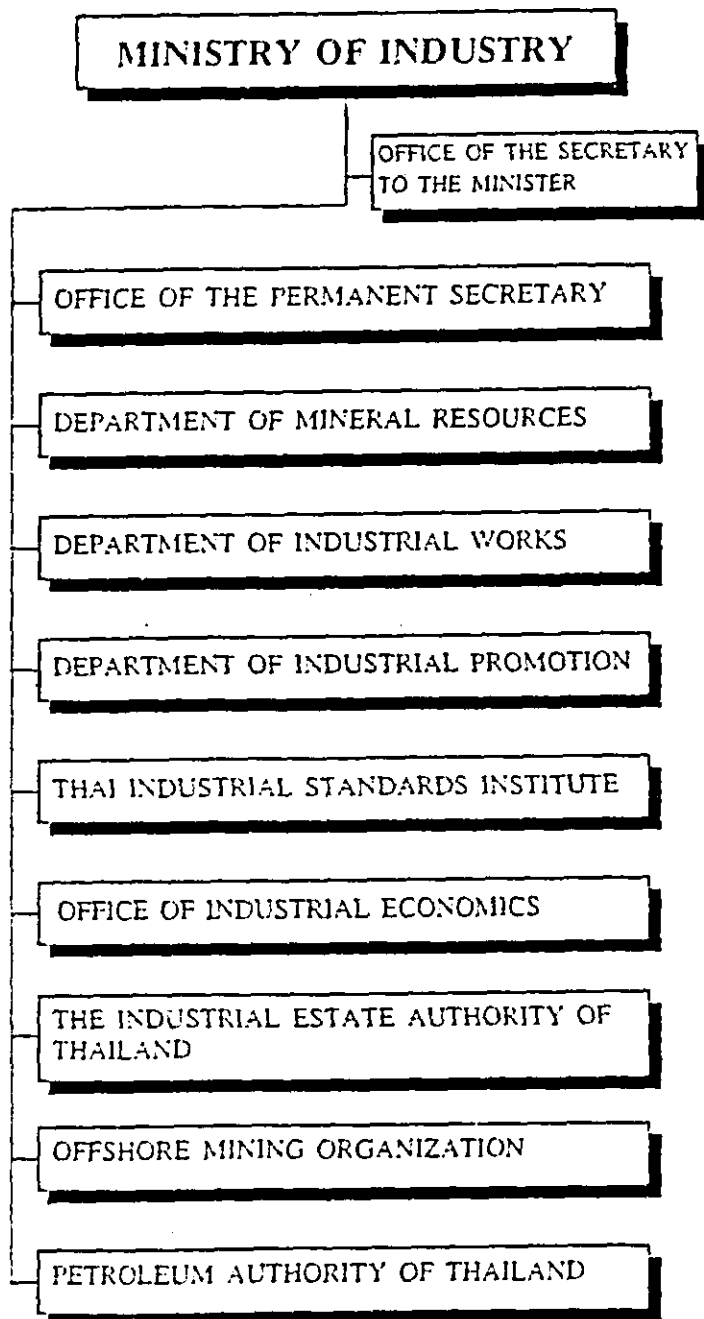
OFFICE OF INDUSTRIAL ECONOMICS MINISTRY OF INDUSTRY

Rama VI Rd., Ratchathewi, Bangkok 10400

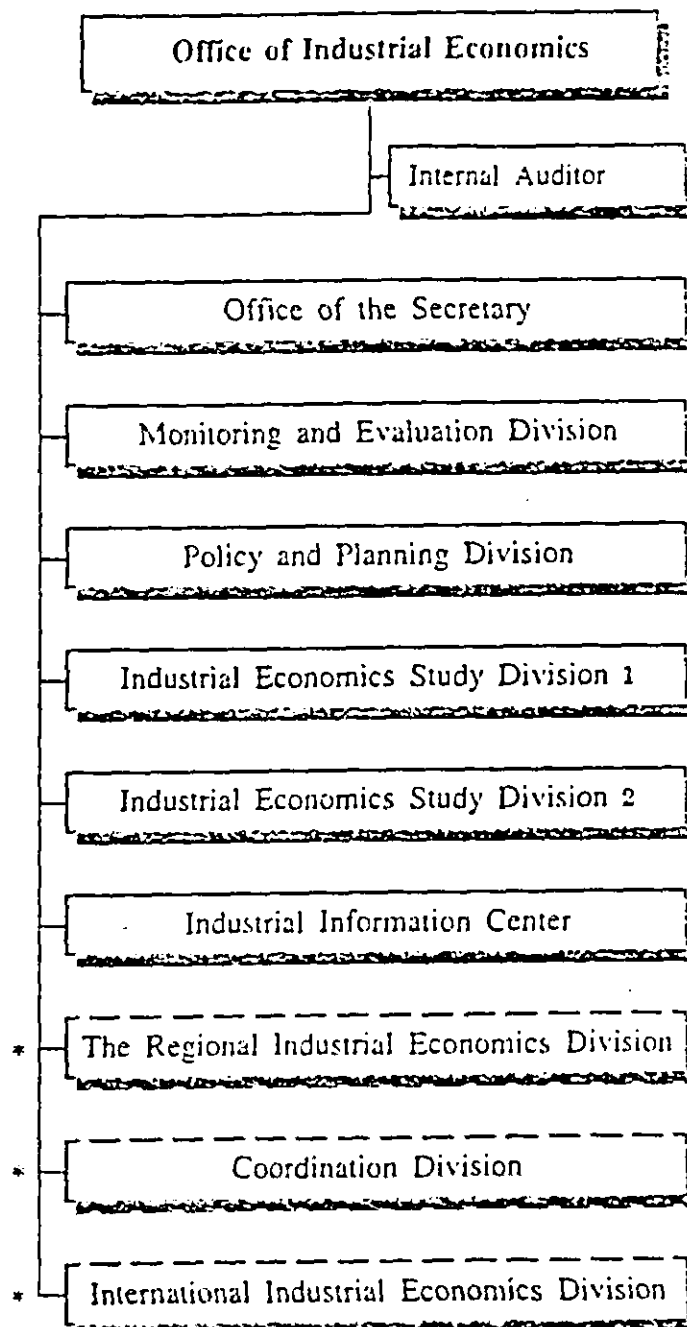
TEL. 247-7895-8

FAX. 245-6659

Organization Chart of the Ministry of Industry



Organization Chart of the Office of Industrial Economics



* Internally established divisions

Office of Industrial Economics (OIE)

Office of Industrial Economics (OIE) is established by the decree dated 2535 B.E. As a strategic planner for the Ministry of Industry, the agency is given four distinct responsibilities by law. First, the agency is responsible for coordinating and synchronizing the ministry's policies in the same directions as those of Thailand's National Economic and Social Development Plans. Second, OIE is in charge of monitoring and evaluating all projects in the ministry. Third, OIE analyzes, studies and examines various industrial sectors, such as petrochemical and automotive sectors. This information is used in formulating national industrial policies. Fourth, OIE serves as the industrial information center for the ministry.

Given the dynamic nature of the global economy, OIE finds it necessary to bear more responsibilities in addition to its legal mandate. These functions lie in the areas of international industrial relations, sub-regional economic cooperation and coordination of inter-agency and intra-agency committees. Regarding its international industrial relations, OIE is closely involved in trade negotiations, representing the ministry in forums such as AFTA (ASEAN Free Trade Agreement) and APEC (Asia-Pacific Economic Cooperation). On sub-regional economic cooperation, OIE is an agency that spearheads the formation of economic cooperation zones with Thailand's neighbors. For example this includes Indonesia-Malaysia-Thailand Growth Triangle.

With an increase in inter-ministerial and intra-ministerial economic committees, OIE serves a role of secretary for economic committees, advising and informing the committees.

Detailed Functions of Divisions within the Office of Industrial Economics

Office of the Secretary

Office of the Secretary provides administrative services for the Office of Industrial Economics. These include clerical support to other divisions, coordinating activities, distributing office supplies, personnel management and public relations.

Monitoring and Evaluation Division

Monitoring and Evaluation Division supervises and follows up the work projects of agencies in the Ministry of Industry. The goal is to ensure that work projects follow the ministry's long-term goals.

Policy and Planning Division

Policy and Planning Division proposes the ministry's long-term plans and the Industrial Master Plan. Further, the division is involved in formulating action plans and an annual budget in accordance with the main theme of the National Economics and Social Development Plans. In addition, this division also advises both the ministry and the private sector on the industrial directions.



Industrial Economics Study Division 1

Industrial Economics Study Division 1 examines state of beings of basic industrial sectors, such as petrochemical, chemical, metal bases, and nonmetal bases. The goal is to set policy outputs and long-term plans and to propose solutions to problems among these industrial sectors.



Industrial Economics Study Division 2

Industrial Economics Study Division 2 studies basic industrial sectors, such as agrobusiness and food, textile, wood, paper, machineries, electrical appliances and electronic products. The objective is to be able to set policy directions and long-term planning and to provide solutions to any shortcomings.

Industrial Information Center

Industrial Information Center organizes and surveys industrial information. Among its many functions, one is to produce industrial indices and to forecast industrial production capacity.

The Regional Industrial Economics Division

The Regional Industrial Division analyzes and studies industrial decentralization and industrial regional cooperation among Thailand's neighbors. Such a role is outlined in the industrial master plan, the National Economics and Social Development Plans, the government's policy and the ministerial policy. Moreover, the division also monitors the regional economics development, gathers regional information, and provides recommendation to the ministry.

Coordination Division

Coordination Division is responsible for providing academic and policy recommendation to the top echelons of OIE. This division coordinates activities among governmental agencies and between the public and the private sectors. It also serves as the secretary to various committees.

International Industrial Economics Division

International Industrial Economics division focuses on the international aspect of OIE. Specifically, this entails analyzing multilateral agreements, formulating Thailand's positions in negotiation forums, and finding means to enhance Thailand's industrial competitiveness.

