1990년대 국가통계관리세미나 참가보고서

1989. 9.

경제기획원 조사통계국

차 례

Ⅰ. 국가통계관리 세미나 참가보고

1. 보고서 작성자

- 소　　속 : 경제기획원 조사통계국
- 직위 및 성명 : 통계분석과장 한 성 찬

2. 회의 개요

가. 회의명

- Seminar on Managing National Statistical Services in the 1990s

나. 회의주관

- United Nations Economic and Social Commision for Asia and the Pacific

다. 회의성격

- ESCAP 지역국가의 국가통계 현황 및 관리체계, 통계작성 여건, 통계생산의 보급 및 통계작성 기술에 관한 논의

라. 회의기간

- 1989. 7.31 - 8. 4 (5일간)

마. 회의장소

- 태국, 방콕 ESCAP의 서비스빌딩 3층

바. 참가국 및 기관

- 참가국

  Afghanistan, Australia, Bangladesh, Brunei, China, Fiji, France, India, Indonesia, Iran, Japan, Loa PDR, Malaysia, Micronesia, Mongolia, Myanmar, Nepal, New Zealand, Pakistan, Philippines, Korea, Samoa, Singapore, Solomon Islands, Thailand, Tonga, USSR, Vanuatu, Viet Nam, Cook Islands, Hong Kong

o 국제기관

UNICEF, ILO, FAO, IRRD, MCAT, SIAP

3. 회의 의제

가. 개회식

나. 임원선출

다. 의제채택

라. 통계기구의 운영과 활동

마. 통계작성 여건

바. 통계생산의 보급 및 판매

사. 통계작성에 따른 기술 효과

아. 통계인력 자원개발

자. 국가통계체계에 대한 통계기관의 역할

4. 의제별 주요토의 내용

가. 통계기구의 운영과 활동

- 참가국들의 COUNTRY PAPER를 중심으로 국가통계기관들의 현황에 관하여 토의
- 각 나라들이 중앙정부 뿐만아니라 지방정부 수준의 통계활동도 관리할 수 있는 통계기구의 설치운영이 요구되고 있음.
- 통계이용에 대한 자문과 연구를 할 수 있는 기구를 설치 운영함으로써 통계의 질을 향상시키고, 통계이용자들에게 신뢰를 줄 수 있도록 하여야 함.
- 통계기관은 정책입안기관과의 밀접한 관계 유지를 통하여 새로이 요구되는 통계의 신속한 파악과 향후 개발통계의 우선순위 등을 적절히 책정해야 함.

- 각국에서 생산되는 통계를 국제간에 서로 협력하여 필요한 통계를 활용할 수 있도록 각국간에 관계를 모색.

나. 통계작성 여건

- 통계조사와 자료수집에 있어서 통계작성자와 응답자에 대한 권리와 의무를 법률로 제정하여 효율적으로 통계활동을 관리할 수 있는 역할이 요구되고 있음.
- 통계의 이용에 따른 통계 이용자 요구에 부응할 수 있는 통계의 진실성과 시의성을 확보해 주는 통계제도 장치를 갖추어 주어야할 필요성이 있음.
- 통계생산자, 공급자, 이용자들간에 원활한 활동을 위한 통계자문기구 설치운영이 바람직함.
- 지방정부의 통계조직과 중앙정부의 통계조직간에 상호 유기적 협력관계를 유지할 수 있는 역할이 요구되고 있음.

다. 통계생산의 보급과 판매

- 대부분 국가들은 통계정보를 정기간행물과 비정기간행물로 통계 이용자들에게 보급하고 있으나, 최근에는 점차적으로 테이프, 디스켓, CD-ROM, 마크로피시 등으로 이용자들에게 공급하고 있음.
- 통계생산과 정보 공급은 중앙통계기구에서 직접 보급되고 있으나, 통계하부조직을 통해서도 간접적으로 공급되고 있음.
- 통계 정보 제공에 따른 제반 비용은 통계 이용자에게 부담 지우고 있음.

라. 통계작성에 따른 기술 효과

- 컴퓨터 기술 발달에 의하여 통계작성기법도 크게 발전하고 있음.
- 자료처리를 위한 자료입력 기법도 인력입력방법에서 OMR, OCR, CAC 방법 등으로 전환되고 있어 신속한 통계 보급에 기여할 수 있음.

- 통계 보급도 대중전달 체계로 전환되고 있어 손쉽게 통계 이용자들에게 공급할 수 있음.
- 컴퓨터 기술 발달로 인하여 잠재적으로 미래의 통계작성기법의 발전에 기여할 수 있음.

마. 통계인력 자원개발

- 통계 교육은 과거 10년에 걸쳐서 대학을 중심으로 급속히 발전되어 왔지만 학계, 연구기관을 통한 응용통계 교육은 더디게 발전되어 오고있는 실정.
- 통계작성기법의 활용을 컴퓨터로 이용함에 있어서 컴퓨터에 대한 전문적 기술 교육과 아울러 수련된 기능을 갖출 수 있도록 주의 여건을 마련해야 됨.
- 통계전문인력을 양성하기 위한 전문기관을 설치.

바. 국가통계 체계에서의 통계기관의 역할

- 국가통계사무를 총괄관장하는 중앙통제기관은 각 통계기관이 수행하는 통계업무를 종합조정하고 통계체계를 정비하여 통계의 진실성과 시의성을 확보.
- 통계작성기관의 책임자와 통계전문가로 구성된 통계자문기구를 설치 운영함으로써 국가통계의 체계적 발전을 기여할 수 있음.

5. 대표단 활동

가. 국가통계의 발전과정과 현황에 대하여

1) 국가통계의 발전과정

- 우리나라의 통계발전과정은 개발연대가 시작된 1960년 이전 활동과 그 이후의 활동으로 대별

- 1960년 이전의 국가통계활동은 정부에서는 인구센서스, 인구동태조사 등 인구통계가 중심이 되었고 한국은행을 비롯한 민간기구에서는 광공업통계, 농가경제통계, 생산지수편제 등 경제통계를 생산하여 정부통계를 보완.
- 1961년 국가의 경제발전을 체계적으로 추진하기 위하여 경제기획원을 설치하고 중앙통계기관을 흡수하기 시작한데에서 통계발전의 획기적인 전환기를 맞음.
- 국가통계사무를 총괄 관장하는 중앙통계기구를 두고 각 부처에서도 자기가 필요한 통계를 자체생산할 수 있도록 통계조직을 갖추고 있는 분산형 통계제도로 각 통계기관이 수행하는 통계업무를 종합 조정함.

2) 통계작성현황

- 현재 각 기관에서 작성하는 통계중 통계법의 적용대상이 되는 통계는 342종으로 조사통계가 163종, 행정보고 통계가 179종에 이르고 있음.
- 정부에서 승인한 국가 공식 통계작성기관은 86개 기관이며 지방정부를 포함한 정부기관이 41개 한국은행을 비롯한 공공, 민간기관이 45개임.

나. 대내외 여건의 변화와 대응에 대하여

1) 국가발전정책의 전환과 정보화 시대의 도래

- 1980년대에 들어와서 국가의 개발 전략이 경제성장 위주에서 성장과 형평을 이념으로 종합적인 사회개발과 지역적인 균형발전으로 전환됨에 따라 사회형평을 증진하고 국민 생활의 질을 향상하기 위한 사회부문의 통계에 대한 수요가 급증하고 있음.
- 경제사회가 복잡 다기화되고 산업구조 변화가 급속히 이루어짐에 따라 정부, 기업, 연구소, 학계 등에서 각종계획 수립은 물론 모든 업무분야에서 광범위한 통계정보가 요구되고 있음.

- 첨단 정보산업의 발달은 필연적으로 통계정보의 관리체계에도 큰 변화를 가져와 통계정보를 체계화하고 종합관리하여 공동활용하는 통계종합관리 전산망의 구축이 요구되고 있음.
- 1960년대 이후 개발 행정의 수행을 위하여 많은 통계가 양적으로 크게 성장하였으나 통계전문인력과 조직은 뒤따르지 못하였으며 통계에 대한 국민의 인식은 저조하여 질적인면에서 많은 문제점을 내포하고 있음.

2) 변화하는 환경에 대한 대응

- 우리나라는 지난 30년동안 개발 정책으로 달성한 고도의 산업사회와 세계적으로 나타난 정보와 사회에 신속히 대응하기 위하여 기존 통계를 질적으로 개선하여야 함.
- 새로운 통계를 개발하여 국가 기본 통계가 일괄된 계획하에 체계적으로 작성될 수 있도록 국가통계 작성 체계를 개편해야 함.

다. '90년대 국가통계 추진 방향에 대하여

1) 통계의 질적 개선 및 개발

- 사회 보건 통계 개발 및 전산화를 통한 행정자료의 효율적 활용을 강화하여 조사통계에 대한 응답자의 기피로 인한 질적 저하를 방지
- 일차 통계의 생산에 치중해 온 통계작성기법을 크게 개선하여 제2차 통계,가공 통계 작성을 강화.
- 인구종합분석 등 통계분석기법을 도입하여 정책 형성자를 비롯한 통계 이용자의 활용을 보다 용이하게 함.
- 1990년에 실시하게 되는 인구 및 주택센서스와 1991년에 실시하게 되는 총사업체 통계조사의 결과를 토대로 각종 표본조사의 표본을 개편하며 산업생산지수, 도소매 물가지수 등 10여종의 경제지수의 기준 년도를 신속히 개편하여 현실반영도를 높임.

- 자료입력 기법을 인력입력 기법에서 기계감지 방법으로 전환하여 자료의 신속한 활용을 도모하고자 함.
- 조사방법을 타계식 조사에서 점진적으로 자계식으로 전환 검토.
- '80년대 후반부터 추진하고 있는 국가행정 전산망과 연계하여 행정통계의 활용을 적극화 함.
- 지역의 균형발전과 지방화 시대에 대비하며 각종 지역계획의 기초자료인 지역통계를 개발하여 지역의 과학행정 지원.

2) 국가통계제도의 정비

- 국가통계제도를 점진적으로 집중형으로 전환하여 조사통계국을 청단위로 확대 개편하여 부족한 통계전문인력의 효율적 활용을 기하고 통계의 중복으로 인한 이용상의 혼란과 예산 및 인력의 낭비를 방지함.
- 3원화 되어있는 지방통계조사 체계를 단일화하여 새로운 통계개발에 적극 대응할 수 있도록 함.
- 지방정부가 작성한 통계를 종합하면 전국 통계가 생산될 수 있도록 지방통계 조직을 강화.
- 조사통계국 데이타베이스를 보다 확대하고 중앙정부, 지방정부, 각 연구기관과 통계 전산망을 구축하여 통계 활용을 극대화 함.
- 중앙통계기관인 통계청에 통계연수기구를 설치하여 기존의 직무교육과 새로운 통계인력의 양성업무를 담당하며, 학계, 연구기관과 통계작성기관의 전문가의 교환근무제의 도입을 통한 산학협력 체계를 강화하여 통계 생산자와 이용자 대화를 강화하는 한편 개발된 통계이론을 현실에 도입하고 그 과정에서 발생하는 문제점을 극복하여 통계의 질을 향상시킴.

Ⅱ. 회의자료 (원문)

FOR PARTICIPANTS ONLY

31 July 1989

ECONOMIC AND SOCIAL COMMISSION FOR ASIA AND THE PACIFIC

ESCAP/SIAP Seminar on Managing National Statistical Services in the 1990s
31 July-4 August 1989
Bangkok

TENTATIVE SCHEDULE OF DISCUSSIONS

Monday 31 July 1989

0930 - 1000 hours

Item 1	Opening of the Seminar by Mr. S.A.M.S.Kibria, Executive Secretary of ESCAP	
Item 2	Election of Chairperson, Vice-chairperson and Rapporteur	
	Interval of 15 minutes	

1000 - 1200 hours
1330 - 1630 hours

Item 3	Adoption of the agenda	STAT/SMNSS/L.1 STAT/SMNSS/L.2
Item 4	Operational aspects of national statistical services	COUNTRY PAPERS

Tuesday 1 August 1989

0900 - 1200 hours
1330 - 1630 hours

Group discussions

Item 5 — The infrastructure for statistical services — STAT/SMNSS/3, STAT/SMNSS/5, STAT/SMNSS/9

Participating countries:

Australia	Fiji
India	Indonesia
Iran	Lao PDR
Malaysia	Nepal

[Conference Room 1-B]

Item 6 — Dissemination and marketing of statistical products — STAT/SMNSS/6, STAT/SMNSS/7

Participating countries:

Afghanistan	China
Cook Islands	New Zealand
Pakistan	Papua New Guinea
Philippines	Singapore

[Conference Room 1-C]

Item 7 — Impact of technology on statistical services — STAT/SMNSS/4, STAT/SMNSS/8

Participating countries:

Bangladesh	Hong Kong
Japan	Republic of Korea
Sri Lanka	Thailand
Vanuatu	Viet Nam

[Conference Room 1-D]

NOTE: The three group discussions, in separate rooms, would be chaired by the Chairperson, the Vice-chairperson, and the Rapporteur, who, at the end of the day, would each prepare a summary of discussions/comments/suggestions/recommendations of the respective group.

Countries listed against each item were invited to contribute substantive discussion documents. The available documents would be introduced, and oral contributions made where countries have not submitted any document. Participants from countries attending the Seminar but not listed above, and those from organizations/agencies, can join any group(s) at their discretion.

Wednesday 2 August 1989

0900 - 1200 hours
1330 - 1630 hours

Item 5 Item 6 Item 7	Consideration in plenary of the summary reports from persons chairing the groups, and additional comments/discussions from other participants. Finalizing the contents and texts which would appear in the Seminar report under each item.	

Thursday 3 August 1989

0900 - 1200 hours

Item 8	Human resource development for statistical services	STAT/SMNSS/2

1330 - 1630 hours

Item 9	The role of statistical offices in national information systems	STAT/SMNSS/1

Friday 4 August 1989

1330 hours onwards

Item 10	Adoption of the report.

LIMITED

STAT/SMNSS/L.1
12 April 1989

ENGLISH: ONLY

ECONOMIC AND SOCIAL COMMISSION FOR ASIA AND THE PACIFIC

ESCAP/SIAP Seminar on Managing National Statistical Services in the 1990s
31 July-4 August 1989
Bangkok

PROVISIONAL AGENDA

1. Opening of the Seminar.
2. Election of officers.
3. Adoption of the agenda.
4. Operational aspects of national statistical offices.
5. The infrastructure for statistical services.
6. Dissemination and marketing of statistical products.
7. Impact of technology on statistical services.
8. Human resources development for statistical services.
9. The role of statistical offices in national information systems.
10. Adoption of the report.