Necessary Information of Factory Operation
--

Annex of Ministerial Law No. 9 B.E. 2538 (1995)

in accordance to Factory Act B.E. 2538 (1995)

For Official

Type of Industry TSIC CODE

Dear Director of Industrial Economics Office. ;

May I report the necessary information of the factory operation in
the quarterly period of..... B.E..... between Month..... to
Month..... as follows :

General Information

1. Name of data filler

2. Name of Factory Operator

(in Thai)

(in English)

Factory I.D. Number

3. Name of Factory Owner / Factory Manager

4. Address of Office / Factory

Address of Office Number

Mue

Lane

Street

Tambol

Amphur

Province

Postal Code

Telephone

Fax

Address of Factory Number

Mue

Lane

Street

Tambol

Amphur

Province

Postal Code

Telephone

Data on Industrial Situation (1)

5. Value of Asset and Capital (Last Accounting Record)

5.1 Land	Baht
5.2 Building and Other Construction	Baht
5.3 Machinery and Equipment	Baht
5.4 Revolving Capital	Baht
5.5 Other Asset	Baht
Total	Baht

6. Investment Promotion

- () Receiving Investment Promotion Certificate
 from Year to year
 () Not Receiving Investment Promotion Certificate

7. Proportion of Investment

Thai %
 Foreigner %

Indicate countries of Joint Venture

8. Investment on Production Capacity Expansion

Number of Investment on Production Capacity Expansion times Please indicate
 B.E. of such Investment: Previous Production Capacity and the Amount of Expanded
 Production Capacity)

Year B.E.	Previous Production Capacity	Amount of Expanded Production Capacity

9. Present Production Capacity per Year

SECTOR Code (for Official)	Items	Unit	Present Production Capacity per Year	Production * Capacity Rate		
				Quarter B E		
				Month	Month	Month

* Production capacity rate means production quantity
computed as the percentage of the production capacity

10. Production Quantity

SECTOR Code (for Official)	Items	Unit	Quarter B E		
			Month	Month	Month

Data on Industrial Situation (2)

11. Sale Quantity

SECTOR Code (for Official)	Items	Unit	Domestic Sale			Export		
			Quarter.... B E...			Quarter B E		
			Month	Month	Month	Month	Month	Month

12. Sale Value **

SECTOR Code (for Official)	Items	Unit	Domestic Sale			Export		
			Quarter . . . B E . . .			Quarter . B E .		
			Month	Month	Month	Month	Month	Month

** Sale Value means sale quantity times selling price at factory gate (not including transport cost)

Data on Industrial Situation (3)

13. Raw Materials Used in the Production of Quarter of B.E. between
Month to Month

[illegible]

Data on Energy Used

14. Type of Energy Utilization

Horse power of machine driving by engine motor H P

Horse power of machine driving by electric motor H P

Horse power of machine driving by steam turbine motor H P

14.1 Data of Petroleum Products and Fuels used by type in the past year round B.E.

Type of Product	Unit	Quantity Used					Value (Bahr)
		Used as Raw Material	Used with Steamer	Used as Direct Fuel	Other Use (Indicate)	Total	
Petroleum Product							
a. Benzine	Litre						
b Super Benzine	Litre						
c Kerosene	Litre						
d High Speed Diesel	Litre						
e Low Speed Diesel	Litre						
f Furnace Oil, 600 seconds sticky rate	Litre						
g Furnace Oil, 1,600 seconds sticky rate	Litre						
h Furnace Oil, 2,000 seconds sticky rate	Litre						
i Furnace Oil, sticky rate not available	Litre						
j Condensate	Litre						
k Natural Gas	Cu Ft						
l LPG	Kg						
m. Asphalt	Kg						
n Lubricating Oil	Litre						
o Grease	Kg						
p Other (indicate)							
Solid Fossil Fuels							
a Coal	Kg						
b Lignite	Kg						
c Anthracite	Kg						
d Coke	Kg						
e Other (indicate)							

Type of Product	Unit	Quantity Used					Value (Baht)
		Used as Raw Material	Used with Steamer	Used as Direct Fuel	Other Use (Indicate)	Total	
Renewable Energy							
a. Wood	Kg						
b. Charcoal	Kg						
c. Paddy Husk	Kg						
d. Cane Fibre	Kg						
e. Other (indicate)							

14.2 Data on Other Energy Used in the past year round B.E.

Type of Product	Unit	Quantity Used	Value (Baht)
Electricity Use			
Purchased from Outside	Kw-Hour		
Own Factory-Made	Kw-Hour		
Maximum Electricity Energy Used	Kw		
Steam Use			
In the Production Process	Ton		
For Electricity Generation and Others	Ton		

Data on Labour

15. Number of Workers and Working Hours (8 Hours per Shift) Number of Shift:

Items	Unit	Quarter: B E		
		Month	Month	Month
Number of Total Workers in Factory	Person			
Number of Working Hours (of Workers) in Factory per Day per Worker	Hour			
Number of Working Days (of Workers) in Factory per Month	Day			

16. Production Problems

16.1 Product Quality

- () Product receives Quality Standard Logo from
- () Product does not receive Quality Standard Logo

16.2 Products were returned or received complaints from buyers

- () highly
- () moderately
- () low
- () none

16.3 Costs of Production

- () Increased
 - () highly
 - () moderately
 - () low
- () Decreased
 - () highly
 - () moderately
 - () low
- () no change

16.4 Problems of Waste Disposal were

- () high
- () moderate
- () low
- () none

16.5 Marketing Problems which need Government Supports (Please indicate)

16.6 Causes of Factory Operation Closure

() Having Because of

() None

Signature Factory Operator

Factory Type

Remarks (1) All information or data in this questionnaire will be kept strictly confidential

(2) Having any problems in filling this questionnaire, please contact the Center of Industrial Information, Office of Industrial Economics Ministry of Industry

CATEGORY OR TYPE OF FACTORY

AN UNOFFICIAL ENGLISH TRANSLATION
BY VIBOOL CHANDRANGSU
THAI-GERMAN INVESTMENT PROMOTION SERVICE
C/O THE OFFICE OF INDUSTRIAL ECONOMICS
MINISTRY OF INDUSTRY
TEL : 202-4320 71

CATEGORY OR TYPE OF FACTORY

Fact 1	Fac	Ftype
001	00	Curing of tea or tobacco leaves
002	01	Boiling, steaming or desiccating of plants or seeds
002	02	Cracking of seeds or seed shell
002	03	Pressing of jute or tobacco leaves
002	04	Squeezing or separating of cotton fiber from the seeds or spinning or pressing of kapok
002	05	Storing or transporting of plants, seeds, products from the plants in silo or go-down
002	06	Grinding or shredding parts of plants, which are not the seeds or rootstocks of plants
002	07	Burning of charcoal from coconut shell or grinding of charcoal or packing of charcoal powder
002	08	Breeding of spore, orchids or bean sprouts
002	09	Sifting, washing, selecting or separating of size or quality of agricultural products
002	10	Preserving of agricultural products by recreation
002	11	Hatching by using incubator
003	01	Stone milling, crushing or grinding
003	02	Digging or dredging of gravel, sand or mud
003	03	Sifting or selecting of gravel or sand
003	04	Sucking of sand
003	05	Transporting of stone, gravel, sand or mud by conveyor belt system
004	01	Slaughtering
004	02	Preserving of animal meat(non-aquatic animals) by means of desiccation, smoking, salting, pickling, sun-drying
004	03	Finish Products from animal meats, oils, hides, fats
004	04	Purifying of oils or fats as food from animals
004	05	Packaging of finish products from animal meats in hermetic sealed containers
004	06	Washing, dissecting, picking-off, boiling, steaming, frying or grinding of animals (non-aquatic animals)
004	07	Making products from eggs for using in preparing foods, such as salted eggs, pulverized eggs
005	01	Making fresh milk free from bacteria by means of pasteurization or sterilization
005	02	Manufacture of fresh milk from milk-powder and fats
005	03	Manufacture of condensed milk, milk-powder or evaporated milk
005	04	Manufacture of cream from milk
005	05	Manufacture of butter or cheese
005	06	Manufacture of yogurt or yeast milk
006	01	Manufacture of food from aquatic animals packed in hermetic sealed containers
006	02	Preserving of aquatic animals by means of desiccation, smoking, salting, pickling, sun-drying
006	03	Manufacture of processed food products from aquatic animals, aquatic animal skins or aquatic animal fats
006	04	Extracting oils or fats as food from aquatic animals
006	05	Washing, dissecting, picking-off, boiling, steaming, frying or grinding of aquatic animals

Fact 1	Fac	Ftype
007	01	Extracting oils from plants or animals or fats from animals
007	02	Pressing or grinding of oils extracted residues of plants or animals
007	03	Freezing of oils from plants or animals or fats from animals by means of hydrogenation
007	04	Purifying of oils from plants or animals or fats from animals
007	05	Manufacture of margarine, non-dairy cream or mixed oil for preparing foods
008	01	Manufacture of foods, beverages from vegetable, plants, fruits, packed in hermetic sealed containers
008	02	Preserving of vegetables, plants or fruits by means of roasting, sun-drying, pickling, freezing
009	01	Rice milling
009	02	Manufacture of starch
009	03	Grinding or milling of seeds or rootstocks of plants
009	04	Manufacture of finish foods from seeds or rootstocks of plants
009	05	Mixing of starch or seeds
009	06	Peeling of rootstocks of plants or making rootstocks of plants in stripes, chips or rods
010	01	Manufacture of breads or cakes
010	02	Manufacture of biscuits or cookies
010	03	Manufacture of foods from starch in stripes pellets or chips
011	01	Manufacture of syrup
011	02	Manufacture of brown sugar
011	03	Manufacture of raw sugar or refined sugar
011	04	Purifying of raw sugar or white sugar
011	05	Manufacture of sugar cubes or instant sugar
011	06	Manufacture of glucose, dextrose, fructose or other similar products
011	07	Production of sugar from syrup of coconuts, palm nut or others, which are not sugar canes
012	01	Production of dried tea leaves or instant tea leaves
012	02	Roasting, grinding or milling of coffee or manufacture of instant coffee
012	03	Manufacture of instant cocoa or confectionery from cocoa
012	04	Manufacture of chocolate, instant chocolate or confectionery from chocolate
012	05	Manufacture of instant chrysanthemum, instant ginger or instant beverage from other plants
012	06	Manufacture of pelletized tamarinds, pelletized lemons or pelletized fruits
012	07	Candying of fruits, fruit skins, coating fruits, fruit skins with sugar
012	08	Baking, roasting of beans or seeds or coating with sugar, coffee, cocoa
012	09	Manufacture of chewing gum
012	10	Manufacture of bon-bon or toffee
012	11	Manufacture of ice cream
013	01	Manufacture of baking powder
013	02	Manufacture of foods or taste coloring, flavoring or seasoning
013	03	Manufacture of yeast
013	04	Manufacture of vinegar
013	05	Manufacture of mustard
013	06	Manufacture of salad oils
013	07	Grinding and milling of spices
013	08	Manufacture of chili powder, pepper powder or curry