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LIMITED

STAT/SMNSS/L.2
12 April 1989

ENGLISH ONLY

ECONOMIC AND SOCIAL COMMISSION FOR ASIA AND THE PACIFIC

ESCAP/SIAP Seminar on Managing National Statistical Services
in the 1990s
31 July-4 August 1989
Bangkok

ANNOTATED PROVISIONAL AGENDA

1. Opening of the Seminar

Formal arrangements will be made nearer the time.

2. Election of officers

A chairman, vice-chairman and rapporteur will be elected from among the participants.

[It is envisaged that each of these elected officials will chair one of the three group discussions dealing respectively with items 5, 6 and 7 of the provisional agenda, and report to the plenary for information and general comments.]

3. Adoption of the agenda

The provisional agenda will be considered and adopted with any amendments deemed necessary.

4. Operational aspects of national statistical offices

The Seminar will consider this item on the basis of a country paper from each participating country from the ESCAP region. The paper would touch specifically on the following:

(a) Organization of statistical services in the country, covering national as well as, where applicable, provincial/state level activities. An organization chart of the statistical system would be included.

(b) Planning of statistical activities and determining of priorities.

(c) Relationship with international organizations and agencies in statistical matters.

5. The infrastructure for statistical services

Under this item, the Seminar will consider legislative provisions for statistical activities, confidentiality of information vis-à-vis user needs, and the framework for fostering producer/supplier/user relationships. Other infrastructure needs could also be raised and discussed. Selected countries will be invited to contribute substantive notes covering these aspects for discussion.

6. Dissemination and marketing of statistical products

Countries have generally used the standard media to disseminate statistics. Newer devices have emerged, some of which are proving more effective. Some national statistical offices have also resorted to greater marketing of statistical products, sometimes in competition with the private sector. Payment for statistical information is thus involved. These and related issues will be considered under this item on the basis of papers to be invited from selected countries.

7. Impact of technology on statistical services

Most national statistical offices have acquired computer technology, and some of them have also started using communication technology in the collection, processing and dissemination of statistical information. Such technology is advancing continuously, revealing greater potential for future statistical work. The Seminar will consider these aspects through papers to be contributed by selected countries.

8. Human resources development for statistical services

While academic teaching of statistics has perhaps improved over the past decades, teaching of statistical applications, for both national statistical services and research, is lagging. Moreover, like most other professional pursuits, familiarity and competence in the use of computers are becoming essential for statisticians. Such expertise must therefore be developed among national statistical personnel. A consultant will look at these issues through a substantive paper which the Seminar will consider.

9. The role of statistical offices in national information systems

Most Governments generate considerable information through the national statistical service and administrative procedures. The co-ordinating role of the national statistical offices, however, has not

/always

always been effective, through either a lack of capacity/capability or the unresponsive stance adopted by these offices. A secretariat paper will highlight the issues involved to enable the Seminar to formulate suggestions and recommendations for the future.

10. Adoption of the report

The Seminar will consider and adopt the draft report prepared by the rapporteur.

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ECONOMIC AND SOCIAL COMMISSION FOR ASIA AND THE PACIFIC

ESCAP/SIAP Seminar on Managing National Statistical Services in the 1990s
31 July-4 August 1989
Bangkok

OPENING STATEMENT
BY MR. S.A.M.S. KIBRIA, EXECUTIVE SECRETARY,
ECONOMIC AND SOCIAL COMMISSION FOR ASIA AND THE PACIFIC

Distinguished Participants, Ladies and Gentlemen:

I have great pleasure in welcoming you all to this ESCAP/SIAP Seminar on Managing National Statistical Services in the 1990s. It is indeed encouraging to see such a large number of countries represented here, most of them by very senior officials from the national statistical services. This high level of representation no doubt indicates the interest your Governments have in the statistical activities of ESCAP as well as in the subject-matter of the Seminar. I had the pleasure of meeting many of you last week during the first session of the Committee on Development Planning and Statistics. Perhaps the arrangements for this Seminar contributed to the presence of a large number of statisticians at that Committee and to the very productive deliberations that ensued.

I am grateful to the United Nations Development Programme (UNDP) for providing the financial support for this Seminar through its programme support to our Statistical Institute for Asia and the Pacific (SIAP). This Institute has played an active role in training government statisticians and data processing personnel since the 1970s and, together with the Statistics Division of ESCAP, has contributed significantly to statistical development in the region. I am certain that national statistical services have benefitted considerably through

such collaborative efforts of the two units of ESCAP directly concerned with statistical matters.

ESCAP's interest and involvement in promoting statistical development and capability building among member countries has a long history. The creation of an adequate infrastructure through a functional and forward-looking statistical organization is important, indeed crucial, for a viable national statistical service. This aspect of development was recognized by ESCAP (then ECAFE) and the Statistical Office of the United Nations at an early stage. While discussions on appropriate or suitable forms of statistical organization at the national level featured in statistical meetings of ECAFE during the 1950s and 1960s, the first systematic consideration of the subject-matter was at the International Seminar on Statistical Organization which the UN Statistical Office convened at Ottawa in Canada in November 1973. That meeting provided useful guidelines on a global basis. In order to address organizational issues in the regional context, ESCAP convened its own Seminar on Statistical Organization which was held at Wellington in New Zealand in April 1979. That seminar considered many issues pertinent to countries of Asia and the Pacific, such as statistical legislation, centralized versus decentralized statistical systems, staff and statistical manpower development, relationships between suppliers, producers and users of statistical data, co-ordination of statistical activities, and technical assistance in statistics. Many of the same items were also discussed at the Seminar on the Organization of Statistical Work in a Changing Environment, held in the USSR in 1984.

All these topics were of contemporary interest at the time. While many of them are still relevant especially to some of the statistically least developed member countries of ESCAP, new issues have emerged. For instance, some very fundamental changes are taking place in the demand for more problem-

oriented information for planning and decision-making purposes with emphasis on subnational and microlevel statistics, and for greater analysis of statistics for policy options. Fundamental changes are also taking place in the collection, processing and dissemination of statistical information, largely through the advent of computer technology which, in its own right, is also changing at a fast pace. Whether censuses and surveys will resemble their current form ten years hence is a matter for conjecture.

Amidst these changes, and indeed interacting with them, is the fact that government statisticians have to work with dwindling and increasingly tight financial resources for statistical activities. They must also contend with increasingly unfavourable public attitudes regarding privacy and confidentiality of information supplied through censuses and surveys, as well as the response burden entailed in such statistical inquiries. Moreover, it is uncertain whether the current method of disseminating information through printed publications will remain valid, since users increasingly prefer direct access to data bases or data banks.

National statistical offices will have to adapt to these changes and prepare for their implications. The present seminar is therefore very timely as it provides an opportunity, firstly to review the developments in statistical organizations and services, and secondly, based on the review and your own personal experiences, to suggest guidelines for the 1990s and beyond. Personally, I am convinced on two points: that national statistical offices will have to adopt modern computer technology in their daily work, and that government statisticians will require greater versatility which should include expertise in statistics, computer applications, management and public relations.

A third point I might emphasize is the need to pay greater attention to administrative sources of data. In most governments, sectoral ministries and departments use a multitude of forms which can contain potentially valuable

statistical information. These forms need to be exploited by national statistical offices in collaboration with the government agencies concerned. With the application of computer technology, administrative records can constitute a valuable and relatively cheap source of data. This latter factor can help in circumventing the rising resource constraints which most statistical offices frequently encounter.

In the context of resource constraints, I would like to mention one further issue. You are no doubt aware that considerable efforts are required on the part of the secretariat in mobilizing resources for meetings such as this seminar. We believe that these technical meetings benefit countries and serve invaluably in promoting statistical development through exchange of ideas and experiences. Some reciprocity therefore becomes necessary especially from those invited countries whose costs of participation are provided for. Country papers, describing relevant work and implementation of new ideas and approaches, partly serve this purpose. However, many developing countries of the ESCAP region have progressed significantly and appreciably in their statistical systems and services during the past decade or so. New capabilities are now much more in evidence, and the outputs of many national statistical offices are noteworthy as well as commendable. We believe therefore that they should be more readily forthcoming in contributing substantive discussion papers explaining their innovative ideas and approaches to statistical problems and issues. Such papers would be of immense value to those national statistical offices which are struggling to improve their statistical services.

The secretariat will, in future, increasingly seek such papers from developing countries. Several countries have provided informative papers for this Seminar. I might mention in this regard that elsewhere in the United Nations system, for example in the conferences and technical meetings of the European

statisticians organized under the aegis of the Economic Commission for Europe, papers on national experiences and problems contributed by member countries constitute the bulk of discussion documents, whereby national ideas tend to be converted into regional approaches with whatever modifications that may be deemed necessary. In the ESCAP region we are coming nearer to that stage, and it will be in the interest of national statistical offices if they would start sharing their knowledge and experiences by writing and contributing discussion papers. I am convinced that such papers would not only highlight national and regional issues, but they would also provide a greater sense of participation in the statistical development process among ESCAP countries. I am sure the national statistical offices of developing countries would respond to the challenge in the desired manner.

Distinguished participants, the agenda before you, which may appear deceptively short at first glance, is indeed a heavy one. A number of issues of profound and emerging importance are enshrined in the few printed words. I am confident, however, that with your collective wealth of wisdom and experiences you will have no difficulty deciphering them. The secretariat will therefore look forward with keen interest to the outcome of this Seminar.

I wish you every success in your deliberations and a pleasant stay in Bangkok.

Thank you.

ECONOMIC AND SOCIAL COMMISSION FOR ASIA AND THE PACIFIC

ESCAP/SIAP Seminar on Managing National Statistical Services in the 1990s

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COUNTRY PAPERS ON OPERATIONAL ASPECTS OF NATIONAL STATISTICAL SERVICES

1) Afghanistan
2) Australia
3) Bangladesh
4) Cook Islands
5) France
6) Hong Kong
7) India
8) Iran
9) Japan
10) Korea
11) Loa PDR
12) Malaysia
13) Mongolia
14) Nepal
15) New Zealand
16) Pakistan
17) Philippine
18) Samoa
19) Singapore
20) Sri Lanka
21) Thailand
22) Vanuatu

Statistical System and Activities in Afghanistan

Introduction:

It is hardly necessary to stress the need for factual statisical information for administrative, decision making and planning purposes. In order to collect the needed data and information reliably the operational, managerial, organizational and other relevant problems must be tackled properly. Considering the fact, almost all countries have already set up elaborate institutional machinary for the collection and processing of data. However, the questions which remain unanswered in most instances are substantial; basically due to the type of data and the level of disaggregation and timeliness.

As far as organization of the statistical system is concerned, practically there is not a fully decentralized or centralized system. Each system has actually its own merits and demirits. The relative merit of each system is in some cases a reflection of particular circumstances

prevailing in the country concerned. In any case, there is an essential need for basic statistical legislation formally to establish the objectives of the national system and the operation of the national statistical organization and to provide for the coordination of all units of government statistical services.

The statistical system of Afghanistan prior to 1972 was highly decentralized. There was no legal basis for coordinating the work of many statistical units of the various government organizations to establish priorities of programmes and to avoid duplication of statistical activities. Simultaneously, national and international needs for various statistical information was increasing. In order to meet such needs and to make the statistical system of the country more efficient in utilization of scarce skills, equipment and financial resources and with consideration of all the other merits of a centralized statistical system in a developing country, for the first time in 1972 a centralized statistical system, with the establishment of the Central Statistics Office (CSO) of the country, was organized. Since then, the CSO has been

reorganised a few times in order to meet the ever-increasing statistical needs of the country. Few years later, the statistical law of Afghanistan was promulgated and it was revised in 1984. This law gives wide power and authority to CSO in strengthening, developing and coordinating statistical activities of the country.

Statistical System:

1- Statistical Organization:

The statistical system of the Republic of Afghanistan (RA) is mainly centralized. As mentioned earlier, CSO of Afghanistan was set up in 1972. At the beginning CSO was headed by a president general under the prime minister office. Then for a while this office attached to the Ministry of State. In 1978, CSO was attached to the Ministry of Planning, and was headed by deputy minister for statistical affairs. This attachment was aimed at maintaining close consultation with the planners who are the main users of statistical data.

Considering the importance of the timely and reliable data for the success of planning and decision making purposes in the country the government of

Afghanistan promoted the authority of the central statistics office in the government hierachy. In 1983, the status of CSO was raised as an autonomous organization headed by a president general, with the rank of minister, being directly responsible to the council of ministers. President general of CSO in statistical affairs is assisted by two deputies.

At present, CSO of Afghanistan consists of 9 departments in the central office, 31 provincial and 23 sub-provincial offices located in four big provinces. Central Statistics Office (CSO), comprises the following departments:

- Documents and Relations Department
- Economic Statistics Dept.
- Demographic and Social Statistics Dept
- National Accounts Dept.
- Censuses and surveys Dept.
- Planning and Coordination Dept.
- Computer Sercices Enterprise (CSE)
- Provisional Relations Dept.
- Administrative Dept.

Each lepartment has its own relevant divisions and sections for operational purposes . Provincial statistics offices of CSO also consists of different sections. Plan is underway for gradual establishment of sub-provinces and district statistical offices all over the country. This plan could possibly be implemented whenever the situation becomes favourable and the necessary funds are also made available.

In order to maintain a sound statistical system in the country the statistical offices will be organized in provinces and sub-provinces. Because most of the statistical information has to be collected and supplied for provincial and national needs through these offices. For this reason, serious attempts has always been made to set up and organize the provincial statistical offices; since the establishment of CSO. However, due to the prevailing circumstances this process has faced many obsticals.

In 1989, the total number of permanent and contract staff in CSO reached 770 of which 540 persons are working in the central office including computer services enterprise and the rest in the provincial offices.

Since 1978, Central Statistics Office of Afghanistan has had its own Computer which was assisted by UNFPA for the data processing of the First Population Census of the country. After liquidation of the Afghan Business Machines Corporation (ABM) all the computer equipment was shifted to the Computer Center of CSO. In 1985 the Computer Center of CSO became a self-supporting entity under the name of Computer Services Enterprise of CSO, aimed at leading all informatios activities in the country.

The Computer Services Enterprise (CSE) is the only organization in the country which offers all kinds of data processing and maintenances of EDPs to all types of developmental, Scientific, Statistical and research activities for government and private sectors. The CSE consists of system design and programming, Engineering, Operation, data entry, accounting and administrative divisions. At present, this enterprise employs about 180 permanent and contract staff. CSE has the core of trained maintenance engineers, system analysts, programmers and operating personnel to maintain the computer equipments and to develop and implement more than 30 systems.

As in any other country where a centralized statistical system is functioning there are statistical units in the

sectoral ministries and organizations mainly for the purpose of recording and reporting of the statistical information through their administrative records, to CSO and for their own uses. These units carry out their activities in accordance with the provision of the Statistical Law of Afghanistan, instruction and guidance of CSO and their own regulations and procedures.

There are 67 statistical cells and units in the government organization where about 335 permanent and contract staff are working. A close working relation exists between CSO and these statistical units.

In the area of population statistics which CSO conducting population and housing censuses and demographic surveys the Department of Population Registration of the Ministry of Interior Affairs and the Family Guidance Association and Maternal and Child Care Department of the Ministry of Public Health collect and compile their relevant statistics. They are responsible to report their collected informations through standard forms to CSO. But at the time being due to the existing circumstances their activities are limited as a result of which the reporting is not maintained properly.

Afghanistan has a mixed economy and the snare of private sector in all branches of economy is remarkable. Unfortunately the statistical reporting in this sector even in the organized part of its activities is much weaker than the similar activities of the government sector. However, the establishments and enterprises are obliged to record and report their statistical information. Up till now stitistical units have not set up in many of these establishment and enterprises, Statistical reporting to CSO is done by their managerial authorities to some extant.

In concluding this section the organizational chart of CSO in Afghanistan for 1989, is illustrated in annex(1).

2- Legistative:

There is a strong legislative provisions for statistical activities in Afghanistan. The statistical law of Afghanistan which was promalgated in 1975 and revised in 1984 gives wide power and authority to CSO for centralization, coordination integration and priority setting and development and strengthening of statistical activities. The law institutes the right to compel statistical reporting by government and non-government organizations, establishments, enterprises, municipalities, households and individuals, and guarantees

the confidentiality of statistical inquiries.

Based on the statistical law, CSO is mainly responsible for collection, compilation, analysis, evaluation, processing, publication and dissemination of statistics of all the important socio-economic sectors and branches through administrative records and conducting censuses and surveys. Although most of the statistical activities are centralized there is provision in the law for the ministries and organizations to register and report their sectoral statistics to CSO and for their own uses. It is worthy to mention that according to the law, official statistics are the statistics which are directly published or certified by CSO of Afghanistan.

Activities:

Statistical activities and determination of the priorities are planned on the basis of national needs. In any statistical undertaking international comparabilities are also considered. At present Central Statistics Office is in charge of collecting, processing and disseminating of statistical information in all main socio-economic areas, such as agriculture and animal husbandary, industry and mining transport and communication, commerce, construction, prices, national accounts, manpower, demographic and social services statistics.

Another priority area of statistical activities of CSO is the collection of information on the progress of the planned indicators and the socio-economic development projects of the country. Such information which is needed for the control and monitoring of the plan is collected on quarterly basis and supplied to planners, policy makers and top government authorities.

Most of the information collected and processed on the above mentioned areas emanates from administrative records of the various organizations which are responsible to report to CSO on special forms and questionaires sent to them

Due to the continuavion of the undeclared war which has been imposed by external interferences on Afghanistan and because of limited funds and facilities in the last ten years only few censuses and surveys have been conducted in the country. They include the Frist national population census in 1979, Kabul City population census in 1986, Kabul city Income-Expenditure and Handicrafts survey in 1987, Mazari-Sharif city handicrafts survey and some other small ad-hoc surveys in other cities of the country. There were plans to carry out some other censuses and surverys but because of the reasons mentioned it was not possible to conduct them so far.

The Computer Services Enterprise of CSO is responsible for processing of statistical and accounting information on commercial basis. The main areas of computer application in CSE of CSO are as follows:

- Statistical Processing
- Payrol and financial accounts
- Banking applications
- Electricity bills
- Management Information system
- AirLines accounting system

The data processing of the statistical activities is the first priority for CSE. Other priorities are mainly determined on the basis of the decisions of the high government authorities, request of the users and the availability of computer time.

Relations With International Organizations:

The Central Statistics Office of Afghanistan since its establishment has had relations with various international organizations with respect to exchange of statistical information and obtaining their cooperation in training statistical staff and financing some of the statistical projects. Since CSO beside fulfilment of national needs for

statistical data is also responsible to provide information for international comparability, supply statistics on the socio-economic situation of the country through various questionaries and forms sent to CSO by international organizations. However at present due to the unavailability of certain statistics the extent of such cooperation is limited. In order to achieve a better exchange of population information with regional and international institutions and organizations and to create a systematic and permanent information system in the country the Afghan population Documentation and Information Center (APDIC) was established in CSO with assistance of DSCAP and UNFPA.

In addition the computer services Enterprise of CSO at the national level has been appointed to be the focal point for receiving and transmitting information within and outside the country. CSE is also a member of Regional Informatios Network for South and Central Asia (RINSCA) initiated by UNESCO in the region.

Central Statistics Office of Afghanistan acknowledges with appreciation the technical, financial and training assiatance provided by certain UN and other International organizations on various statistical and data procassing activities of the country. Some of the UN organization

which have assisted CSO generously are UNFPA, UNDP ESCAP, UNICEF, UNESCO and FAO, However, the amount of the assistance of certain UN organizations has deminished in recent years, CSO has prepared and submitted to some UN agencies

Project proposals for financial and technical assistance in different statistical fields such as national accounts, early warning and crop forecasting system, strengthening of agricultural and livestock statistics, socio-economic household surveys, computer software and hardware and training programmes.

Dissemination of Statistics:

The ultimate goal of stutistical system of a country is to disseminate the collected and processed data and information in proper time to the national and international potential users. CSO of Afghanistan disseminated the collected and processed data through distribution of statistical tables, charts pamphlets, circulars, folders, analytical reports and regualr statistical bulletines,yearbooks, booklets etc, to the government organizations researchers and other internal and external users. Some of the mass-media of the country are also occasionally used for dissemination

of some statistical information and for publicity on the availability of statistical publications.

It may be mentioned that due to the lack of awareness on the importance of the statistical information in this country, at present most of the statistical publications are supplied free of charge because there is no much demand for purchase of statistical products. However, certain important publicatione namely statistical yearbooks, locality gazeteer etc. have been made available for sale.

Training:

Lack of qualifad staff in CSO of Afghanistan is considered to be one of the main impediments toward the development of statistical system of the country. Despite that CSO continucusly attempts to cope with this problem in order to implement its envisaged programmes properly. Therefore, the following training activities are being organized to upgrade the level of statistical knowledge of CSO staff.

- organizatig and conducting a seminar every year for the head of statistical units of the ministries and government organizations. In this Seminar the statistical programme with regard to current statistice recording and reporting for next year and the problems arisen in past years and any other relevant issues are discussed. Also a similar seminar

is organised every year for the heads of the provincial statistical offices.

- organizing some specialized on job training courses in various areas of statistics and computer.

- organizing country ocurses with teaching assistance of the UN training institutions such as SIAP.

- Actively participating in all UN and relevant International training institutions such as International Institute for Population Sciences (IIPS) in Bombay, Cairo Demographic Center, SIAP, Indian Statistical Institute (ISI) at Calcuta, and the US Bureau of Census. Unfortunately for several years, in spite of the urgent need of Afghanistan for trained and qualifed statisticans some of the above mentioned institutions, mainly cairo Demographic Centre, SIAP and US Bureau of census have stopped their cooperation with Afghanistan and have suspended their training programme to CSO of Afghanistan.

- Recently two year regular courses in demography has been organized by Kabul University with the technical and financial assistance of UNFPA. To overcome the problem of trained personnel in the field of computer hardware and

software, two years ago a department under the name of micro-electronics and Computer sercices has also been established in the framework of the faculty of Natural Sciences at Kabul University.

- However, some staff are trained through various faculties of Kabul University and are sent to foreign countries under the mutual cooperation of friendly countries. Expertise for teaching of statistical applications for both national statistical services and research is not satisfactory. Thus expertise in the field of computer science is limited.

Future activities:

In order to meet the needs of the data users CSO has always been trying to identify the data gaps on a continuous basis in the context of national and international priorities. Thereforee CSO for fulfilment of the national and international requirements in the area of statistics with due consideration of the country and with availability of necessary funds in addition to the present activities, will try to carry out the following activities to improve statistical organizations, coordination, recording of current statistical activities and conducting some consuses and sample surveys in 1990s.

Further strengthening of statistical organization through establishment of statistical offices in all administrative units of government in the country side and in government and non-government organizations.

- Further strengthening of the role of coordination, quidance and control of statistical units and cells at ministries and organizations in the country.

- Consinuation and expansion of training efforts for training of the statistical staff.

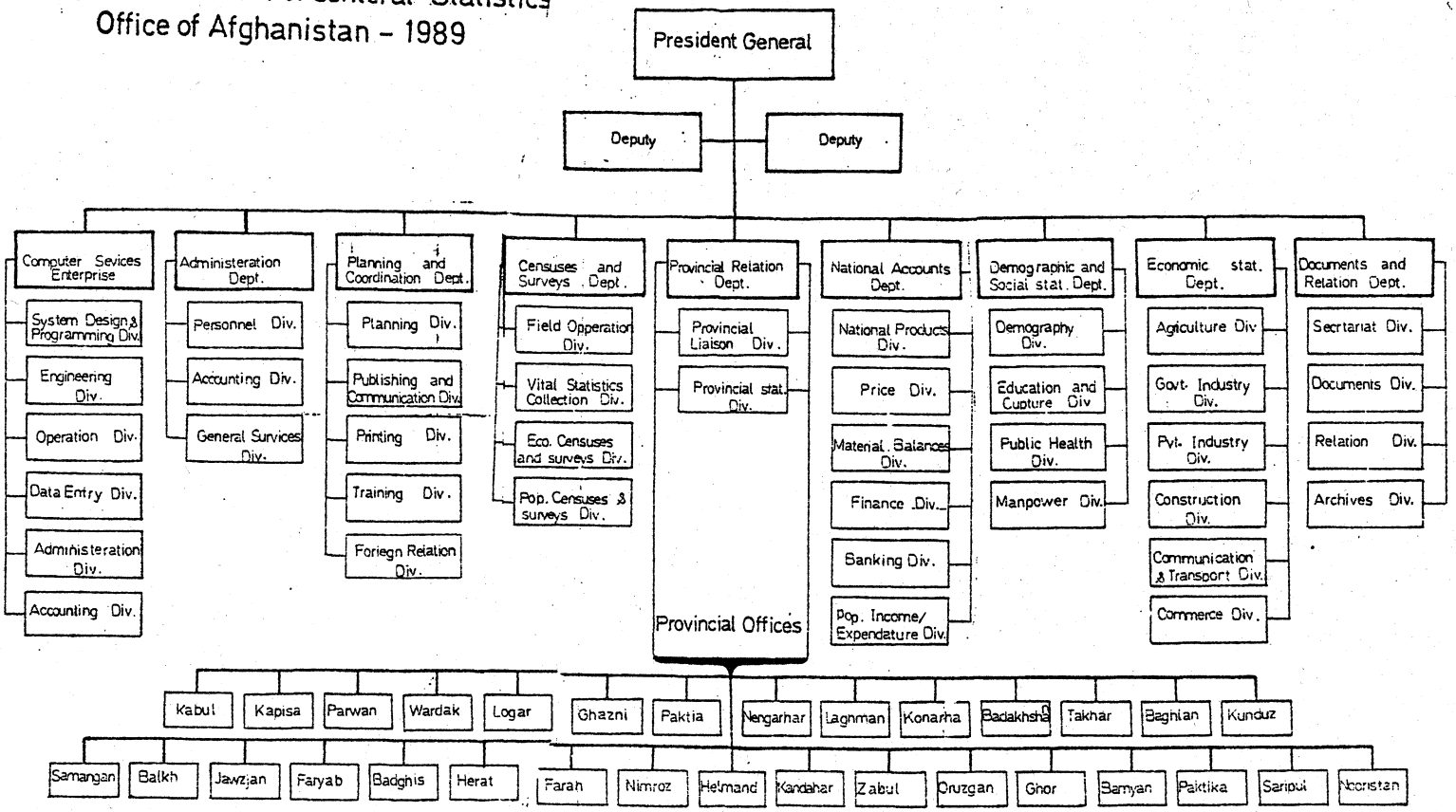
- Improvements of procedures of recording and reproting of all types of current and vital statistics with close collaboration of the concerned organizations.

- Planning in relation with cnesuses and surveys is underway to carry out migration survey with emphasis on internal migration and displaced persons, second population and housing census, agriculture and livestock census, continuation and expansion of household income-expenditure survey continuation and expansion of handicrafts survey, and some other socio-economic and demographic surveys.

Strengthening of the computer center of CSO and establishing computer center networks in Kabul city and in provinces in consecutive stages.

Some of the undertakings metnioned above can be implemented when the undeclared war imposed on our people stops, and the national reconciliation policies is fully realized and consequently peace and tranquillity is maintained in the country. Since Afghanistan is a least developing country therefore, the implementation of big statistical and computer tasks such as second population census, agriculture and livestock census and expansion of computer services like any other major socio-economic development programmes, require external and technical assistances. CSO of Afghanistan for the successful conduct of such activities looks forward for cooperation of UN and other international organization. The Afghan government accords due priority to development of statistics so that timely and reliable statistics be provided for planning and policy making purposes.

Organization chart of Centeral Statistics Office of Afghanistan – 1989



BACKGROUND

The Commonwealth of Australia is a federation of six States, formed in 1901, in which the power to govern is divided between the six State and the Australian Parliaments. The Northern Territory and the Australian Capital Territory became largely independent, under their own parliamentary systems, in 1978 and 1989 respectively, and now in effect operate as two additional States. In the Australian Constitution, census and statistics is specified as one of the matters within the jurisdiction of the Commonwealth Parliament.

2 At the time of Federation in 1901, each of the colonies, of which the country was then comprised, had its own statistical organisation. These organisations, which collected and published a wide range of statistics for each colony, continued in existence after federation. The Commonwealth *Census and Statistics Act 1905* led to the establishment, in 1906, of the Commonwealth Bureau of Census and Statistics, the forerunner of the present Australian Bureau of Statistics (ABS). The Act created the position of Commonwealth Statistician (now the Australian Statistician), the occupant of which was given powers and responsibilities to conduct a population census and to compile and tabulate statistics for Australia.

3 Over the years the need for closer co-ordination of Commonwealth and State statistical services became evident. In the late 1950s (1924 in the case of Tasmania), the States entered into arrangements with the Commonwealth under which officers of the State organisations were offered positions in the Commonwealth Bureau and the separate statistical organisations in each of the States ceased to exist. As a consequence, the Commonwealth undertook to provide statistical services to the State Governments.