Fact 1	Fac	Ftype
014	00	Manufacture of ice or cutting, mining, grinding or milling of ice
015	01	Manufacture of mixed foods or processed foods for breeding of animals
015	02	Grinding or milling of plants, seeds, plants-residues, animal meat for mixing feeds
016	00	Distilling and spirits blending factories
017	00	Manufacturing factories for ethyl alcohol, which is not produced from sulfide residues
018	00	Factory for manufacturing or blending of alcohol from fruits or wine
019	01	Production, grinding or milling of malt
019	02	Beer breweries
020	01	Manufacture of drinking water
020	02	Manufacture of non-alcoholic beverages
020	03	Manufacture of carbonated water
020	04	Manufacture of mineral water
021	01	Baking of tobacco leaves or drawing of tobacco stem
021	02	Manufacture of cigarette, cigar or other tobacco
021	03	Manufacture of pigtail, pipe tobacco, prepared pipe tobacco or chewing tobacco
021	04	Manufacture of snuff
022	01	Fermentation of carbonize, combing, pressing, spinning of textures
022	02	Weaving or preparing of yarn for weaving
022	03	Dyeing or finishing of yarn or textile
022	04	Printing of textile
023	01	Manufacture household textile
023	02	Manufacture of non-plastic bags or non-plastic sacks
023	03	Manufacture of canvas goods
023	04	Decoration or embroidering of textile
024	00	Manufactory of knitting wears, laces, dyeing of knitted clothing
025	00	Manufactory of non-rubber or non-plastic carpets or mats by means of weaving, knitting
025	01	Manufacture of ropes
025	02	Manufacture, assembling, repairing of nets, fishing nets including components
027	01	Manufacture of lino, rugs, which are not made from cork, rubber or plastic
027	02	Manufacture of oilcloths or leatherette, which are not made from the whole plastic
027	03	Manufacture of fiber sheets, which are not bathed, or coated with non-rubber materials
027	04	Manufacture of wool
027	05	Manufacture of laces or artificial laces
027	06	Manufacture of fiber materials for making pads, upholsters or similarities
027	07	Manufacture of fiber, fiber tuft from waste fiber or waste fiber tuft
027	08	Manufacture of fabric or canvas for vehicle tires

Fact 1	Fac	Ftype
028	01	Tailoring clothing from hide, fur or other materials
028	02	Manufacture of hats
029	00	Manufactory for hide fermenting, dissecting, baking, tanning, polishing, dressing and color coating
030	00	Manufactory for fur combing, tanning, dyeing, polishing or dressing
031	00	Manufactory for making of carpets or things from hide or fur
032	01	Products from hide, fur, leatherette, which are not clothing, footwear
032	02	Glass fiber
033	00	manufacture of footwear, which are not made from wood, hard baked rubber, form pressed plastic
034	01	Sawing, planing, cutting, grooving or processing of wood by other similar means
034	02	Manufacture of door, window frames and panels, which are made of wood for buildings
034	03	Manufacture of veneers or all kind of plywood
034	04	Wood shredding or grinding
034	05	Preservation or desiccation of wood
034	06	Burning of charcoal from wood
035	00	Production of containers and things from bamboo, rattan, straw, reed, papyrus
036	01	Production of wooden containers, including components
036	02	Production of footwear, footwear component or footwear model from wood
036	03	Wood carving
036	04	Manufacture of picture frame, or glass frame from wood
036	05	Manufacture of cork products
037	00	Manufacture of furniture, inner decoration from wood, glass, rubber, and other non-metal
038	01	Manufacture of pulp from wood or other materials
038	02	Manufacture of paper, pressboard or construction paper from fiber
039	00	Factory for manufacturing containers from all kinds of paper or fiberboard
040	01	Coating, polishing, gluing of paper or pressing of multi-layer paper
040	02	Manufacture of non-container products from pulp or cardboard
041	01	Printing, files manufacturing, binding, print furnishing
041	02	Manufacture of metal mould and die
042	01	Manufacture of chemical products, or chemicals
042	02	Storing, transporting, separating, selecting, packing of dangerous chemical products
043	01	Manufacture of fertilizers or pesticides
043	02	Storing or packing of fertilizers or pesticides
044	00	Manufacture of synthetic resin, elastomeric rubber, plastic, synthetic fiber
045	01	Manufacture of paint, painting spray, or coating paint

Fact 1	Fac	Ftype
045	02	Manufacture of varnish, thinner
045	03	Manufacture of shellac, lacquers, or sealing products
046	01	Manufacture of substances certified in the recipes announced by the health minister
046	02	Manufacture of substances for healing, relief, treatment, protection against diseases of human and animals
046	03	Manufacture of substances beneficially to the health, anatomy of human or animals
047	01	Manufacture of soap, synthetic detergent, shampoo, cleaning products
047	02	Manufacture of raw glycerin, pure glycerin from vegetable oil, animals, animal fats
047	03	Manufacture of cosmetics or toilet preparations
047	04	Manufacture of tooth pastes
048	01	Manufacture of furniture or metal polishing products, wax or building decorating materials
048	02	Manufacture of Lysol or deodorant
048	03	Waterproof products made from plants, plastic, used as mixer, joiner, sealer
048	04	Manufacture of matches, explosive or fireworks
048	05	Manufacture of tallow candles
048	06	Manufacture of ink or carbon black
048	07	Manufacture of incense products
048	08	Manufacture of camphorated products
048	09	Manufacture of essential oils
048	10	Manufacture of indigo or bleach for clothes washing
048	11	Manufacture of boiler insulating products or heat insulator
048	12	Manufacture of products for use with metal, oil, water
048	13	Manufacture of activated carbon
049	00	Petroleum refineries
050	01	Manufacture of asphalt or tar
050	02	Manufacture of papers coated with asphalt or tar
050	03	Manufacture of fuel from lignite or coals
050	04	Mixing of petroleum products or mixing with other substances
050	05	Refining coals in coke burner, which is not the part of manufacture of gases, iron
051	00	Factories for manufacturing, repairing, retreading of vehicle tires and tubes
052	01	Production of primary rubber sheets from latex
052	02	Cutting, mixing, pressing of natural rubber sheets
052	03	Production of smoked rubber sheets, crepe rubber, block rubber, latex
052	04	Manufacture of tires, as mentioned in pos 51, from natural rubber
053	01	Manufacture of plastic household products, plastic furniture, plastic adornments
053	02	Manufacture of plastic mats or plastic carpets
053	03	Manufacture of hot dog plastic covers
053	04	Manufacture of containers, such as plastic bags or plastic sacks
053	05	Manufacture of plastic granulates, rods, tubes, pipes, sheets, pieces, powder
053	06	Manufacture of insulation products from plastic
053	07	Manufacture of footwear and components from plastic
053	08	Pressing of plastic in multi-layer sheets

Fact 1	Fac	Ftype
053	09	Washing or grinding of plastics
054	00	Factory for manufacturing glass, glass fiber or glass products
055	00	Manufacture of glazed tiles, potteries
056	00	Manufacture of tiles or ducts for construction work, decorating tiles
057	01	Manufacture of cement, lime or plaster
057	02	Transportation of cement, lime or plaster by conveyor belt system
057	03	Mixing of cement, lime, plaster together or with other materials
058	01	Manufacture of concrete products, ready mixed concrete, gypsum, plaster
058	02	Manufacture of asbestos
058	03	Manufacture of stone products
058	04	Manufacture of abrasive products
058	05	Manufacture of asbestos products
058	06	Manufacture of graphite products
059	00	Smelting, casting, extruding, drawing of irons, manufacture of primary iron or steel
060	00	Smelting, mixing, purifying, casting, extruding, drawing of metal and manufacture of primary metal
061	00	Manufacture, repairing of hand tools and hardware made of iron and steel
062	00	Manufacture, repairing of furniture, inner decorating fixtures made from metal
063	01	Fabrication of components for use in bridges, water gates, water tanks construction
063	02	Fabrication of components for construction of buildings
063	03	Fabrication of components for use in ships building
063	04	Fabrication of components for use in building or repairing of boilers
063	05	Fabrication of components for use with air-condition system
064	01	Fabrication of metal container
064	02	Manufacture of products by means of punching or impacting with metal
064	03	Manufacture of products with metal press screw
064	04	Manufacture of safes and safety cabinets from metal
064	05	Manufacture of products from steel wires, non-insulated cables from other production sources
064	06	Fabrication of steel spring coils, flanges, washers, rivets, which are not manufactured in the primary extrusion factory
064	07	Manufacture of ovens or other room heating apparatus, which are non-electric
064	08	Manufacture of steel sanitary products, brazed metal fittings
064	09	Fabrication of small appliances made from metal
064	10	Fabrication of finished metal products by means of coating, black lacquered, plating, polishing
064	11	Waste metal pressing
064	12	Metal cutting, rolling
064	13	General work of turning, drilling, boring, milling, planing, grinding or welding
064	14	Fabrication of parts or accessories of metal products under (1) to (10)

Fact 1	Fac	Ftype
065	00	Manufacturing, assembling, repairing, of engines including components and accessories
066	00	Manufacturing, assembling, repairing of agricultural /farming machinery
067	01	Making, repairing of machinery for saw mills, planing mills, veneer panel making
067	02	Making, modifying, repairing of Lathes, boring, drilling, milling, grinding, cutting, planing machines
067	03	Making, modifying, repairing of engine powered sawing machines
067	04	Making, modifying, repairing of metal plating machines
067	05	Making, modifying, repairing of metal extruder, presses, drawers
067	06	Making, modifying, repairing of smelting machines, non-electric welding machines
067	07	Making, modifying, repairing of jigs for use with machine tools
067	08	Making component parts, accessories for machinery under (1) to (7)
068	00	Manufacturing, modifying, repairing of paper industrial machinery, petroleum drilling machinery....
069	00	Manufacturing, assembling, modifying, repairing of office machinery
070	00	Manufacturing, assembling, repairing of water pumps, air compressors, air blowers
071	00	Manufacturing, assembling of machinery mentioned in pos. 70 particularly electrical use
072	00	Manufacturing, assembling, repairing of radios, televisions, tape, records, etc.
073	00	Manufacturing, assembling electrical tools and appliances not mentioned in any position
074	01	Manufacture of electric bulbs or lamps
074	02	Manufacture of insulated wires and cables
074	03	Manufacturing of fittings, electrical plugs, connectors
074	04	Manufacturing of insulation or insulated materials, which are not glazed tiles or glass
074	05	Manufacture of electric transformers, electric generators dry and wet types
075	01	Building, repairing, painting of ships in the dock, except rubber boats
075	02	Making of special parts for ships or ship engines
075	03	Modifying or demolishing of ships
076	01	Building, modifying, repairing of vehicles used in railroad, electric trains, electric baskets
076	02	Making of special parts, equipment for vehicles used in railroad, electric trains
077	01	Building, assembling, modifying, change condition of cars or trailers
077	02	Making of special parts or equipment for cars or trailers
078	01	Building, assembling, modifying of motor cycles, tri-cycles, bi-cycles
078	02	Making of special parts, equipment for motor cycles, tri-cycles, bi-cycles
079	01	Building, assembling, modifying, repairing, change conditions of aircraft