4 These arrangements offer substantial advantages. They involve fewer requests for information from people and businesses than if the Commonwealth and States both ran extensive statistical collections. They require less staff and funding than the total that would be required by separate Commonwealth and State statistical offices. They ensure the use of a single Australia-wide set of definitions in ABS collections, with consequent advantages for businesses supplying data. They keep to the forefront the desirability of interstate comparability of statistics.

5 More recently, the *Australian Bureau of Statistics Act 1975* established the Australian Bureau of Statistics (formerly the Commonwealth Bureau of Census and Statistics) as a statutory authority responsible directly to a Minister of the Australian Government (currently the Treasurer) and created the office of Australian Statistician (formerly the Commonwealth Statistician), empowering him to take over the functions, powers and duties expressed in earlier relevant legislation. The Act also established the Australian Statistics Advisory Council (ASAC), comprising an independent Chairman, the Australian Statistician, and between 10 and 22

other members representing a wide cross-section of government and private interests, including a representative of each State Premier and each Chief Minister in the case of the Territories. Its functions are to advise the Minister and the Statistician on matters pertaining to the provision of official statistical services in Australia, including annual and longer term priorities and work programs of the ABS.

5 The functions of the ABS as stated in the 1975 Act are:

- to constitute the central statistical authority for the Australian Government and, by arrangements with the Governments of the States, provide statistical services for those Governments;
- to collect, compile, analyse and disseminate statistics and related information;
- to ensure co-ordination of the operations of Commonwealth Government agencies in the collection, compilation and dissemination of statistics and related information;
- to formulate, and ensure compliance with, standards for the carrying out by Commonwealth Government agencies of operations for statistical purposes;
- to provide advice and assistance to Commonwealth Government agencies in relation to statistics; and
- to provide liaison between Australia on the one hand, and other countries and international organisations on the other hand, in relation to statistical matters.

6 The Act requires the Statistician to submit to the Commonwealth Parliament an annual report on the operations of the ABS. ASAC is required to submit a similar annual report.

ORGANISATION

7 Besides the Central Office in Canberra the ABS has an office located in the capital city of each State and the Northern Territory. In Western Australia, South Australia and Tasmania the officer in charge of each of those offices is also the State Government Statistician.

8 The number and distribution of staff is shown in the following table.

Distribution of Staff 1988-89

Average monthly staff numbers

Canberra	1641
Sydney	453
Melbourne	381
Brisbane	332
Perth	238
Adelaide	216
Hobart	124
Darwin	41
Total	*3426*

9 ABS expenditure in 1988-89 was $133.6 million, of which by far the largest component was salaries. Other large items were expenditure on office requisites, postal and telephone services, and payments to field interviewers (agents). Receipts totalled $5.0 million, largely from 'for sale' publications. Details of both expenditure and receipts are given in Appendix 1.

10 In order to provide official statistics, the ABS undertakes a large number of separate collections, ranging from periodic censuses of industry to regular surveys to provide current economic indicators, from household surveys on specific social or economic issues to the population census. In addition, the ABS devotes considerable efforts, in close co-operation with Commonwealth and State administrative agencies, to producing statistical series such as import entries and motor vehicle registrations.

11 Each field of statistics is the responsibility of a subject matter unit. These are organised into three Divisions: Economic Accounts, Industry, and Social and Labour. The service functions of the ABS are organised into three Divisions: Statistical and Information Services, Computer Services, and Coordination and Management.

12 The top structure, senior staff and program responsibilities of the ABS are shown in Appendix 2.

13 The distribution of expenditure across various statistical and services activities for 1985-86 to 1987-88 is shown in Appendix 3.

14 In order to produce relevant statistics the ABS must keep in touch with users regarding their statistical requirements and with respondents to collections regarding their ability to provide data. This is done at a number of levels, and through various channels, depending on the area of statistics concerned.

15 The various subject matter units maintain ongoing contact with suppliers and users of data through a variety of means including standing committees, user groups, conferences and seminars of representative organisations, and through day-to-day contact in the course of collecting and disseminating

data. ABS officers outposted to government departments and authorities also play an important part in these respects.

16 At the highest level, ASAC plays an active role regarding the direction and priorities of the ABS work program. The annual Conference of Statisticians, at which State governments are represented by a State official, and which is attended by the officer in charge of each State Office of the ABS, is another forum in which directions and priorities are examined, with particular reference to meeting State statistical needs. A statistical co-ordination and consultative mechanism also operates in each State and the Northern Territory.

MANAGEMENT

17 The diverse activities involved in providing official statistical services require a considerable management effort to marshall resources in an optimal fashion. From the early 1970s the ABS became increasingly aware not only of the virtual impossibility of attempting to satisfy all demands, but also of the constraints of limits on public spending and the burden placed on respondents. Efforts to respond positively and responsibly to increasing demands, while staying within these constraints, led to a reshaping of management practices. This reshaping process has continued to today; what follows is an outline of the main features of the system of management of the ABS today.

Strategic Management

18 The ABS has embarked upon the continuing process of strategic management in order to influence what the ABS does and how it operates in the future. We understand that the future of the ABS, like that of any other government agency, indeed any government statistical agency, will be affected to some extent by the external environment within which all government agencies operate. But we also believe that, to a much larger extent, the future of an organisation such as the ABS depends upon its capacity and willingness to define its mission, set out its objectives and create the conditions under which those objectives can be achieved.

19 As a first step in this systematic and continuing process, the ABS has developed a corporate plan which is based on the perception of planning towards a desired state.

- gives the ABS a way to identify and cope with change,
- gives the ABS a chance to shape its own future,
- provides a framework for operational planning,
- gives ABS management something to check progress against,
- gives the ABS a vehicle for changing its directions deliberately in future if we need to, and
- helps to give everybody in the ABS a better understanding of the organisation's role, and their role within it.

20 In developing the corporate plan, senior ABS management considered the key issues relating to developing a responsive statistical service in Australia. These issues, which were also considered at several meetings of the Australian Statistics Advisory Council, are as follows:

- What is the role of the ABS in providing statistical services to
  - the Commonwealth and State Governments and their agencies,
  - the private sector,
  - community organisations,
  - research bodies, and
  - individual citizens who wish to inform themselves about the Australian economy and the Australian society?
- How far should the ABS extend its activities into analysis of the data it collects?
- What can be done to ensure the widest possible dissemination of ABS information? Are the existing mechanisms adequate?
- How can the ABS take maximum advantage of advancing technology in collecting, compiling, analysing and disseminating statistics?
- What is the role of the ABS in fostering statistical standards, including standard classifications?

21 It was concluded that ABS collections must be sensitive to the real needs of decision makers both in the public and private sectors, and capable of speedy modification to respond to new needs as they emerge, that delivery of the required information must be efficient and effective, and that the ABS can best achieve the goal of producing accurate, timely and impartial statistical information when the ABS analyses that information and publishes the results of that analysis. This does not, of course, relieve the ABS of the obligation to assist those (both within government and outside) who wish to undertake independent analysis of ABS data.

22 It was also concluded that the ABS should be seen as a high quality, professional organisation in the statistical world - both within Australia and internationally. This means that the ABS needs to be at the forefront of statistical research activity, methodological development and technological developments in areas of particular relevance to national statistical agencies.

23 These are ambitious objectives and they will only be achieved when the skills, energies and enthusiasm of the staff

of the ABS at all levels are used to maximum advantage.

24 The corporate plan which was developed comprised in the main

- a Mission Statement, which tries to encapsulate in a few words our purpose as an organisation, and

- a statement of objectives and strategies, which identifies the main things we are going to address (objectives) and the main directions for change which we intend to pursue (strategies).

25 The mission statement, the objectives and, for one objective, the strategies are included as Appendix 4.

26 ABS experience shows that corporate planning enhances operational planning, where traditionally most of our planning efforts had been focussed. It has provided an extended time horizon which stimulates longer range thinking and ensures that operational planning is sensitive to major strategic initiatives. It is the responsibility of the officers in charge of Divisions in Central Office, who are in charge of groups of subject matter or service areas, to ensure that the interlinking and intermeshing occurs between the strategic and the operational views.

Operational Management

27 A program/project framework, overlaid on the formal organisational structure, facilitates a co-ordinated approach to the operational planning, disposition and use of staff and financial resources. Program/project managers and leaders are identified in Central Office and in each State Office. In essence this program/project management, together with the normal hierarchical line management within each office, forms the basis of a formal matrix management system across all offices. A description of the program responsibilities is provided in Appendix 2, and projects are simply finer dissections of programs.

28 Within this framework and consistent with objectives and strategies of the corporate plan, a rolling three year forward work program is developed each year. Before provision is made for staffing levels in future years, all proposals for new or extended collections are analysed to ensure that appropriate account has been taken of resource demands on the service areas whose contribution will be essential to successful completion of the proposal. Estimates are made of staffing requirements for proposals judged to be of high priority. Staff estimates for ongoing work and for projects already approved are reviewed and extended a further year ahead.

29 In order that feasibility studies or developmental activities are not commenced for proposals unlikely to be implemented, regard is had to the total resources likely to be available to the Bureau within the three year period and to the total demands on service areas which the proposed forward

work program would entail.

30 In drawing up the forward work program, judgments about relative priorities of ongoing and proposed collections are made in the light of continuing consultations with users of statistics, the likely impact on respondent load and privacy issues, and the market potential and revenue implications of the various initiatives proposed. Broad objectives are established for each program and specific goals to be achieved over the three year period are specified for each project.

31 Proposals from program managers are considered by senior management in the period June to September each year. The forward work program and estimates which emerge are then examined by the Advisory Council, reconsidered in the light of its advice and then submitted to the Minister.

32 An example of the operational plan which results, for one program only, is given as Appendix 5.

33 As decisions are made by the Government on staffing and finance, resources available for the first year of the forward work program become the basis for controlling and monitoring the use of resources in all offices of the Bureau. Staff and financial resources, particularly for travel, overtime and payments to field interviewers, are allocated at project level to each office. The responsibility for the use of these resources lies with the respective project managers. The allocations are reviewed periodically during the year to take account of project experience and any changes in circumstances that have occurred or are foreseen.

34 Regular assessments on a program/project basis are also made to ascertain if the goals set down in the work program are being achieved. In addition, heads of Central Office Branches and of the State Offices report formally to senior management, on a rotation basis, on achievements against the agreed goals. In this way overall managerial effectiveness is monitored and senior managers both in Central Office and the State Offices have an opportunity to discuss problems with senior management of the ABS.

35 This program/project system is further enhanced by periodic meetings of senior officers of the Bureau, generally comprising the Australian Statistician, the Deputy, and the officers in charge of Central Office Divisions, occasionally enhanced by the officers in charge of the State and Territory Offices, to consider general policy, statistical, technology and administrative matters. One of the standing items on the agenda is the work program, which is discussed in detail before presentation to ASAC.

36 From time to time, inter-office conferences are held of representatives of subject matter or service units, or those engaged on particular projects. The benefits of such communication for a geographically dispersed organisation such as the ABS are significant.

37 Overlaid on these management practices are some special arrangements to ensure the successful redevelopment of computing systems. A standard systems development methodology has been adopted. All work is undertaken by multi-discipline project teams under the direction of line managers, aided by management and technical review committees. Periodic reports are furnished to senior management.

Information Systems Management

38 A very important and often forgotten aspect of the planning of statistics is the planning for the provision of information systems. It is no exaggeration to say that in the ABS computer systems have become the factory line upon which the production of statistics is based. Unless the information systems management is attuned with the overall requirements of the statistical agency the statistical product can and will be substantially disrupted.

39 Further, the ABS like all other organisations, must cope with rapid technological change, and this is becoming a more important concern and one which is also becoming more difficult to handle. Hardware/software technical and cost characteristics have and will continue to evolve rapidly, thereby offering substantially different and profitable approaches to applications development. Information systems staff need to properly identify shifts which are significant for statistical offices and then develop plans to manage them. On the other hand, users of statistical systems must be made aware of the implications of these changes in a way that will encourage them to identify appropriate profitable new applications. Further, in a climate of rapid technological change planning becomes increasingly more important, particularly to ensure that the statistical office does not unwittingly fall into a proliferation of incompatible systems.

40 There are a number of factors which make the assimilation of information systems technology into the work of a statistical office a particularly challenging task as well. These include:

- Experience with the use of computers in Australia, even though the ABS was one of the first government agencies to move in this direction, is really quite short. The first computers were introduced into the ABS in the late 1960s and over a short period of time there have been considerable changes in the thinking of how best information systems can be utilised within the organisation; these changes, of course, occur in conjunction with changes in the power and applicability of available technologies.

- Another issue is that there has been an explosion in the capability of technology and its use over this time and this explosion appears to be continuing. This has meant that new work can be done effectively and that old work can be done in different ways.

- Over this period the complexity of the use of information systems has meant the creation of specialised departments

resulting in the need to be aware of relationships between these departments and the users of their services.

- A major issue is that as information systems technology has evolved, a proliferation of languages, database management needs and operating systems, etc has been created, which has significantly increased the complexity of the information systems management job.

- The type of work being aided by information systems has changed from the simple edit/amend and tabulation systems to the provision of analysis capabilities, graphics, seasonal adjustment of time series and the estimation of trends. More recently, there have been further developments in the use of expert systems such as for graphics and seasonal adjustment which have changed the way in which information systems might be applied in the statistical process.

In combination these factors create a very complex and challenging managerial environment.

41 In the case of the ABS, to monitor the general management process in the organisation an Information Technology Strategic Plan has been developed which takes into account the major thrusts of the Corporate Plan, the development of information services generally and the general requirements of a government agency. Flowing from this plan are the normal rolling 3-year forward work programs, particularly those relating to the development of applications systems. In addition, as mentioned earlier, the senior management group meets on a regular basis to review progress with technological issues, and they are often discussed in other senior management forums.

CO-ORDINATION OF STATISTICAL ACTIVITY

42 Although the ABS is the central statistical authority in Australia, a significant amount of statistical activity is undertaken by other Commonwealth and State Government authorities. For Commonwealth agencies, procedures exist for co-ordinating this activity to minimise duplication, reduce the reporting burden on respondents and enhance the usefulness of official statistics. All existing and proposed new statistical collections undertaken or planned by Commonwealth departments and authorities (with certain defined exceptions) are subject to a joint report by the ABS and the agency concerned with a view to establishing their justification, scope for greater efficiency, compatibility of data, etc. The ABS has also established a register of collections for purposes of co-ordination control.

43 An important element of the work of the ABS in fostering the co-ordination of statistical activity across government agencies is the outposted officer service, through which senior ABS officers are located in other government departments and agencies on either permanent or short-term bases, depending on need. The outposted officers have the role of co-ordinating statistical operations between the bodies involved and the ABS; encouraging the adoption of uniform statistical standards; and encouraging an integrated approach to statistical development.