Fact 1	Fac	Ftype
079	02	Manufacturing of special parts or equipment for aircraft, hover-craft
080	00	Manufacture, assembling, modifying, repairing of rollers driven by human force
081	01	Making, modifying, repairing of tools, scientific instruments used in laboratories
081	02	Making, assembling, modifying, repairing of cyclotrons
081	03	Manufacturing of medical instruments or equipment
082	00	Manufacturing of optical instruments, lens
083	00	Factory for manufacturing, assembling of watches, time measuring instruments, watch components and spare parts
084	01	Manufacturing of jewelry, pearl, gold, platinum, silver, copper alloy
084	02	Making of appliances with gold, platinum, silver, copper alloy, gold-plated necklace, valuable metal
084	03	Cutting, grinding, polishing of jewelry or precious stones
084	04	Burning or desiccating jewelry or precious stones
084	05	Making of stamps, medals, decorations or other coins
085	00	Manufacturing, assembling of music instruments including components or equipment
086	00	Manufacturing, assembling of sport and exercise equipment
087	01	Manufacturing of toys not specified in other position
087	02	Manufacturing of stationeries or drawing equipment
087	03	Manufacturing of jewelry, ornaments for performance
087	04	Manufacture of umbrellas, staff, feathers, artificial flowers, zippers, buttons, brooms, brushes, lamps, etc.
087	05	Making of posters, stamps, marks, tags, advertising devices, medals
087	06	Manufacturing of hair nets, wigs
087	07	Making products from waste materials not specified in any position
088	00	Electric power generating plants, distributing or selling
089	00	Non-natural gas generating plant, distributing or selling
090	00	Water supply plants, water purifying plants, supplying water to buildings or factories
091	01	Packing of general merchandise
091	02	Gas filling
092	00	Cold storage
093	00	Footwear or leather goods repairing works
094	00	Electric tools, electric appliances repairing works
095	01	Repairing of engine driven vehicles or vehicle components
095	02	Repairing of trailers, tri-cycles, bi-cycles or components
095	03	Cars rust protection spraying
095	04	Car washing or steaming
096	00	Factories for repairing of watches, time measuring instruments, jewelry, gold, precious stones
97	00	Factories for repairing products not mentioned in any position

Fact 1	Fac	Ftype
98	00	Factories for cleaning, dry-cleaning, washing, ironing, pressing, dyeing of clothes and carpets
99	00	Factories for manufacturing, repairing, modifying of guns, ammunitions, explosives
100	01	Painting, spraying and coating
100	02	Painting, spraying, vanishing, lacquering, other waxing and polishing oils
100	03	Black lacquering, decorating with glass, mosaics, pearl, gold, precious stones
100	04	Polishing
100	05	Plating, anodizing
100	06	Heat treatment
101	00	Central Heat Treatment Plants
102	00	Manufacturing or generating and/or selling of steams
103	01	Production of potash
103	02	Salt water pumping
103	03	Salt grinding
103	04	Salt purifying
104	00	Manufacturing, assembling, modifying, repairing of boiler

Unofficial English translation by Vibool Chandrangsul
 Thai-German Investment Promotion Service
 C/O The Office of Industrial Economics
 Ministry of Industry
 Tel: 202-4320 / 1
 May 13, 1995

**Memorandum of
Rules and Regulation
with Result
in components to the draft
of the Ministerial Regulation, Article 9 (year 1995)
issuance in accordance to
the Industrial and Factory Act, year 1992**

Rules & Regulations

To set up the necessary data in concerning to the factory establishment and the establish's owner(s) needed to report to the ministry within the limited time strength as well as to stipulate the kind of products that the factory desire to produce with its completion type and data.

Result

The reason of this necessity of the Ministerial Report of Data needed is to meet and cover the regulations under controlling of the condition within the ministry's permission.

Thus, due the clause 8(7) of the Industrial and Factory Act year 1992 stipulated on the significant full authority of the Minister of the relevant Ministry to permit issuance of the Ministry's law for publics and all kinds of the industries of such concerns in the Government Gazette Clause 7, thereafter it is necessary for the Ministry in compliance issuing of this Memorandum.

*** Announcement of the Government Gazette, Article in the Royal Decree copy, book 112, section 22 Kor dated 26 June 1995.

Correct copy certified

(Miss Duangjai Rattana-
raj)
Administrative Officer, level 5

COPY

Ministerial Regulations Article 9 (year 1995) issuance in accordance to the Industrial Act year 1992

In reference within the authority of the Ministry Regulation Clause 6 and 8(7) of the Industrial and Factory Act year 1992, the Minister of the Industry Ministry hereby issue the Ministry's law as follows:-

Clause 1. The industry's owner of the industry type 2 and 3 in accordance to the clause 7 of the Industrial Act year 1992 must inform the necessary information of the industry production and its business concerned as the attachment of the Industrial Form 5 to the Economics Industrial office, Ministry of Industry every year within the periodically term and time strength stated below:

The First - Quarter: during January - March to be submitted or reported within the date of 15 April

The Second - Quarter: during April - June to be submitted or reported within the date of 15 July

The Third - Quarter: during July - September to be submitted or reported within the date of 15 October

The Fourth - Quarter: during October - December to be submitted or reported within the 15th of January of the following year

Clause 2. To report or inform according to the above clause 1, the industry needed to follow by proposing the Industrial Form 5 at the Economics Industry Office, Ministry of Industry or to be mailed to the registration post and get the mail registered evidence.

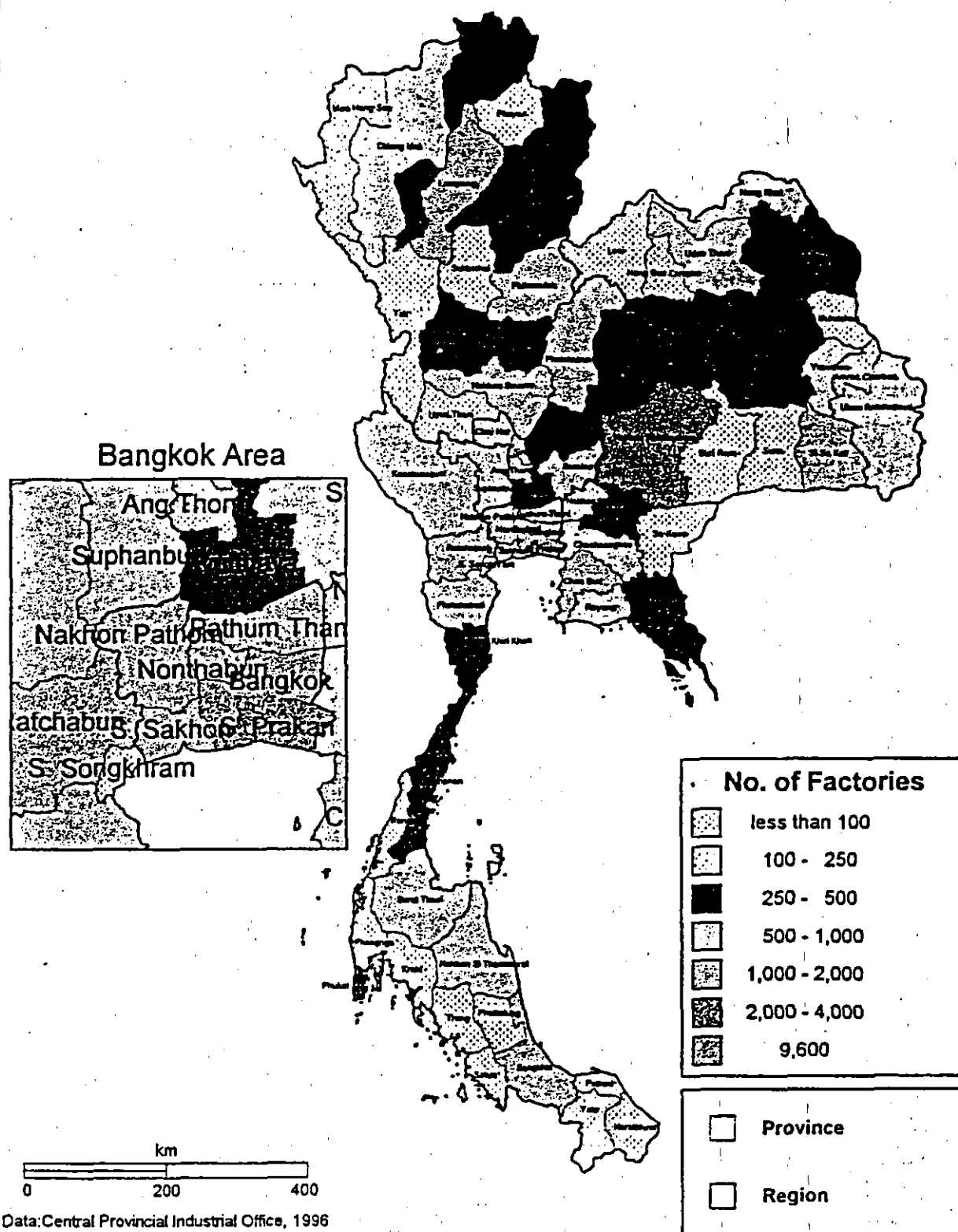
Hence, the owner must keep in mind the data the Post Office accepted and stamped the registered mail and sealed in the Form 5 is considered to be the due date effective to this regulation.

Clause 3. This Ministerial Regulation is to be compelled and effective after 90 days after the day the Government Gazette is applicable and make announcement to public.

This issuance is made hereon the 14th of June 1995

(Mr. Trirong Suwannakiri)
The Minister of Industrial Ministry

Number of Factories per Province 1994 (without rice mills)



Data: Central Provincial Industrial Office, 1996
Thailand Environment Institute, 1996
Map: V. Wessels, OIE, Min. of Industry, 1996

Project No: PROFACT, Annex for CO₂ COMP Data: none
Date: 18.03.1998

9. Questionnaire Form, National Statistics Office

Industry: *Coin Battery*
แบบสอบถามอุตสาหกรรมแบตเตอรี่ ปี 2541 (รายเดือน)

Name of Co. (Print)

บริษัท

Contact person

ชื่อผู้ติดต่อ

Tel.