In some instances they assist in providing an internal statistical service for the host agency. Generally speaking, outposted ABS officers have provided an effective channel of consultation and liaison with major government producers and users of statistics.

44 The ABS helps to maintain statistical standards by the provision of specialist services on a consultative basis to Commonwealth and State Government agencies. The Bureau's consultancy units have stimulated the use of improved methodology (particularly survey and sample design, estimation procedures and data analysis) for many statistical collections conducted by other government agencies.

45 Many of Australia's official statistics are derived from the administrative processes of government agencies. The ABS maintains close contact with these agencies and, when changes are proposed in processing systems, frequently offers assistance at the design stage to facilitate output tailored for official statistical purposes, as well as for the direct requirements of the agency.

46 Statistical co-ordinating bodies have been established by all State and Territory Governments to monitor and co-ordinate the statistical activities undertaken by their own departments and authorities. The ABS assists this work through representation on, or close liaison with, these bodies.

RELATIONSHIP WITH INTERNATIONAL ORGANISATIONS AND AGENCIES IN STATISTICAL MATTERS

47 One of the functions of the ABS, as laid down in the *Australian Bureau of Statistics Act 1975*, is "to provide liaison between Australia, on the one hand, and other countries and international organisation, on the other hand, in relation to statistical matters". In accordance with this statutory requirement, the ABS Corporate Plan specifies, amongst strategies to be pursued, that "the ABS will ... foster and contribute to the development of international statistical standards, and implement such standards where appropriate, and ... assist and encourage statistical development in the Asia/Pacific region". In addition, Australia, of course, fulfils commitments to supply national statistical data required by international bodies.

48 The ABS, in fact, takes an active interest in statistical work of international organisations and agencies. In particular, Australia is active in the ESCAP arena, and with the Statistical Institute for Asia and the Pacific (SIAP), attending conferences and seminars and providing support and assistance as appropriate. The ABS also follows, with keen interest, the work of the United Nations Statistical Commission, and was a member of the Commission in the early 1980s. Further, the ABS also provides the extensive amount of statistical data which is sought by international agencies.

49 The ABS also takes an interest in and supports the statistical work of other bodies in the United Nations system (such as the Conference of European Statisticians, the Food and

Agriculture Organisation, the International Labour Organisation and the International Monetary Fund) and other international organisations such as the South Pacific Commission and the Organisation for Economic Cooperation and Development. In addition the ABS participates in the activities of the International Statistical Institute and associated bodies. The Australian Statistician will take office as President-elect of the International Association of Official Statistics in the latter part of 1989.

50 Australia participates in the Conferences of Commonwealth Statisticians which are held once every 5 years or so and are attended by government statisticians from most of the member countries of the Commonwealth of Nations and their dependent territories - about 60 countries and territories. The next conference, to be held in April 1990, will be hosted by Australia.

51 The ABS provides considerable technical assistance to official statistical agencies in developing countries in the Asia and Pacific region. The assistance takes the form of visits to countries or regional centres by ABS staff, usually with fares and allowances being externally funded, to provide advisory services and training, and visits to Australia, by staff of official statistical agencies of countries in the region, for study tours and training. In some cases the assistance is in support of work of an international body (such as ESCAP). In nearly all cases, funding of fares and allowances is from technical assistance projects of international bodies.

52 The largest single activity of this nature by the ABS has been assistance to the General Statistical Office (GSO) of Vietnam in preparation for a population census on 1 April 1989. The assistance was provided at the request of ESCAP's Statistics Division, in support of its role as technical backstopping agency for UNFPA projects giving assistance to Vietnam for the census. The assistance by the ABS involved hosting short study tours by senior GSO officials, and providing training in Australia for approximately a month for each of 2 groups of 5 GSO staff. One group was given training in various population census techniques, and the other group was given training in data processing. In addition, ABS experts in various population census techniques and data processing visited Vietnam as consultants to advise and train GSO staff in particular aspects of census preparations. The census field enumeration proceeded very well.

53 However, the ABS has given assistance during the last 2 years, or expects to give assistance in the near future, to official statistical agencies in the following countries, either by providing ABS experts to visit the countries or by hosting visits by staff of the statistical agencies of the countries: China, Malaysia, Nepal, the Philippines, Singapore, Cook Islands, Federated States of Micronesia, Fiji, Guam, Kiribati, Solomon Islands, Tonga, Vanuatu, and Western Samoa. In a few cases, ABS staff visiting these countries were involved in conducting training courses sponsored by international organisations and attended by staff of official statistical agencies of other Pacific countries.

Canberra
June 1989

ABS PROGRAM EXPENDITURE AND RECEIPTS: 1987–88, 1988–89 AND ESTIMATES: 1989–90

	1987–88	*1988–89*	*1989–90*
	Actual	*Actual*	*Total estimates*
	$'000	$'000	$'000
EXPENDITURE			
Salaries etc –			
Salaries	96 827	96 466	98 678
Overtime	1 065	900	670
Total	*97 893*	*97 366*	*99 348*
Administrative expenses –			
Travel and subsistence	2 847	2 589	3 060
Office requisites	5 772	7 165	7 937
Postage and telephones	5 964	5 794	5 646
Computer services	3 656	3 995	6 404
Incidentals (a)	3 992	4 327	6 805
Payments to agents	5 953	6 741	7 528
Total	*28 184*	*30 611*	*37 380*
Compensation and legal expenses	1 393	714	2 681 (b)
Property operating expenses	..	..	22 800 (c)
Plant and equipment	3 629	4 872	11 190 (d)
Total expenditure	*131 098*	*133 563*	*173 399*
RECEIPTS			
Miscellaneous revenue –			
Sale of publications (e)	2 287	3 628	3 800
Other revenue (f)	1 170	1 392	2 400
LESS ABS share of miscellaneous revenue	228	..	800
Total miscellaneous revenue	*3 228*	*5 020*	*5 400*
TOTAL OUTLAYS	*127 870*	*128 543*	*167 999*

(a) Includes fringe benefits tax. (b) Includes workers' compensation premium. Prior to 1989–90 most compensation expenses were paid by another government agency. (c) Includes rent and service charges on office accommodation. Prior to 1989–90, these costs were appropriated to the Department of Administrative Services. (d) Includes major computer upgrade in preparation for 1991 Census. (e) Excludes receipts by the Australian Government Publishing Service from sales of ABS publications. (f) Increased revenue from enhanced cost recovery on ABS products and services.

Note: Any differences between totals and sums of components are due to rounding.

TOP STRUCTURE AND STAFF OF THE ABS, WITH PROGRAM RESPONSIBILITIES, AT 30 JUNE 1989

Top structure and Staff	*Program responsibility*
Australian Statistician *Ian Castles, AO, OBE*	Executive
Deputy Australian Statistician *Bill McLennan*	
Head, Resource Effectiveness Project *John Carroll, AM*	
Assistant Statistician, Resource Effectiveness Project *Henri Kriegel*	
CENTRAL OFFICE DIVISIONS	
Economic Accounts Division *Fred von Reibnitz*	
National Accounts Branch *Paul McCarthy*	National accounts
International Accounts Branch *Barbara Dunlop*	International accounts Trade
Public and Private Finance Branch *Don Efford*	Financial institutions Public finance
Industry Division *George Sarossy*	
Distribution and Service Industries and Economic Indicators Branch *David Steel*	Distribution and services industries Business surveys Science and technology
Production Industries, Transport and Tourism Branch *Max Booth*	Agriculture Mining Energy Manufacturing Construction Transport Tourism Economic censuses system
Business Register, Classification and Industry Census Branch *John Struik*	Integration, classification and development Integrated register
Social and Labour Division *Tim Skirvner*	
Consumer Income and Expenditure Branch *Keith Blackburn*	Prices Social (part)
Social and Demography Branch *Geoff Sims*	Demography Social (part)
Labour Branch *Alan Mackay*	Labour

Top structure and Staff	*Program responsibility*
Statistical and Information Services Division *Dennis Trewin*	
Statistical Services Branch *Sue Linacre*	Econometric and time series analyses Mathematical statistics
Information Services Branch *Robin Green*	Information services Publishing Marketing Electronic dissemination
Population Census and Surveys Branch *John Cornish*	Population census Population surveys
Computer Services Division *Bill Egan*	
Technology Support Branch *Bryan Fitzpatrick*	Computer operations and software
User Support Branch *Paul Pentony*	Computer applications
Technology Planning and Investigation Branch *Terry Heming*	Computer technical services and planning
Coordination and Management Division *Rob Edwards*	Coordination
Personnel Management Branch *John Dent*	Personnel management
Resources Management Branch *Ivan King*	Resource management Management support Management review
STATE AND NORTHERN TERRITORY OFFICES	
New South Wales Office *John Wilson*	
Victorian Office *Dick Crockett*	
Queensland Office *David Allen*	
Western Australian Office *Brian Pink*	
South Australian Office *Russell Rogers*	
Tasmanian Office *Stuart Jackson*	
Northern Territory Office *Peter Gardner*	

ABS PROGRAM – ESTIMATES OF EXPENDITURE BY COMPONENT: 1985–86 TO 1987–88

	1985–86			*1986–87*			*1987–88*		
Program element	*Direct*	*Total(a)*		*Direct*	*Total(a)*		*Direct*	*Total(a)*	
	$'000	$'000	%	$'000	$'000	%	$'000	$'000	%
STATISTICAL OPERATIONS									
Information services	6 429	..	..	6 410	..	..	7 472	..	..
National accounts (b)	1 724	3 194	3.0	1 874	3 168	2.9	2 069	3 605	3.0
International accounts	2 370	4 205	3.9	2 391	3 905	3.6	2 410	4 270	3.5
Trade	2 651	5 763	5.4	2 546	5 552	5.1	2 602	6 082	5.0
Prices	3 604	5 370	5.0	3 774	6 102	5.6	3 848	6 056	5.0
Financial institutions	1 112	1 952	1.8	1 218	2 180	2.0	1 246	2 267	1.9
Public finance	2 427	4 786	4.5	2 787	5 039	4.6	2 824	5 113	4.2
Agriculture	3 671	8 763	8.2	3 725	8 778	8.1	4 308	10 167	8.4
Mining	545	1 294	1.2	585	1 286	1.2	621	1 161	1.0
Energy	391	2 167	2.0	252	610	0.6	586	1 459	1.2
Manufacturing	3 545	7 899	7.4	2 205	4 711	4.3	3 737	7 677	6.3
Distribution and services industries	2 360	6 754	6.3	4 503	14 630	13.5	3 672	12 288	10.1
Construction	2 997	8 582	8.0	2 505	5 152	4.7	2 338	4 776	3.9
Transport and tourism	2 381	4 870	4.5	1 512	2 840	2.6	1 762	3 599	3.0
Business surveys	1 915	4 224	3.9	1 866	3 994	3.7	1 985	3 909	3.2
Science and technology	285	592	0.6	236	460	0.4	297	546	0.5
Integration, classification and development	1 157	..	..	1 245	..	..	1 444	..	..
Economic censuses system	1 204	..	..	2 504	..	..	1 400	..	..
Demography	2 101	3 979	3.7	2 208	4 207	3.9	2 257	4 399	3.6
Labour	5 937	22 203	20.7	5 413	24 556	22.6	6 930	26 951	22.2
Social	5 599	9 447	8.8	5 864	10 342	9.5	5 795	11 840	9.8
Time series	918	1 008	0.9	967	1 090	1.0	1 110	1 266	1.0
Mathematical statistics	1 467	..	..	1 537	..	..	1 663	..	..
Statistical services and user liaison	2 006	(c)	..	1 809	(c)	..	2 498	3 766	3.1
Population surveys	10 088	..	..	11 022	..	..	12 223	..	..
Integrated register	4 545	..	..	4 470	..	..	4 642	..	..
Data management (d)	255	..	..	277	..	..	86	..	..
Computer operations and software	12 171	..	..	12 443	..	..	12 826	..	..
Computer applications	6 037	..	..	6 014	..	..	6 635	..	..
Co-ordination	1 655	..	..	1 420	..	..	1 509	..	..
CORPORATE SERVICES									
Executive	2 832	..	..	3 337	..	..	4 077	..	..
Personnel management	4 646	..	..	5 677	..	..	6 194	..	..
Resource management	796	..	..	910	..	..	925	..	..
Management support	6 116	..	..	6 639	..	..	6 744	..	..
Management review	..	..	..	62	..	..	223	..	..
Computer technical services and planning	2 570	..	..	3 174	..	..	3 344	..	..
Non ABS (e)	204	204	0.2	31	31	..	..	..	..
TOTAL EXCL POPULATION CENSUS AND PLANT AND EQUIPMENT	*110 708*	*107 254*	*100.0*	*115 409*	*108 630*	*100.0*	*124 302*	*121 196*	*100.0*
Population census (f)	10 633	14 087		47 569	54 348		3 396	6 502	
Plant and equipment (g)	2 620	2 620		2 369	2 369		3 629	3 629	
LESS ABS share of revenue	..	..		..	..		228	228	
ABS PROGRAM TOTAL	*123 961*	*123 961*		*165 347*	*165 347*		*131 098*	*131 098*	

(a) Statistical components only; includes estimated costs of service components allocated in accordance with usage on statistical components. (b) The costs of collecting data used in compiling the national accounts are included in the respective subject matter components. (c) This component was treated as a service component in these years. Estimates of its total costs are $3.02m in 1985–86 and $2.73m in 1986–87. (d) This component was discontinued early in 1987–88. (e) Telephone costs incurred by non-ABS tenants of Cameron Offices (subsequently recovered). (f) Includes plant and equipment for population census. (g) Includes expenditure on the computer enhancement program. Excludes plant and equipment for population census.

Note: Any differences between totals and sums of components are due to rounding.

ABS MISSION STATEMENT

Our mission is to assist and encourage informed decision-making, research and discussion within governments and the community, by providing a high-quality, user-oriented and dynamic statistical service; we will actively co-ordinate statistical activities across government agencies and promote the use of statistical standards.

ABS OBJECTIVES

ABS objectives are to:

1 Maintain a balanced, timely, relevant statistical service.

2 Ensure product quality.

3 Extend and improve our statistical service.

4 Co-ordinate statistical activities of other government agencies.

5 Promote statistical standards, classifications and frameworks.

6 Balance benefits to users with public and private costs of collection.

7 Promote the ABS to policy makers and community leaders.

8 Develop ABS staff.

9 Be cost efficient and increase our productivity.

OBJECTIVE 3

The ABS will extend and improve its statistical services to users.

Strategies

Specifically, the ABS will

(a) for each statistical program, identify the scope for enhanced efforts in objective analysis and interpretation of information and undertake such efforts where appropriate,

(b) for each statistical program, review the output strategy, including the appropriateness of the mix of dissemination media used,; in particular, reviews will address the content and presentation of publications, including main features, tabular and graphic presentation and incorporation (where relevant) of relationships with other series,

(c) for each statistical program, review quality and cost-effectiveness of "special tabulation" services provided to major government agencies,

(d) for each statistical program and for each State Office, investigate the possibilities for entering into co-operative arrangements with departments/agencies or academic/research bodies relating to the collection, analysis, interpretation or presentation of data,

(e) develop a dissemination strategy which makes ABS data more accessible electronically,

(f) develop strategies for better informing users and the media about ABS statistical products and services, and

(g) for each State Office, provide enhanced professional support services to State and Local Government users.

PROGRAM 202: NATIONAL ACCOUNTS

OBJECTIVES

To provide an appropriate set of national accounts and related data to support economic analysis of the Australian and State economies by government, business and academic analysts.

Specifically, the Program will provide accurate, timely and relevant statistics on the level of economic activity in, and the structure of, the Australian and State economies, to support uses which include :

- framing Commonwealth and State Budgets
- wage determination (Arbitration Commission Hearings)
- Grants Commission inquiries
- development and adjustment of monetary policy
- formulation of industrial development policies.

To contribute nationally and internationally to the development of national accounting concepts and supporting statistical systems.

To provide an overall framework for the development of a coherent system of concepts and classifications for the collection and presentation of economic statistics in Australia.

OUTPUTS

Printed publications are the main form of statistical dissemination although each of the quarterly series is also released on floppy disk, via AUSSTATS and in the TSS release (magnetic tape and microfiche). Some selected major quarterly aggregates are also available on VIATEL. Input-output tables are available on magnetic tape and microfiche in addition to the printed tables. Additional input-output tabulations may be produced to a user's specifications (on a charge basis).

Output activities include guidance to economic analysts in the use of the most appropriate information for their purposes and helping them to understand the data and the underlying conceptual framework of the System of National Accounts.

PROJECT 2021: NATIONAL INCOME AND EXPENDITURE

OBJECTIVES

To:

- provide data about the level of economic activity and the structure of the Australian and State economies for use by government, private and overseas analysts, academics, industry associations, trade unions etc. in the formulation and assessment of government macro-economic policies, wage determination policies, industrial development policies, etc. and other economic analyses.

- provide details of concepts, sources and methods used to compile the Australian national accounts and other explanatory material about the published estimates in order to aid interpretation of the national accounts by all users.

- provide a framework for confronting and reconciling data from various sources, in order to improve the quality of those data sources by identifying possible deficiencies and inconsistencies.

PERFORMANCE INDICATORS

(a) Output - the volume of products and/or services delivered by the project, including revenue;

(b) Input - costs (direct and total, see below) and response rates;

(c) Effectiveness - the extent to which outcomes match objectives, with emphasis on timeliness of outputs, respondent load and unmet demand; and

(d) Cost effectiveness - being effective for the least cost - ratios relating revenue to cost.

STAFFING AND COSTING

	Staff Usage and Project Costs			Allocations Salaries and Nominal Staff Years			
	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92
Staff Years	19.4	19.2	20.4	19.4	18.5	18.7	18.7
Salaries $'000	..	..	..	..	638	642	642
Direct Costs $'000	598.4	629.6	745.9	..	..	..	..
%	0.5	0.5	0.6	..	..	..	..
Total Costs $'000	983.9	995.3	1171.8	..	..	..	..
%	0.9	0.9	1.0	..	..	..	..

SELECTED PUBLICATIONS

5201.0 Australian National Accounts : National Income and Expenditure, Summary; Annual; first issue: 1980-81; 20pp

- Vehicle for initial release of the more important detailed information found in 5204.0.

5204.0 Australian National Accounts : National Income and Expenditure, Annual; first issue: 1948-49 to 1961-62; 88pp

- Detailed presentation of national accounts: Tables are grouped under the following headings - summary tables, financial enterprises, household income components of GDP, corporate trading enterprises, general government, overseas, capital, State tables, historical series, growth tables. Definitions and descriptions of items.

5206.0 Australian National Accounts: National Income and Expenditure; Quarterly; first issue: September Quarter 1960; 46pp

5207.0 Historical Series of Estimates of National Income and Expenditure, Australia; Annual; first issue: September 1959 to June 1971; 24pp

. Historical quarterly and annual estimates for major aggregates at current prices, at average 1966-67, 1974-75 and 1979-80 prices in both original and seasonally adjusted terms.

5213.0 National Income and Expenditure; Annual; first issue: 1938-39 to 1945-46; 18pp

. A Commonwealth budget-related paper containing annual estimates of major accounting aggregates for the last five years.

5216.0 Australian National Accounts: Concepts, Sources and Methods; Irregular; first and latest issue: 1981; 207pp

. History; conceptual framework; structure of the accounts; estimates at constant prices; methods of estimation of aggregates at current and constant prices; reliability, revisions.

5220.0 Australian National Accounts: State Accounts; Annual; first issue: 1985-86; 70pp.

. Detailed presentation of State accounts: Tables are grouped under the following headings - summary tables, gross domestic product at factor cost by industry and principal components, household income, farm income, private final consumption expenditure, public trading enterprises income and outlay accounts, public trading enterprises capital accounts, general government income and outlay accounts, general government capital accounts.

5221.0 Australian National Accounts: Estimates of Capital Stock; Annual; first issue: 1985-86; 21pp.

. Detailed presentation of capital stock and consumption of fixed capital. Tables are grouped under the following headings - summary tables by institutional sector, summary tables by type of asset, private enterprises by industry for non-dwelling construction and equipment, public trading enterprises by industry for non-dwelling construction and equipment, rates of return on capital by industry.

SPECIFIC MEDIUM TERM TASKS TO JUNE 1992

RESULTS TO BE ACHIEVED	*TARGET COMPLETION DATE*
Objective 1: Maintain service	
1 Analyse the data from 1987-88 Services Industries Survey and incorporate as appropriate in relevant national accounts aggregates.	March 1990

2	Analyse data from the 1986-87 and 1987-88 Agricultural Finance Surveys and incorporate as appropriate in the farm sector estimates of the national accounts.	March 1990
	Objective 2: Ensure product quality	
3	Publish analysis of accuracy and reliability of current price national accounts in Australian National Accounts: Concepts, Sources and Methods (see Task 10).	May 1989
4	Finalise national accounts data requirements for annual and quarterly economy-wide surveys.	June 1989
5	Develop methods for combining ATO and December 1989 ABS data for national accounts compilation.	December 1989
6	Use results of first AEWS in trial compilation of national accounts.	June 1991
7	Assess impact of AEWS on national accounts.	December 1991
8	Review resource and organisational implications of new approaches to compiling national accounts.	June 1992
	Objective 3: Improve service	
9	Enhance contents and presentation of quarterly national accounts publication (5206.0).	March 1989
10	Publish updated issue of Australian National Accounts: Concepts, Sources and Methods.	May 1989
11	Review project's marketing strategy to ensure optimal dissemination in terms of product boundaries and release media, and to maximise revenue potential.	June 1989
12	Incorporate additional State dissections of national accounts aggregates in 5220.0 (and possibly in 5206.0).	May 1991
	Objective 7: Promote the ABS	
13	Senior manager discussions with major users about results of first trial national accounts compilation using AEWS.	July 1991
	Objective 8: Develop staff	
14	Complete OSI for project.	December 1989

15	Complete current program of national accounts courses for State Offices (2 per year).	April 1991

Objective 9: Increase cost effectiveness

16	Identify options for improving efficiency and security of final stages of quarterly national accounts compilation.	July 1989
17	Develop appropriate systems for regular compilation of national accounts using combination of ATO and ABS data (see Task 5).	June 1992

PROJECT 2022: CONSTANT PRICE ESTIMATES

OBJECTIVES

To provide constant price estimates of the national accounts and other important economic statistics to allow accurate and timely assessments to be made of short to medium term changes in the economy, free of the direct effects of changing prices.

PERFORMANCE INDICATORS

(a) Output - the volume of products and/or services delivered by the project, including revenue;

(b) Input - costs (direct and total, see below) and response rates;

(c) Effectiveness - the extent to which outcomes match objectives, with emphasis on timeliness of outputs, respondent load and unmet demand; and

(d) Cost effectiveness - being effective for the least cost - ratios relating revenue to cost.

STAFFING AND COSTING

	Staff Usage and Project Costs			Allocations Salaries and Nominal Staff Years			
	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92
Staff Years	16.0	17.6	19.0	18.6	17.9	18.1	20.1
Salaries $'000	..	..	..	..	547	551	616
Direct Costs							
$'000	542.7	541.7	651.3	..	..	..	..
%	0.5	0.5	0.5	..	..	..	..
Total Costs							
$'000	905.1	901.7	1145.0	..	..	..	..
%	0.8	0.8	0.9	..	..	..	..

SELECTED PUBLICATIONS

5211.0 Australian National Accounts : Gross Product by Industry; Annual; first issue: 1962-63 to 1973-74.

- Estimates of gross domestic product at current and constant prices, and of gross product at current and constant prices by ASIC division and manufacturing subdivision. Estimates of employment and of gross product at constant prices per person employed for selected industries, industry groups and all industries.

5222.0 Australian National Accounts: Gross Product by Industry, Australia; Quarterly; first issue: March quarter 1988.

- Estimates of gross domestic product at constant prices, and of gross product at constant prices by ASIC division and manufacturing subdivision. Estimates of total employment and indexes of hours worked, GDP per person employed and GDP per hour worked; original and seasonally adjusted.

8211.0 Constant Price Estimates of Manufacturing Production, Australia; Annual; first issue: 1968-69 to 1973-74.

- Constant price estimates of manufacturing production by ASIC class, group, subdivision and division.

Note: There will be no issue in respect of 1985-86.

8219.0 Quarterly Indexes of Manufacturing Production, Australia; Quarterly; first issue: December quarter 1987. (Previously published as catalogue no. 5219.0; first issue: December quarter 1982).

- Indexes of gross product at constant prices by manufacturing subdivision and total; original and seasonally adjusted.

SPECIFIC MEDIUM TERM TASKS TO JUNE 1992

RESULTS TO BE ACHIEVED	*TARGET COMPLETION DATE*
Objective 2: Ensure product quality	
1 Publish analysis of accuracy and reliability of constant price national accounts in *Australian National Accounts: Concepts, Sources and Methods* (see Tasks 3, 10 for project 2021).	May 1989
2 Rebase constant price estimates to base year.	Results progressively 1989-90 from April to December 1993
Objective 3: Improve service	
3 Develop estimates of Multi factor Productivity	

	. feasibility report and initial estimates for EPAC paper	May 1989
	. revised paper for Conference of Economists	July 1989
	. (subject to quality) publish MFP data	December 1989
4	Develop appropriate constant price output measures for Services industries	
	. Wholesale	December 1989
	. Finance.	September 1990
5	Coordinate ABS's participation in 1990 round of Purchasing Power Parity Project.	December 1990
	Objective 7: Promote the ABS	
6	Senior manager strategic discussions on productivity measures during 1989.	December 1989
	Objective 8: Develop staff	
7	Complete OSI for project.	December 1989

PROJECT 2023: INPUT–OUTPUT

OBJECTIVES

To:

- provide detailed data about the structure of the Australian economy, in the form of input-output tables, to be used for planning and analysis by government economists, academics, industry associations, trade unions, etc.
- provide data about detailed inter-industry relationships, for use in the construction of economic models for forecasting purposes.
- provide a framework for confronting and reconciling data from various sources, in order to improve the quality of those data sources by identifying possible deficiencies and inconsistencies.
- provide technical advice to users building regional input-output tables and economic models.
- maintain and publish a concordance between production and trade items by IOCC item, for use in industry investigations by government, industry specialists, industry associations, academics, trade unions, etc.

PERFORMANCE INDICATORS

(a) Output - the volume of products and/or services delivered by the project, including revenue;

(b) Input - costs (direct and total, see below) and response rates;

(c) Effectiveness - the extent to which outcomes match objectives, with emphasis on timeliness of outputs, respondent load and unmet demand; and

(d) Cost effectiveness - being effective for the least cost - ratios relating revenue to cost.

STAFFING AND COSTING

	Staff Usage and Project Costs			Allocations Salaries and Nominal Staff Years			
	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92
Staff Years	18.3	20.9	19.3	15.0	14.4	17.5	14.5
Salaries $'000	..	..	..	..	462	561	473
Direct Costs							
$'000	582.7	702.5	672.1	..	..	..	..
%	0.5	0.6	0.5	..	..	..	..
Total Costs							
$'000	1305.0	1270.8	1287.8	..	..	..	..
%	1.2	1.2	1.1	..	..	..	..

SELECTED PUBLICATIONS

5209.0 Australian National Accounts : Input-Output Tables; Irregular; Annual from 1977-78; first issue: 1962-63; latest issue: 1981-82 and 1982-83; 114pp.

. Principal input-output publication containing the following matrices: input by industry and output by commodity group; industry by industry flows; direct and total requirements coefficients. The publication also provides detailed definitions and explanations of the concepts and structure of Australian tables; appendices show relationship of input-output and national income and expenditure concepts and aggregates, and details of classifications used.

Four microfiche of all major tables are included with the publication.

5215.0 Australian National Accounts : Input-Output Tables (Commodity Details); Annual from 1978-79; first issue: 1974-75; latest issue: 1981-82 and 1982-83; 166pp

. Detailed information about the Input-Output Commodity Classification (IOCC), and data for the value of Australian production, imports and exports for over 1000 commodities classified to the industry from which each originates, such as agriculture, manufacturing, business services and personal services.

SPECIFIC MEDIUM TERM TASKS TO JUNE 1992

RESULTS TO BE ACHIEVED	TARGET COMPLETION DATE
Objective 1: Maintain service	
1 Compile and publish input-output tables for the year 1983-84.	December 1989
2 Review I-O compilation strategy to identify what additional data should be collected in 1989-90 Manufacturing and Mining Supplementary surveys.	March 1990
3 Compile and publish input-output tables for the year 1986-87.	October 1990
4 Review uses of AEWS data for I-O purposes.	June 1992
Objective 2: Ensure product quality	
5 Undertake reconciliation between I-O and NIE aggregates for 1983-84.	December 1989
Objective 3: Improve service	
6 Review project's marketing strategy to maximise potential revenue.	August 1989
7 Provide consultancy assistance for construction of State I-O tables.	As required
Objective 5: Promote statistical standards and classifications	
8 Revise Input-Output Commodity Classification (IOCC) to allow for introduction of harmonised system of commodity classification.	December 1989
Objective 6: Balance benefits with costs	
9 Implement form design standards to reduce respondent burden in I-O Supplementary to Construction Industry Survey.	September 1989
Objective 7: Promote the ABS	
10 Senior management discussions with IAC and other major users on marketing of future I-O output.	June 1989
Objective 8: Develop staff	
11 Complete OSI for project.	December 1989
Objective 9: Increase cost effectiveness	
12 Update computer system to use new IOCC classification, and reclassify 1986-87 data.	September 1990

A: ORGANISATION OF STATISTICAL SERVICES

Bangladesh has centralised its major statistical services. This is in conformity with the unitary character of the national government. The national statistical office, responsible for managing this centralised system, is the Bangladesh Bureau of Statistics (BBS). The Bureau is headed by a Director General.