โทร

เดือน	Unit Produced Qty	Capacity	Sale	Sh of Exp.	Unit Price	หมายเหตุ
	หน่วยผลิต * (เบตริกซ์)	กำลังการผลิตสูงสุด	ปริมาณการจำหน่าย	สัดส่วนการส่งออก (%)	ราคาผลิตภัณฑ์ต่อหน่วย ณ โรงงาน(บาท)	
มกราคม						
กุมภาพันธ์						
มีนาคม						
เมษายน						
พฤษภาคม						
มิถุนายน						
กรกฎาคม						
สิงหาคม						
กันยายน						
ตุลาคม						
พฤศจิกายน						
ธันวาคม						

* ถ้าไม่ตรงไปกระทรวงพาณิชย์

ติดต่อสอบถาม/ส่งแบบสอบถามคืน : คุณพัชรินทร์ รอดเจริญ / คุณอนุภา จารุวัฒนชัย

กลุ่มงานสถิติ 4 ฝ่ายวิชาการ ขบวนการแห่งประเทศไทย บางขุนพรหม กรุงเทพฯ 10200

โทร. 283-5644 283-5650 282-7116

FAX 282-5082

THE 1997 INDUSTIAL CENSUS

History

1964 : 1st census

1997 : 2nd census

**Between 1964-1997 :
Annual Survey on Industry**



OBJECTIVES

1. Obtain basic industrial information

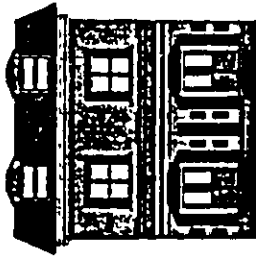
2. Provide data for making GDP, GPP and Input-Output tables

3. Obtain information for economics and industrial planning

4. Provide sampling frames for annual establishment survey

OPERATING PLAN

• BKK. Municipal/Sanitary Areas



1996

Listing

1997

Enumerating

• Non - MA/SD



1997

Listing

Enumerating



COVERAGE

1996 - LISTING:

All industrial and business trade establishments in BKK, MA and SD

1997 - LISTING: Industrial establishments in Non-MD/SD

**ENUMERATING: Manufacturing industrial
estab. with 10 persons engaged and over for
individual proprietors and all size estab. for
corporations**

ITEMS COLLECTED

Number, Size, Type of Industry

Workers' Remunerations

Cost of Production, Expense

Output, Receipt

Fixed Assets

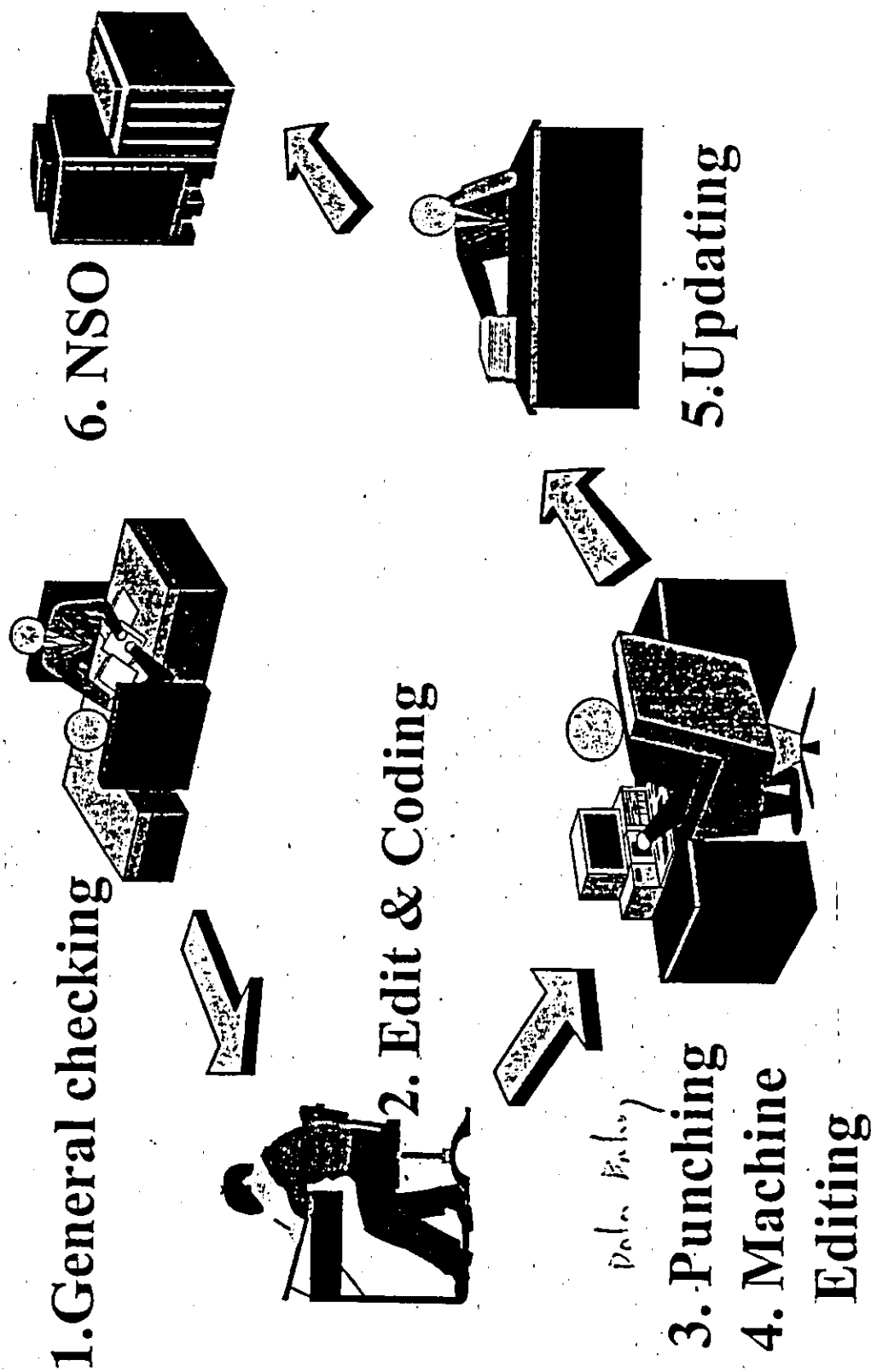


LISTING: Interviewing and observing

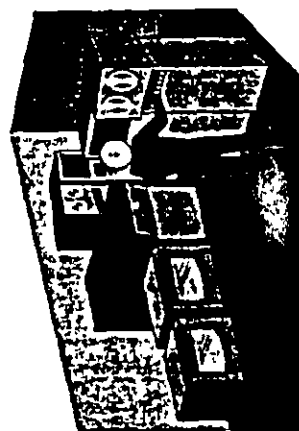
ENUMERATING :

- 1. Interviewing**
- 2. Making appointment**
- 3. Leaving questionnaire**

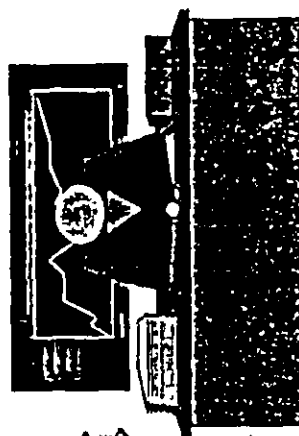
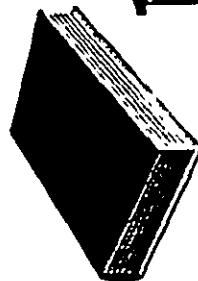
DATA PROCESSING



DATA PROCESSING (Cont.)



Machine re-edit
& updating



Tabulating

	24534	11	34523
1	123	456	
2	789	101	
3	135	126	



Analysing²
& reporting

PUBLICATIONS

Wythkolle Kinnereidom

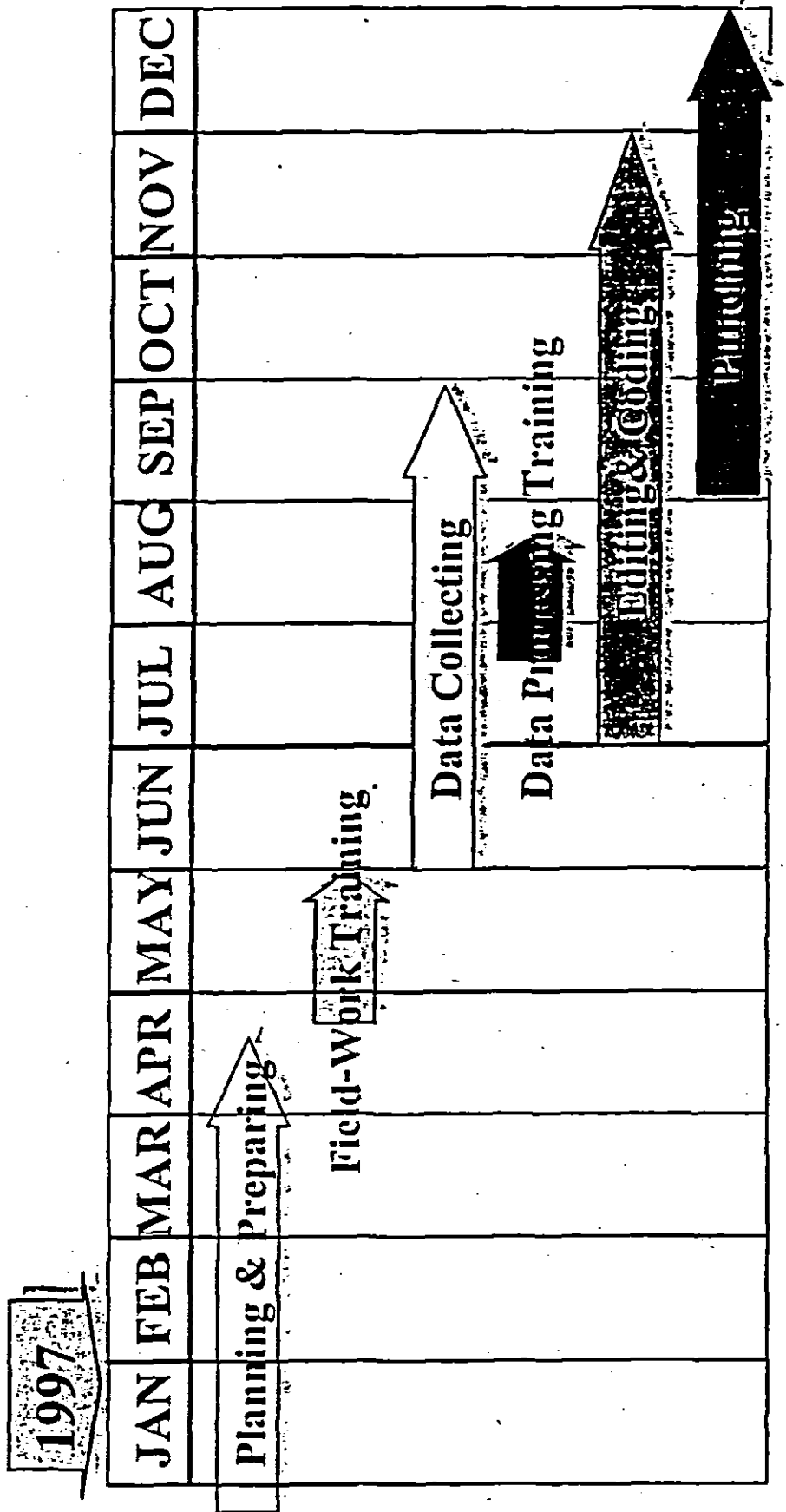
Bkk & Vicinity, 4 Regions

76 Provinces

CLASSIFICATION: ISIC rev. 3 UN:

TIME SCHEDULE

The 1997 Industrial Census

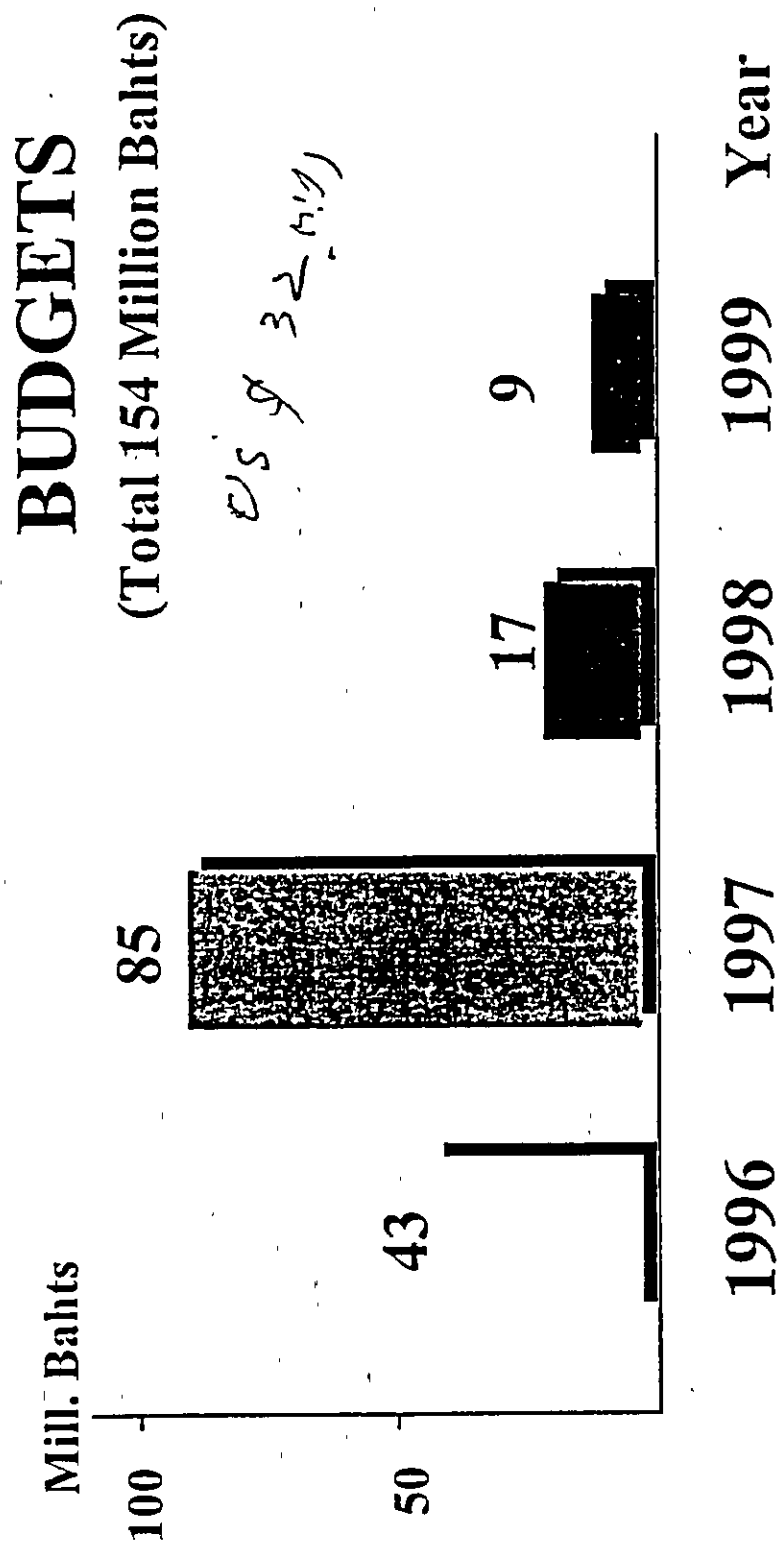


TIME SCHEDULEAL (Cont.)

The 1997 Industrial Census

[illegible]

THE 1997 INDUSTRIAL CENSUS



11. Questionnaire Form The 1997 Industrial Census, National
Statistics Office

Confidential



The 1997 Industrial Census

(The 1996 Listing of Industrial and Business Establishments)

Listing Form

A. Region..... 1 . REG.

B. Changwat..... 2-3 CWD.

C. Amphoe/District..... 4-5 AMP.

D. Tambon/Sub district..... 6-7 TAM.

E. Administration Area Municipal Area Name..... 1

 Sanitary District Name..... 2

 Non-Municipal Area/

 Outside Sanitary District 3 8 MUN.

F. Enumeration District No. 9-11 ED.

G. Block No. /Village No. 12-13 BLK.

 Name of Village

Name

Signature (.....)

Enumerator

Date.....

Name

Signature (.....)

Supervisor

Date.....

No. of HH/ Bld.	Address			Name of Establishment/Household head - If establishment dose not have a name, please fill in the owner's name - If there are more than 1 activities, please fill in each activity in sepearte lines - If it is household, please fill in the name of household's head - If the building/house is vacant, please fill in "Vacant" - If those buildings/places are not for economic activities or living, please fill in name or type of use of buildings/places	Number of Estab- lish- ment	Economic Acti vity						
	Street/Road	Soi/Block	House/ Building Number			A. Manufacturing B. Wholesale Trade Retail Trade Restaurants/Hotels Services C. Construction D. Other Economic Activities E. Ancillary Unit						
1	2	3	4	5	6	7						
A1 14 16	A2 17 36	A3 37 56	A4 57 66	A5 67 116	A6 117 119							
						1	2	3	4	5	6	7
						1	2	3	4	5	6	7
						1	2	3	4	5	6	7
						1	2	3	4	5	6	7
						1	2	3	4	5	6	7
						1	2	3	4	5	6	7
						1	2	3	4	5	6	7
						1	2	3	4	5	6	7
						1	2	3	4	5	6	7
						1	2	3	4	5	6	7
						1	2	3	4	5	6	7
Total of each page												
Total in this block/village												

B1 (14-16) B2 - B9 (17-40)

ity	Type of Industry/ Business Trade (Please specify type of industry/business trade in details)	Number of Activity	Form of Legal Organization	Number of Persons Engaged (Include owners/partners)	Ask only individual proprietor manufacturing establishment (Code 1 in col. 7 and col. 10)	Te
1			Individual Proprietor 1	1 - 4 persons 1		
2			Joint Partnership 2	5 - 9 persons 2		
3			Company Ltd. 3	10 - 19 persons 3		
4			Government, Semi-	20 - 49 persons 4	Type of	
5			government 4	50 - 99 persons 5	Operation	
6			Co-operatives 5	100 - 199 persons 6	Own account....1	
7			Others 6	200 - 499 persons 7	Subcontract.....2	
8				500 - 999 persons 8	Homeworker....3	
				≥ 1,000 persons 9		
	8	9	10	11	12	
A7	A8	A9	A10	A11	A12	
120	121	151	152	153	154	155
7 8		1 2	1 2 3 4 5 6	1 2 3 4 5 6 7 8 9	1 2 3	Tel. Fax.
7 8		1 2	1 2 3 4 5 6	1 2 3 4 5 6 7 8 9	1 2 3	Tel. Fax.
7 8		1 2	1 2 3 4 5 6	1 2 3 4 5 6 7 8 9	1 2 3	Tel. Fax.
7 8		1 2	1 2 3 4 5 6	1 2 3 4 5 6 7 8 9	1 2 3	Tel. Fax.
7 8		1 2	1 2 3 4 5 6	1 2 3 4 5 6 7 8 9	1 2 3	Tel. Fax.
7 8		1 2	1 2 3 4 5 6	1 2 3 4 5 6 7 8 9	1 2 3	Tel. Fax.
7 8		1 2	1 2 3 4 5 6	1 2 3 4 5 6 7 8 9	1 2 3	Tel. Fax.
7 8		1 2	1 2 3 4 5 6	1 2 3 4 5 6 7 8 9	1 2 3	Tel. Fax.
7 8		1 2	1 2 3 4 5 6	1 2 3 4 5 6 7 8 9	1 2 3	Tel. Fax.
7 8		1 2	1 2 3 4 5 6	1 2 3 4 5 6 7 8 9	1 2 3	Tel. Fax.

B10 - B11 (41-46)

B12 - B17 (47-64)

B18 - B26 (65-91)

B27 - B29 (92-100)

Only for Establishments circled 1-5 in column 7		Remarks	Division of Industry												
Telephone/Fax No.	Mailing Address or Contacted Place (if available)		- Food, beverage and tobacco 1 - Textile wearing apparel etc. 2 - Wood and wood products etc. 3 - Paper and paper products etc. 4 - Chemicals and chemical products etc. 5 - Non-metallic mineral products etc. 6 - Basic metal industries 7 - Fabricated metal products etc. 8 - Other manufacturing industries 9												
13		14	15		16										
A12	A13	A14	A15		A16										
154	155	164 165	171	172	221	222									
3	Tel.					1	2	3	4	5	6	7	8	9	
	Fax.														
3	Tel.					1	2	3	4	5	6	7	8	9	
	Fax.														
3	Tel.					1	2	3	4	5	6	7	8	9	
	Fax.														
3	Tel.					1	2	3	4	5	6	7	8	9	
	Fax.														
3	Tel.					1	2	3	4	5	6	7	8	9	
	Fax.														
3	Tel.					1	2	3	4	5	6	7	8	9	
	Fax.														
3	Tel.					1	2	3	4	5	6	7	8	9	
	Fax.														
3	Tel.					1	2	3	4	5	6	7	8	9	
	Fax.														

11. Questionnaire Form The 1997 Industrial Census, National
Statistics Office

Confidential



The 1997 Industrial Census

Entries in this questionnaire are for calendar year 1998

IC.2
Enumeration form

If accounting year differs from the calendar year, please specify.....

IDEN	CWT	AMP	TAM	MUN	ED	Blk/VII	NO.	IND	SIZE	ENU
Col.	1 - 2	3 - 4	5 - 6	7	8 - 10	11-12	13 - 15	16 - 19	20	21
CODE										
ENU	for office use only									

1. Name of establishment.....

2. Address of the factory

No. Village No. Street.....

Soi..... Tambon.....

District..... Province.....

Post code..... Telephone No. Fax No.

Area (encircle only one choice) 1 Municipal area 2 Sanitary district 3 Outside MA. and SD.

3. Address of the office

No. Village No. Street.....

Soi..... Tambon.....

District..... Province.....

Post code..... Telephone No. Fax No.

Area (encircle only one choice) 1 Municipal area 2 Sanitary district 3 Outside MA. and SD.