Under the present government administrative set-up, BBS is under policy guidance and administrative control of the Statistics Division, which is a separate Division under the Ministry of Planning. The chief executive of Statistics Division is Secretary, who reports directly to the Minister incharge of the Ministry of Planning.

The functional responsibilities of Statistics Division are to provide policy guidance on all official statistical programmes of the country and provide ministerial level support to the BBS. On the other hand, BBS being the technical organisation, performs tasks of (1) programming, designing, and conducting all national surveys and censuses (2) making all statistics and statistical information available to users both within and outside the country and (3) providing guidance to all other agencies about standard and coverage of sectoral statistical programmes and activities.

The present Director General BBS also heads the Statistics Division as its Secretary. This combination of role has made it possible to ensure effective integration of statistical policies with efficient implementation of programmes. The integration process has characterized the setting-up of such institutional arrangements as National Statistical Council (NSC) as well as maintaining systematic efforts devoted to (1) reorganisation of the Bureau into a capable and efficient national organisation (2) improvement and expansion of various surveys and censuses (3) advancement of skills and proficiencies of working statisticians through on-job and higher training and (4) proper coordination with other Ministries of the Government as well as outside agencies and all concerned international organisations.

The NSC, being the highest policy making body in the national system of statistics, provides a forum to producers and users of statistics and arriving at decisions regarding all major statistical activities and assignment of priorities. It has representations from major user ministeries, universities, research institutions and private sector bodies. The Chairman of the Council is the Minister for Planning and Secretary/Director General of Statistics is the Vice-chairman.

The following technical committees assist the NSC:

(1) agricultural statistics committee
(2) national and social accounts committee
(3) population and demography committee
(4) trade statistics committee
(5) industrial statistics committee
(6) sampling and survey committee, and
(7) economic census committee.

The Statistics Division, besides looking after governmental and policy issues regarding statistics, looks after programmes of training and personnel management at the higher levels.

Bangladesh Bureau of Statistics (BBS) functions through six permanent technical wings which are:

(1) Population census and demographic survey
(2) Agricultural statistics
(3) Industry, trade, labour and national income
(4) Research, training and sample survey
(5) Computer and data processing
(6) Reproduction, documentation and publication;

and eight temporary project related wings, which are:

(7) Economic census
(8) Agricultural census
(9) Population census
(10) Statistical cartography
(11) Demographic survey
(12) Upazila development monitoring
(13) Food for work
(14) Major crops input.

The two wings- Computer and data processing and Reproduction, documentation and publication and Cartography project extend common support services to the entire BBS.

Data processing wing operates one IBM System/4341 mainframe computer for bulk data processing and computations. Data entry outfit of the mainframe includes a System/34 and a number of dual data stations. For largescale data entry of censuses, optical mark readers (OMR) are also in use. There are also a number of PCs making up additional outfit of data processing. Needs of selected statistical programmes and also selected word processing demands are met by these PCs.

Reproduction, documentation and publication wing prints all statistical publications,forms, questionnaires and other materials needed by the Bureau in its own printing shop. The printing installation has letter press, desk top and offset facilities.

Statistical cartographic activity was started with the 1981 population census for (1) development of a comprehensive and uniform geo-codes for all administrative units of the country (2) making available updated field maps of mouzas/villages for use in censuses and (3) production of thematic and small area maps on data generated from the censuses and surveys. Since then this activity has been continued to support all surveys and censuses undertaken by the Bureau.

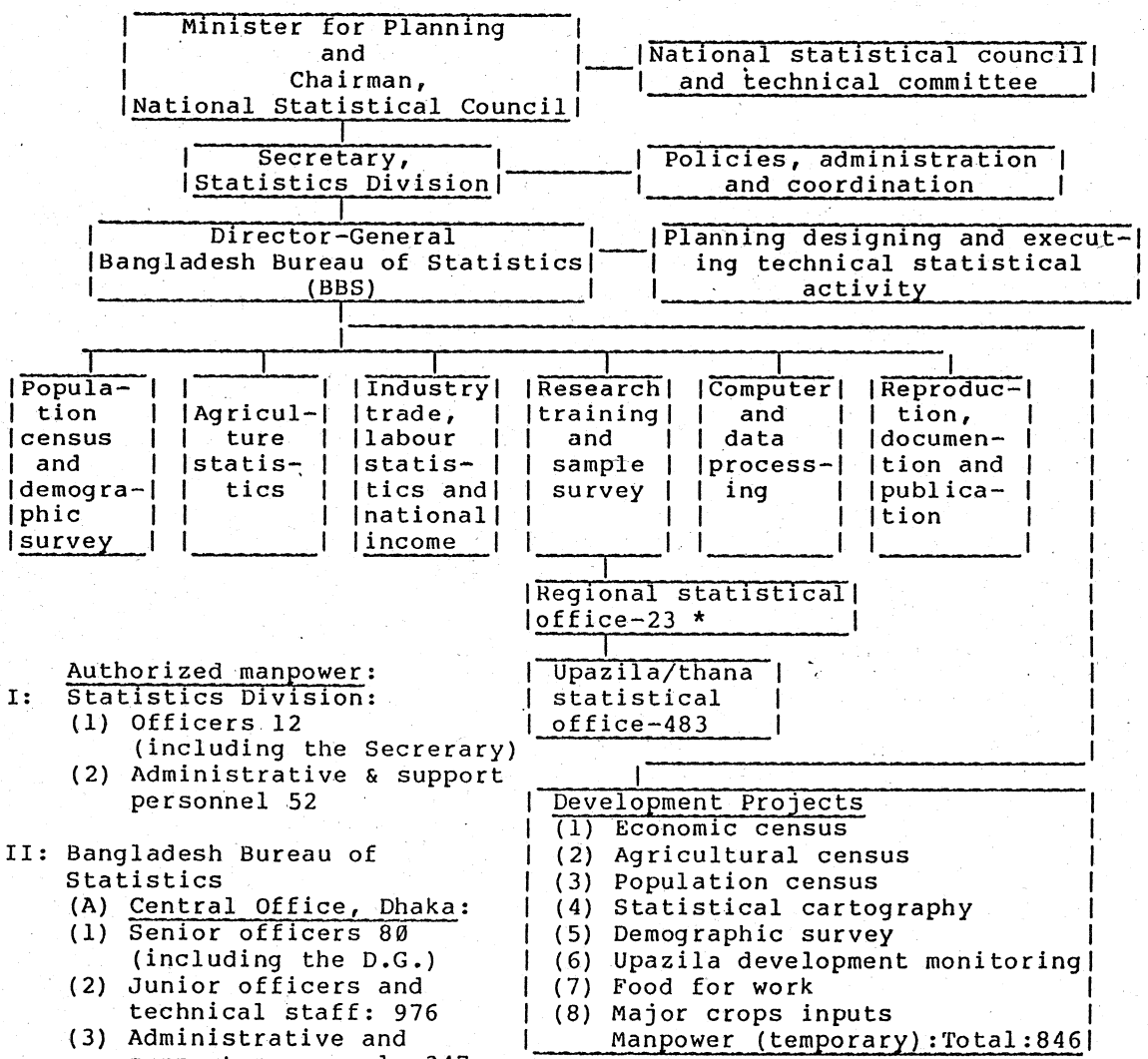
Field level data collection:

For data collection the Bureau has field offices located in 23 regional headquarters and 483 upazila/thana headquarters of the country. These field offices conduct routine and regular investigations as well as census and survey data collection.

The Director General of the Bureau is assisted by Directors and Joint Directors, each of whom manage programmes of statistical activities of a separate wing or project. At field level, regional statistical officers and upazila statistical officers are in-charge of offices in regions and upazilas/thanas. Total authorised regular manpower of BBS is 3556, amongst them 103 are senior officers, 2941 junior officers and technical staff and 512 administrative and support personnel. Of these, 1403 officers and staff work in the central offices in Dhaka and the remaining in field offices. A proposal is, however, under consideration for further increasing Bureau's regional offices to 64.

Adequate budget appropriation is made available for carrying out all regular activities of the Bureau. Provisions from development budget are made to supplement revenue funding resources to implement programmes of census undertaking and the ad-hoc surveys on special topics or of immediate priorities. Census and survey projects, now on-going with supplementory development budget funding support, are as many as eight. For these projects, temporary manpower input, besides other inputs, is provided to cover implementation periods of the projects.

The organizational set-up of the national official statistical system in shown below:



Authorized manpower:

I: Statistics Division:
(1) Officers 12 (including the Secrerary)
(2) Administrative & support personnel 52

II: Bangladesh Bureau of Statistics
(A) Central Office, Dhaka:
(1) Senior officers 80 (including the D.G.)
(2) Junior officers and technical staff: 976
(3) Administrative and support personnel: 347

(B) Field Offices:
(1) Senior officers 23
(2) Junior officers and technical staff: 1965
(3) Administrative and support personnel: 165

Total : 3620 **

* The number will increase to 64 with setting-up of offices in all new districts.

** The number will increase after offices in new districts are set-up.

B: STATISTICAL ACTIVITIES AND PRIORITIES

Capability of the national statistical agency, resource availability, and users' demands have guided planning of activities. BBS organizational and management efficiency typifies its capability of undertaking all statistical activities contributing to production of comprehensive socio-demographic and economic data base.

This capability of the Bureau, backstopped by funding provisions and interactions with users, has determined priorities of statistical activities. For all regular statistical programmes, financing has been available through normal budgetary allocations and has made it possible to meet all regular priority data needs of planners, policy makers and rsearchers, and construct complete annual national accounts of the country by sectors and subsectors.

I. Regular surveys:

The regular statistical programmes implemented by the Bureau cover (1) current agriculture statistics (2) demographic estimates (3) industrial statistics (4) transport and trade statistics (5) prices and wages (6) household income and expenditure (7) labour force and (8) national accounts.

(a) Current agricultural statistics:

Current agriculture statistics relate to crop estimates, weather reports, land utilization, irrigation, agricultural labour wages, prices of crops and inputs, and crop damages. All economically important crops grown in the country are included in the crop estimation programme. More than 100 crop estimates are prepared and published every year in respect of area, yield rate and production. Weather and crop reports contain data on rainfall and agricultural labour wages as well as such statistical information as crops conditions and their harvests and availability of draught power. Land utilizatin statistics show classifications of total land area into (1) land not available for cultivation (2) forest (3) culturable waste (4) current fallow (5) single, double, tripple, net, and total cropped area and (6) cropping intensity.

Farm gate prices, whole sale prices and retail prices of products as well as price paid by farmers for inputs are collected and published every month. Crop damages are estimated as and when natural calamities like floods, hailstorms and cyclones hit crops and relate to both area and production.

(b) Demographic statistics:

Data with regard to all vital events such as birth, death, marriage, divorce and migration are compiled yearly. The survey procedure combines both daily registration of events and retrospective interviewing. Estimates are provided for various vital events including population growth rate, CBR, CDR, TFR, etc.

(c) Industrial statistics:

A census of manufacturing industry is conducted annually to provide data pertaining to the industry sector and covers all industrial establishments employing 10 workers or more. A programme of collection in respect of quantities and values of manufactures turned out by major industrial establishments is carried out every month. Such data are used for preparing quantity and value indices. Both periodic as well as annual reports are published.

(d) Transport and trade statistics:

For organized land, sea and air transportation, administrative records constitute primary sources of transport statistics. Data from such sources are collected every month.

Foreign trade statistics are compiled from customs documents. These documents are collected daily from all sea and land customs stations and foreign post offices of the country.

(e) Price and wages:

Wholesale and retail prices of agricultural and industrial commodities, land prices, construction materials prices, and house rents are collected on weekly, fortnighely, monthly, and annual basis. These price data form basis for constructing costs of living indices. Wage indices are prepared on a monthly basis.

(f) Household expenditure and income:

Household survey is conducted to collect data on economic condition, consumption, expenditure and income of selected households. Data are collected by adopting two methods. Daily diary method is used for recording daily food and beverage consumption and survey on expenditures on selected non-food durables and annual income of households. The survey data are used to estimate (1) food-calorie and protein intake (2) expenditure and income and (3) asset aquisition. Data are analysed to estimate levels of welfare of different segments of the population.

As an add-on-module to the household survey programme, a nationwide sample survey on child nutrition status was conducted in 1985-86, to assess nutritional status of children in the age group 6 to 71 months. Data were collected on quarterly basis with regard to three anthropometric measures i.e. height, weight, and mid-upper-armcircumference. These measures were analysed for determining nutrition status. The survey is being repeated in the current year.

(g) Labour force:

A labour force survey is done every year to collect data on labour force characteristics such as (1) labour force growth rate (2) participation rate (3) activity rate (4) employment, unemployment and underemployment rates (5) hours worked and incomes (6) child labour force and (7) unpaid family labour force.

(h) National income:

Both gross national product (GNP) and gross domestic product (GDP) are estimated in current as well as constant prices on an annual basis. Mainly production method, supplemented where necessary with expenditure method, is followed in national accounts estimation system.

II. Ad-hoc surveys and censuses:

A number of ad-hoc surveys and censuses have also been priority statistical activities of BBS. These surveys have been taken up to provide improved data base for national accounts and to meet specific data needs of planners and policy makers. Population censuses have been carried out every decade for over a century. In 1986, an economic census was done nationwide for the first time to assess the non-agricultural structure and composition of the economy in detail.

A) Ad-hoc surveys:

(a) Non-crop statistics:

Large scale sample surveys were done during the eighties to cover the livestock, fisheries, forestry and rural credit sectors.

A livestock survey (1984) was done to estimate (1) cattle, buffalo, sheep, goat, and poultry (2) productions of meat and milk (3) perchase, sale, slaughter and changes in stock (4) births and deaths and (5) cattle and baffalo used as draught animals.

The fishery survey (1982-1983) produced data on pond area, other water area, physical condition in cluding turbidity, silting, weed formation, water depth, seasonal water availability, ownership, nature of exploitiation and annual fish catch by variety.