4. Kind of product produced

(Please specify kind of product in detail, for example, manufacture of agricultural machinery and equipment, manufacture of glass and glass products, manufacture of textiles, rice mills, manufacture of wood and wood products etc. Producing more than one kind of product, please specify kind of product produced accounting for the highest value of sale)

For further information, please contact

Part 1 General information of establishment

Q.1

Form of legal organization (encircle only one choice)

Rec. 1
Col. 22

A01
23

- Individual proprietor..... 1
- Juristic partnership..... 2
- Limited company..... 3
- Government, State-enterprise..... 4
- Non-profit institute..... 5
- Co-operatives..... 6
- Other (specify) 7

Q.2

Form of economic organization (encircle only one choice)

A02
24

- Single unit..... 1
(No branch or subsidiary unit or not a branch of other establishment)
- Member of network..... 2
(Not a head office or branch, but contact and exchange support in operation among establishment in the net work)
- Head office
(Own or control establishment (s) which is branch (es)..... 3
- Branch
(Branch or subsidiary unit of other head office 4

If circle 4, please fill in Q. 2.1



Q.2.1

Name and address of the head office

Name

Address.....

.....

Q.3

Period of operation

Fill in number of years since the establishment has operated, (round number to one year)

If the establishment has changed kind of product produced, please fill in the number of years produced the product specified in Item 4 in the cover page

A03
25-26

year

Q.4

Registered capital

Fill in the amount of registered capital in baht. If there was none, please

A04
27-38

1	2	3	4	5	6	7	8	9	0
---	---	---	---	---	---	---	---	---	---

Q. 5

Investment from abroad

A05
39

Was there any foreign investor in this establishment ?

(encircle only one choice)

No..... 1
 Yes..... 2

If 'yes' please answer Q.5.1 and Q.5.2 ↓

Q. 5.1

Foreign Shareholder (encircle only one choice)

A06
40

All 1
 Partially
 more than 50%..... 2
 50%..... 3
 less than 50 %..... 4

Q. 5.2

Country which hold the highest share (encircle only one choice)

A07
41

Korea..... 1	China..... 5
Japan..... 2	U.S.A..... 6
Taiwan..... 3	Europe 7
Singapore..... 4	Other (specify)..... 8

Q. 6

Acquired promotinal privileges from the Board of Investment

A08
42

In 1996, has this establishment acquired the promotional privileges from the Board of Investment (BOI) (encircle only one choice)

No..... 1
 Yes..... 2

Q. 7

Period of operation in 1996

7.1 Number of days in operation

A09
43-45

days

7.2 Number of hours operating per day (all shifts)

A10
46-47

hours

Q. 8

Export

A11
48

In 1996, did this establishment export the products produced by establishment?.

Export included the semi finished goods for further process (encircle only one choice)

No, 1
 Yes, 2

If 'yes' fill in Q. 8.1 ↓

Q. 8.1

Volume of export

A12
49

As percentage of total produced (encircle only one choice)

All 1
 Partially
 More than 50 %..... 2
 About 50 %..... 3
 Less than 50%..... 4

Q. 9**Uses of imported raw materials and components****A13**

In 1996, did this establishment use imported raw materials or components?
(encircle only one choice)

No, 1
Yes, 2

If 'yes' please fill in Q.9.1

Q. 9.1**Value of imported raw materials used****A14**
51

As percent of all raw materials used (encircle only one choice)

All 1
Partially
More than 50%..... 2
About 50%..... 3
Less than 50%..... 4

Q. 10**Increase in investment in order to expand or improve the business in the past 5 year (1992-1996)****A15**
52

In the past 5 years, did this establishment increase in investment to expand or improve the bussiness
as of the ways listed below (encircle only one choice)

No, 1
Yes, 2

If 'yes' please fill in Q.11.1

Q. 10.1**Ways or methods of expansion or improvement****A16**
53-56

which have been used (multiple response)

Expanded or constructed new plant..... 1
Bought new machinery or equipment..... 2
Employed more labour..... 3
Increased volume of production..... 4

Q. 11**Plan to increase in investment to expand or improve the business in the next 3 years (1997-1999)****A17**
57

In 1997-1999, will this establishment plan to increase in investment to expand or improve the bussiness
as of the ways listed below? (encircle only one choice)

No, 1
Yes, 2

If 'yes' please fill in Q.11.1

Q. 11.1**Ways or methods which is planned to use****A18**
58-61

(multiple response)

Expanded or constructed new plant..... 1
Bought new machinery or equipment..... 2
Employed more labour..... 3
Increased volume of production..... 4

Part 2 . Workers and remuneration

Q. 12

Employment in 1996 (encircle only one choice)

A19
62

Employed constant number of employees throughout the year..... 1

Number of employees depend upon season..... 2

If circle 2, please fill in Q.12.1 ↓

Q. 12.1

Number of operatives employed in 1996

Maximum number

A20				
63 - 66				

Minimum number

A21				
67 - 70				

Q. 13

Number of workers in 1996

Please fill in the average number of workers in 1996. For employees, include both permanent and temporary ones.

13.1 Owners/Partners who work without pay

13.2 Unpaid workers

13.3 Operatives

13.4 Other employees

Total

	Male		Female
A22		A27	
71 - 74		91 - 94	
A23		A28	
75 - 78		95 - 98	
A24		A29	
79 - 82		99 - 102	
A25		A30	
83 - 86		103 - 106	
A26		A31	
87 - 90		107 - 110	



Workers

refer to persons who work in or for the establishment, including working proprietors, active business partners, unpaid family and other unpaid workers and workers permanently work outside the establishment such as sale representatives (workers exclude managers or directors paid solely for their attendance at meeting of the board of director, persons from other establishment working at this establishment and homeworkers)

Owners/partners

refer to persons who managed or participated in the management of the establishment but received no wages or salaries.

Unpaid workers

refer to members of households of owners who worked for at least 20 hours a week and received no wages or salaries.

Operatives

refer to persons who were directly engaged in the production process or other related activities and received regular pay in terms of wages or salaries.

Other employees

refer to all employees other than operatives as defined earlier, including administrative, technical and clerical workers such as salaried managers and directors, laboratory and research workers, clerk, typist, book-keepers, administrative supervisors, salesman and the like.

Q. 14

Number of homeworkers in 1996

Please fill in the number of homeworkers. These homeworkers must be listed in the pay roll list of this establishment.

A32

111-114

Q. 15

Hours worked by operatives in 1996

15.1 Number of working day per week

A33

115

days

15.2 Average number of working hours per day (including every shift)

A34

116-117

hours

Q. 16

Remuneration in 1996

Rec. 2

22

Please fill in wage/salary and other compensation paid to all employees (from all sections throughout 1996)

16.1 Wage/salary

16.2 Overtime, Bonus, Special payment,
Cost of living allowance, Commission

16.3 Fringe benefits

Total

Operative

Other employees

B01 21-32										B05 61-72									
B02 33-42										B06 73-82									
B03 43-52										B07 83-92									
B04 53-62										B08 93-102									

16.4 Payment paid to homeworkers

B09

103-111

16.5 Payment paid to the board of director and shareholders
for their attention to the committees meetings

B10

112-120

16.6 Payment paid by the establishment to the social security insurance

B11

121-129

☉ Wage/salary

refer to all payments made by the employer to persons in the count of employees during January 1 to December 31, 1996 whether they were paid by monthly, weekly, daily, hourly or piece-work payment

☉ Fringe benefits

refer to payments in addition to wage or salary paid to employees including payments in cash or in kind measured in money term.

☉ Payment paid to
the social security
insurance

refer to payments paid by the establishment to the social security insurance either organized by public or private organizations.

Part 3 Cost of production and expenditure of establishment

Q.17

Cost of production and cost of sales in 1996

Rec. S
22

17.1 Cost of raw materials and component purchased

This refers to the total value of raw materials, parts and components purchased by establishment or transferred from head office or branch.

It also includes cost of transportation, custom duties and other related expense.

[illegible]

17.2 Cost of production

Please fill in the total expenditure on production in the right-hand-side block and tick ✓ in ☐ in front of related types of expenditure which were included.

- ☐ Cost of fuel and electricity used in production
- ☐ Cost of repair and maintenance of goods sold to customers
- ☐ Cost of repair and maintenance of machinery and equipment
- ☐ Other expenditure on production (specify).....

(Exclude depreciation)

[illegible]

17.3 Cost of goods purchased for resale

C03							
45-55							

17.4 Cost of contract and commission work done by others

[illegible]

Q. 18

Inventory

Rec. 4
22

	At the beginning of 1996					At the end of 1996				
18.1 Raw materials and components	D01 23 - 31					D05 62 - 77				
18.2 Semi-finished goods	D02 34 - 44					D06 78 - 88				
18.3 Finished goods	D03 45 - 55					D07 89 - 99				
18.4 Goods purchased for resale	D04 56 - 66					D08 100-110				

Q. 19

Cost of sales

Rec. 5
22

Please fill in the total cost of sale in the right-hand-side block
and tick ✓ in ☐ in front of related types of expenditure which were included.
(For depreciation please fill in Q.20)

- | | |
|--|--|
| <input type="checkbox"/> Advertising | <input type="checkbox"/> Transportation |
| <input type="checkbox"/> Commission | <input type="checkbox"/> Insurance premium |
| <input type="checkbox"/> Other expenses (specify)..... | |

E01
23-32

Q. 20

Administrative expense in 1996

20.1 Total administrative expense

Please fill in the total administrative expense in the right-hand-side block and tick
✓ in ☐ in front of related types of expenditures which were included.
For rent on land and building, depreciation of all fixed assets, interest paid and bad debt,
please also specify individual amounts separately.

- | | |
|--|--|
| <input type="checkbox"/> Electricity water supply | <input type="checkbox"/> Postage, Telegram, Telephone, Fax, Internet service |
| <input type="checkbox"/> Accountancy and consulting service | <input type="checkbox"/> Stationery |
| <input type="checkbox"/> Entertainment cost | <input type="checkbox"/> Research, Training cost |
| <input type="checkbox"/> Sewage, security and gardening charge | <input type="checkbox"/> Rent on vehicle and equipment |
| <input type="checkbox"/> Fuel used for transportation | |

☐ Rent on land and building☐ Depreciation of all kinds of fixed assets☐ Interest paid☐ Bad debt☐ Other administrative expense (specify).....E02
33-42E03
43-52E04
53-62E05
63-72E06
73-82

Q. 21

Tax

21.1 Value added (net)

(Sale tax deduct by purchase tax, if the total is negative, put '-' in front of the amount)

21.2 Other tax (exclude income tax corporate income tax)

Please fill in the total amount of other taxes in the right hand side block and tick ✓ in ☐
in front of related types of tax which were included in the total amount.

- | |
|--|
| <input type="checkbox"/> Excise tax |
| <input type="checkbox"/> Building and land tax, Signboard tax and other fees |
| <input type="checkbox"/> Other taxes (specify)..... |

E07
83-92E08
93-102

Part 4 Value of production and receipts of establishment

Q. 22

Value of sales in 1996

**Rec. 6
22**

Please specify kinds of products in sequential order measured by value of sale and fill in the total value of sale of all products in the right-hand-side block. Value of sales of products refers to

1. Value of sales of goods produced
2. Value of sales of goods produced under contract and commission work done by others
3. Value of goods for own use or provide to employees as of fringe benefits
4. Value of goods sent to head office, branches or sale offices
(in case establishment and office has its own account)
5. Receipts from sale of scrap and refusals

Value of sales is excluded value added tax and discount. For sales of goods for resale, please fill in Q.23.1

Kinds of product

Value of sale

- 1
- 2
- 3
- 4
- 5

F01 23-34	
---------------------	--

Q. 23

Receipts of establishment in 1996

23.1 Receipts from sale of goods purchased for resale

F02 35-44	
---------------------	--

**23.2 Receipts from contract and commission work,
research, installation and maintenance rendered to others**

F03 45-54	
---------------------	--

23.3 Revenue from rental or lease of industrial equipment or building

F04 55-64	
---------------------	--

23.4 Dividend receivable

F05 65-74	
---------------------	--

23.5 Interest income receivable

F06 75-84	
---------------------	--

23.6 Other receipts

F07 85-94	
---------------------	--

23.7 Government subsidies

F08 95-104	
----------------------	--

Total

F09 105-114	
-----------------------	--

Part 5 Fixed assets

Q. 24

Book value of fixed assets in 1996

	Rec.7 22	At the beginning of 1996	Rec.8 22	At the end of 1996
24.1 Land and land improvement	G01 23-34		H01 23-34	
24.2 Building and construction	G02 35-46		H02 35-46	
24.3 Machinery and equipment	G03 47-58		H03 47-58	
24.4 Office appliances	G04 59-70		H04 59-70	
24.5 Vehicles	G05 71-82		H05 71-82	
24.6 Other fixed assets	G06 83-94		H06 83-94	
Total	G07 95-106		H07 95-106	

Q. 25

Change in value of fixed assets during 1996

25.1 Value of fixed assets purchased or produced for own account

Including major additions, alterations and improvement that extend their normal economic life or raise their productivity

H08
107-117

25.2 Value of sale of fixed assets during the year

H09
118-128

Q. 26

Was there any significant problems in operating the business? (encircle only one choice)

H10

129

No..... 1

Yes..... 2

if circle ② fill in Q. 26.1 ↓

Q.26.1

Types of problems of operating activities in 1996

H11
130-139

(multiple response)

Labour shortage..... 1	Market decrease..... 4
Raw material shortage..... 2	Uncertainty of the government's policies..... 5
Insufficient capital 3	Other (specify)..... 6

Q. 27

Demand for support from the government (encircle only one choice)

H12

133

None 1

Yes..... 2

if circle ② fill in Q. 27.1 ↓

Q.27.1

Types of support needed

H13
134-136

(multiple response)

Skilled-labour development..... 1	Low interest sources..... 4
Natural resources development..... 2	Increase market share, export promotion..... 5
Decrease imported tax..... 3	Other (specify)..... 6

[illegible]**Position.....**

Telephone **Facsimile**

Signature..... Signature.....

(.....)

Provincial statistician/chief of field operation section

12. Thailand Statistics Law (英訳)

Translation THAILAND STATISTICS LAW, B.E. 2508 (1965)

.....

BHUMIBOL ADULYADEJ, REX

Given on the 30th day of August, B.E. 2508;

Being the 20th Year of the Present Reign.

His Majesty King Bhumibol Adulyadej has been graciously pleased to proclaim that

Whereas it is expedient to revise the law on statistics:

Be it, therefore, enacted by the King, by and with the advice and consent of the Constituent Assembly, as follows :

Section 1. This Act shall be called the " Statistics Act, B.E. 2508."

Section 2. This Act shall come into force as from the day following the date of its publication in the Government Gazette.

Section 3. The Statistics Act B.E. 2495 shall be repealed.

all other laws, regulations and rules insofar as they deal with matters government by this Act, or are contrary to , or inconsistent inconsistent with the provisions of this Act shall be repealed and repealed by this Act.

Section 4. In this Act:

"Statistics" means data indicating total number collected from censuses, surveys, records, registration, reports or other documents;

"Census" means the collection of data on population, housing, agriculture, industry, business, and other activities, for statistical purposes, by means of enumerating every unit in connection with such subjects;

"Survey" means the collection of data on population, housing, agriculture, industry, business, and other activities, for statistical purposes, by means of enumerating Sample units in connection with such subjects;

"Statistical agency" means any Ministry, Dabuang, Department or Public Body having equivalent status to a Department, office, or other Government Agency, State Enterprise, and Local Administration which performs work of a statistical nature;

"State enterprise" means any government organization or business agency Owned by the Government, any company or juristic partnership in which the Government has a share of over fifty percent of the investment,

"Record" means all statements or facts, either in writing or otherwise, which are used in various work activities;

"Dwelling place" Means any place which is used for habitation, such as lodge, house, boat or floating house, including, the compound thereof, whether fenced in or not;

"Office" means any place which is used for business, such as lodge, house, boat or floating house, including the compound thereof, whether fenced in or not;

"Officer" means any person appointed as such by the Secretary- General of the National Statistical office to perform any function under this Act;

"Competent officer" means any official appointed as such by the Prime Minister to perform any function under this Act.

Section 5: The National Statistical office is authorized to perform the following statistical activities;

- (1) compile statistics from all statistical agencies;
- (2) plan and conduct all censuses;
- (3) promote and develop government as well as private statistical activities;
- (4) plan, co-ordinate and direct technical aspects of all government statistical projects and activities;

(5) collaborate with, and participate in the co-ordination of the work of all statistical agencies in the assembling, compilation and analysis of statistics;

(6) make recommendations to, or advise other statistical agencies on plans, methodology, forms, questionnaires, and other documents, such as handbooks, and instructions which are to be used for statistical purposes;

(7) conduct or direct sample surveys, or collect, abstract, compile and analyse statistics relating to the basic conditions of the country obtained from censuses and surveys;

(8) supervise statistical agencies in the technical aspects of planning sample surveys, or in collecting and analysing statistics;

(9) conduct or direct research on statistical techniques;

(10) issue periodicals and publish statistical data;

(11) maintain a library of books and technical documents pertaining to statistics, and exchange the said books and documents;

(12) direct and promote the study of and training in statistics;

(13) collaborate with, and participate in the co-ordination of the work of foreign states or international organizations

Section 6. The Secretary - General of the National Statistical Office shall have the power to appoint officers to perform any function under this Act.

Section 7. There shall be a National Statistical Commission, consisting of Chairman, Vice-Chairman and not more than ten other members, appointed by the Cabinet, as well as representatives from every Ministry as members ex-officio. The Secretary-General of the National Statistical Office shall serve as member and Secretary.

Section 8. The National Statistical Commission shall serve as an advisory body to the National Statistical Office.

Section 9. The Members of the National Statistical Commission as appointed by the Cabinet shall serve for a term of three years.

In the event that an appointment to the Statistical Commission must be made during a term of office, whether to appoint additional members or for replacement, the newly appointed member (s) shall serve for the remaining period of the present term.

Any member of the National Statistical Commission who has completed his term may be re-appointed.

Section 10. Aside from the termination of office according to the provisions under Section 9, the membership of the National Statistical Commission shall terminate upon:

- (1) death;
- (2) resignation;
- (3) bankruptcy;
- (4) incompetence or quasi-incompetence;
- (5) imprisonment by a final court decision, except for petty offences committed through negligence.

Section 11. At the meetings of the National Statistical Commission, not less than one half of all the members must be present so as to constitute a quorum.

If the Chairman is absent from the meeting, the Vice-Chairman shall act as Chairman. If both the Chairman and Vice-Chairman are absent from the meeting, the members shall elect a member to act as chairman.

Section 12. The decision of the meetings shall be by a majority vote.

Each member shall have one vote. In case of a tie, the Chairman shall cast an additional vote as the decisive vote.

Section 13. If, to perform its functions as charged, the National Statistical Commission deems it appropriate to appoint a Subcommittee to perform any activity as assigned, or to call upon any person for information, explanation, advice or opinion, it may do so.

The provisions of Section 11 and Section 12 shall apply to meetings of the Subcommittee, *mutatis mutandis*.

Section 14. Any statistical agency wishing to submit budget requests for the undertaking of statistical activities, shall send its project proposal, stating details of the plan and methodology, together with the estimated expenditure in the form designated by the National Statistical Office, to the National Statistical Office for prior consideration and approval.

Section 15. Whenever a census or survey is to be conducted under any statistical project, it shall be prescribed in a Royal Decree.

In the Royal Decree, there shall be, at least, prescribed, the following:

- (1) duration of Royal Decree;
- (2) objectives of the census or survey;
- (3) areas designated for the census or survey;
- (4) persons who shall complete the forms or questionnaires;
- (5) statistical agencies responsible for the undertaking of the census or survey.

Section 16. Upon prescription of a Royal Decree under Section 15, the Secretary-General shall issue a proclamation stating:

- (1) the forms and questionnaires, and procedures for completing such documents;
- (2) the period during which the competent officer or officer shall send the forms or questionnaires to the person who is to complete them;
- (3) the period during which the information shall return the completed forms or questionnaires to the competent officer, officer or statistical agency.

The proclamation under this section shall be published in the Government Gazette.

Section 17. If the competent officer or officer does not meet the person who is to complete the forms or questionnaires, or a person designated in his

place, the competent officer or officer should deliver such forms or questionnaires to any person over 20 years of age, living or working in the dwelling place or office of such person, or post the forms or questionnaires in a place where they can be easily seen.

After a period of fifteen days from the date of posting such documents as stated above, it shall be considered as having been duly received by the said person.

Section 18. The competent officer or officer shall have the power to enter the dwelling place or office of the person who must complete the forms or questionnaires during any time between sunrise and sunset, in order to examine any evidence or documents relating to the completion of the forms or questionnaires, or to check the accuracy of the statements and figures which are recorded in the forms or questionnaires. In such a case, the individual concerned shall give reasonable facilities to the competent officer or officer.

Section 19. When performing his duties, the competent officer or officer shall, upon request, show his identity card to the, person concerned.

Section 20. The identity card of the competent officer or officer shall follow the form stipulated under Section 20 of the Ministerial Regulations. The statistical agencies shall send copies of every statistical item which is compiled to the National Statistical Office.

Section 21. All statements or figures, on an individual basis, which are recorded in the forms or questionnaires shall be treated as strictly confidential. No person, performing his duties under this Act, shall reveal any information to any other person who has no duty to perform according to this Act, except for the purpose of an inquiry or trial of an individual accused of committing an offence under this Act.

Section 22. Whosoever does not complete the forms or questionnaires following the procedures as stipulated by the Secretary-General of the National