All reserved forests are managed by the Chief Conservator of Forests. He collects data with regard to the forestry resource for administrative use. Farm forestry is by far the most important source supplying fuel wood and construction materials for rural population. A survey of farm forestry (1988) collected data relating to this resource.

A nation-wide survey on rural credit was undertaken (1987) to provide data on rural credit supply by source and assess requirements and use by type of economic activities.

(b) Small and cottage industries:

Two surveys covering small and cottage industry establishments were carried out some years ago, one in 1970 and the other in 1976. A new survey of the sub-sector will be mounted from July 1989. For this a complete frame has been developed as part of economic census of 1986.

All these reports are available in print.

(c) Construction:

Data on construction activity have been usually obtained from administrative records of selected construction farms. In order to improve data base of the subsector,a survey will be undertaken shortly using frame prepared as part of economic census, 1986.

(d) Distributive trade and services:

Like construction activity, data on distributive trades and services were not covered in a systematic survey by the BBS. A comprehensive survey is now underway covering this sub-sector.

(B) Censuses:

(a) Population census:

The last decennial census of population was taken in March 1981. The full-count provided data relating to number, growth of population, urbanisation, migration, age-sex composition, marital status, religion,literacy, household and houseing characteristics, economic participation, and also size and other characteristics of tribal population. From a subsequent sample census, more detailed socio-economic data were obtained. These related to 12 household and 44 socio-economic/demographic characteristics. The next census is planned in March 1991.

(b) Agriculture census:

In 1983-84 a census of agriculture was conducted. A full count census with a short questionnaire and a susequant sample survey with a more detailed questionnaire was done.

(c) Economic census:

To remove critical gaps in economic statistics and improve national income accounting system, the economic census was conducted in 1986. The census has generated bench-mark data of all types of establishments and made available frames being used for follow-on surveys in areas such as small and cottage industires, distributive trades and services and construction industry. A physical disability module was added to this census and yielded age, sex and area of residence related data on various types of physical disability.

III. Special surveys:

(a) Upazila development monitoring survey:

The survey has been taken up for providing comprehensive socioeconomic and demographic statistics at upazila level. These will be used by upazila administration in formulating, monitoring and evaluating community-tailored development plans and projects. The survey programme is designed to cover 80 selected upazilas over a period of two years and is also designed to provide regional as well as national indicators.

(b) Food-for-work, vulnerable group-feeding, and test-relief evaluation survey:

Government has been implementing every year food-for-work, vulnerable groups-feeding, and test-relief project. All these operations are exclusively meant for low-income target groups and aim at offering them employment during slack seasons and making food available during crisis periods.

(c) Major crop input utilisation survey:

Fertilizers, irrigation equipment, improved seeds and pesticides are distributed and sold across the country. Data about distributions and sales are available from records maintained by dealers. Actual utilisation of these inputs on farm are not fully known. This survey programme will investigate farm operations and use and utility of modern inputs as well as labour and animal draught power.

IV. Training:

Training is a continuing activity for BBS personnel and is accorded priority in the national statistical system. Skills of working statisticians are maintained at the desired level of perfection through training. Inservice trainings are organised regularly in areas of field data collection techniques and data processing. Before each census or survey, inservice training is imparted to all those associated therein. Specialised training abroad have also been suported and organised on a regular basis. These trainings have been, however, selective and made available to able and promising working statisticians.

Trainings under regional cooperation plan with the Statistical Institute for Asia and the Pacific have been a regular feature of inservice training. Regional co-operation sponsored trainings have been organised in areas of agriculture statistics, statistical management and operation, training of trainers and non-sampling errors. Another training course in national accounting system has been planned this year in co-operation with SIAP.

We have also received valuable assistance from USAID and UNDP in this regard on a continual basis.

V. Data gaps and major priorities:

On-going regular and ad-hoc surveys and programmes of censuses are sources of improved and comprehensive data base for national accounts estimation, for formulating and evaluting development plans and projects and for framing national socio-economic policies. Other ad-hoc surveys to be undertaken soon for generating much needed economic statistics will further improve present data base. Further more, a range of statistics is collected and collated from secondary sources, mainly administrative, for meeting particular data needs of their primary users. Major data

gaps however remain in areas wherein new surveys need be planned and executed. These are mainly in sectors belonging to unorganised domain of small scale economic activities -a sector often ignored but collectively important to the economy.

Very little is also known about morbidity, public health, non-monetized part of agriculture sector, age-old and traditional rural transportation, non-commercial energy use, informal trading activity like peddling, in-family women labour participation in productive activities, income distribution,poverty and nutrition levels, regional accounts and other unorganised activities creating employment and income. With adequate resources being available, these areas will be gradually covered. Priorities of the surveys will be determined by the availability of resources. BBS has continued to focus attention to the deficiencies in knowledge and continuously tries to attract resources for these activities.

The Cook Islands Statistics Office was established in 1965 following the attainment of the internal self-governing status of the nation with free association with New Zealand.

In 1966 an enactment was passed by the Cook Islands Parliament which is referred to as the "Statistics Act 1966".

The Act is divided into the following parts:

Part I:	General Statistics.
Part II:	Census of Population.
Part III:	Offences and Penalties.
Part IV:	Miscellaneous.

Part I of the Act relates to the operation of the Statistics Office which provides the schedules of statistics to be collected, compiled, analyzed, abstracted and published for the following statistics:

a. Population, Vital Statistics, Health and Morbidity.
b. Immigration and Emigration.
c. Housing, Building and Construction.
d. Justice and Penal Institutions.
e. Social and Education matters.
f. Local Government.
g. Wages, Hours worked and Employment.
h. Income, Earnings and Taxation.
i. Family budget and Consumer surveys.
j. Land Tenure, Occupation and Rent Conditions.
k. Primary and Secondary Industrial production and distribution of goods and stocks.
l. Foreign and Internal Trade.
m. Price indexes.
n. National Income, Balance of Payments and sector accounts.
o. Transport and Communication.
p. Banking, Finance and Insurance.
q. Other matters as prescribed.

The foregoing activities included in the Act provide the basis on which the Statistics Office functions are oriented.

The activities are centralized due to several factors. The geographical dispersion of the islands over some 2 million square kilometres of ocean pose problems of transport and communication whilst the smaller population in most of the outer islands contributes to other levels of problems.

On each of the outer inhabited islands the Chief Administration Officer is the local point of contact. In most statistical collections, however, either an agent is sometimes appointed from within the Public Service or from the village to carry out specific tasks. This type of arrangement poses some problems on the quality and timeliness of the data.

Another arrangement is to sent out trained staff to conduct interviews, especially in surveys such as employment and earnings and other complex surveys.

The planning of statistical activities and the determining of priorities is largely influenced by government policies either included in the Development Plan and or party politics.

The Minister in Charge of Statistics (usually the Prime Minister who is also the Minister of Finance) is involved with the Statistician in determining the priorities for the Statistics Office. This was the case in the previous administration.

International Relationships.

Our obligation to international organizations and agencies in statistical matters continues to be serviced. At times the need of such services increases the work load of the office, in particular when and if data is not available or the requirements are much too detailed.

In an island nation with a small dispersed population the cultural arrangements at times become sensitive and government polices of the day change almost daily due to immigration movement.

Economic activities in some sectors are small in number and it is difficult to provide data without revealing the identity of the informant and thus breaching confidentiality. Often in this type of situation the data is aggregated with other categories.

Infrastructure.

The infrastructure of the statistical services is based on the provisions of the Statistics Act.

Currently in operation are Administration, Data Processing, Publications, Economic Surveys and Demographic Statistics being the major division in the set-up. Recently the Micro computing division was established to cater for the automatic processing of data.

Dissemination and Marketing of Statistical Products.

Ever since the establishment of the Statistics Office the circulation of statistical products are to primarily the government, government departments and offices as well as to selected organizations in the private sector. The distribution has been updated to include international agencies and selected universities on a complimentary arrangement.

From time to time the local media is extensively patronized. For national surveys, local organizations including religious orders are used for the advertising, marketing and distribution of statistical products . It is noted that this type of arrangement encourages the community to appreciate the data derived from these surveys.

Impact of Technology on Statistical Services.

In order to promote the efficiency of statistical services, especially in small statistics offices, it is important that technology innovation be accepted and such changes should be properly prepared to secure not only accurate results but timely output as well.

It is important that the new technology, viz., computer processing at the micro level, be encouraged and developed in such a fashion as to maximize participation by the national staff. The training opportunities for national staff and associated technical assistance must be immediately available to ensure the efficient and effective introduction of technical change. Both factors must not be overlooked at the national and international levels.

Human Resources Development for Statistical Services.

Over the years the statistics staff development programme has been enhanced both at national and international institutes. This programme relies heavily on external financial assistance from such sources as the United Nations, the South Pacific Commission and the Asian Development Bank.

The International Statistics Programme Centre (ISPC) of the Bureau of Census U.S.A.; Statistical Institute for Asia and the Pacific Tokyo, Japan (SIAP); Internal Institute for Population Science Bombay, India (IIPS), have provided invaluable input to such programmes.

Bi-lateral aid arrangements for short term on-the-job training continues to be effective, in particular to increase the staff knowledge in the application of statistical methodology and procedures.

Specialized courses organized and funded through the South Pacific Commission continues to be very effective and it is recommended that this practice continues.

Role of Statistical Offices in National Information Systems.

The Cook Islands Statistics Office continues to provide the background information necessary to formulate and assess government policies and initiatives. The office however, adopts a low key approach to the marketing of statistical products to other organizations and interested groups. From time to time some releases of significant value are issued through the media for the community at large; for example, Population distribution, Cost of Living Indexes, Income and Taxation.

The introduction of micro-computers for data processing has increased the management task of ensuring that staff are provided with the ability to handle such new technology. The long term objective of computer training in management and programming is very vital regardless of fund constraint.

Internal and in-house training of staff in all phases of statistical activities continues to be one of the top priorities of the Statistics Office. Part time extension studies through the University of the South Pacific is encouraged by payment of tuition and course fees from the budget and allowing time for course work during official hours.

The current administration's information policy stresses a wider range of dissemination practices using the media in addition to the current statistical abstracts and series released. A review of the publication and dissemination programme is planned for the very near future addressing the release practices of statistical publications at the national level.

Introduction

1. Since the end of World War II, nearly all nations have made a historically unprecedented effort to develop statistical information. Older developed countries expanded the size of their statistical agencies to enormous proportions; and in newly independent countries, the creation of statistical bureaus was often - and rightly - regarded as one of the founding acts of national sovereignty.

France has a very old statistical tradition, which according to some historians goes back to Louis XIV's minister Vauban (1633-1707) or Louis XVI's minister Necker (1732-1804). Yet, before 1939, France's statistical information system was limited to a few censuses and birth, marriage and death records (vital registration statistics). France did not undertake a major effort until 1946, with the founding of the National Institute for Statistics and Economic Studies (Institut National de la Statistique et des Études Economiques: INSEE). In fact, this development was effected in several phases, too long to describe here.

2. Nevertheless, there is a constant feature in the growth of statistical systems. In virtually all countries, whatever their political or economic regime, most of the national statistical information system is government-run. This is hardly surprising, and can be explained by:

- financial reasons: statistics require long, heavy investments that cannot yield direct financial returns; it is therefore understandable that the government should fund the system, just as, for example, it finances the educational system;

- administrative and technical reasons: the gathering and distribution of statistical information presuppose the application of conceptual frameworks, accounting principles and nomenclatures that fit in with the government's standardization and regulatory tasks; they also presuppose the enactment of laws and regulations to allow the information to be effectively gathered (such as laws prescribing the obligation to reply) or to ensure that its use is subjected to

Abstract

This paper examines the French socio-economic information system - or, more accurately, systems - with special emphasis on their main differences with their equivalents in other market-economy countries. In France, the systems consist of four basic parts (see Fig. 1):

1. A data-gathering and production subsystem.
2. An economic analysis subsystem (including forecasts and macroeconomic modeling).
3. An information-dissemination subsystem.
4. A feedback subsystem for evaluating (1)-(3) and determining user needs.

Compared with other market-economy countries, the French systems are probably:

- more integrated, under the impetus of a central body, the Institut National de la Statistique et des Etudes Economiques (INSEE);
- more decentralized as regards subsystems (1) and (3), thereby ensuring - at least in theory - a better fit with the needs of users, especially of officials responsible for macroeconomic policy;
- better geared to data dissemination through the network of "Regional Economic Observatories" (OERs);
- better represented geographically at both national and regional levels.

These unquestionable strengths sometimes generate weaknesses, such as a difficulty in assessing exactly how private enterprise can help improve information dissemination.

certain rules (in particular, confidentiality); lastly, government-department files provide a valuable source of statistical information;

- reasons linked to the actual use of the data: governments are still among the main users of statistical information.

3. How can one make better, wider use of the enormous mass of data produced by statisticians? The issue has been debated for many years. First, because the size of the investments involved justifies the maximization of what one might call the data's "social utility" - as a substitute for the wholly unattainable and illusory goal of financial profitability. Second, because the modern economy requires increasingly detailed and varied information.

In particular, French firms make inadequate use of economic information: this is because they are unaware of it, because they fail to devote the time and specialist work required to obtain it, or because they regard the available information - rightly or wrongly - as not being the one they need. In discussing the needs of businesses, one sometimes forgets that they constitute anything but a homogeneous market. The needs of large corporations, which often operate in-house economic analysis departments, are not those of smaller firms. Whatever their size, though, all businesses want to find out more about their markets - that is, to obtain information on the changes and pattern of supply (output, imports, inventory changes), demand (exports, government demand, household demand, intermediate demand) and profitability determinants (input prices, wages, exchange rates, monetary and financial data). The companies best equipped to handle external economic information want to incorporate these parameters - together with in-house data - into models. They also want information about trends in the social environment, aggregate economic forecasts, and even the economic and social structure of specific geographic areas in order to locate more efficiently. Naturally, the information they seek concerns not only France, but the international setting and France's major trading partners.

In most cases, this vast public's only sources of information are intermediaries such as the general-circulation or specialized press,

trade journals, research consultancies and chambers of commerce. This is hardly surprising. The type of information economic agents require is as varied as the nature of their concerns and tasks. It is therefore very hard to provide all agents with information in exactly the form they would like.

4. Such are the challenges facing France in its continuing drive to build its socio-economic information system - or, more accurately, systems. To be sure, socio-economic information is not limited to statistical data. Even when used with maximum efficiency, these are only part of the information needed by an economic agent, particularly a firm. The latter will first use available in-house information (such as management charts), followed by "commercial" information (reports by its representatives, economic press, information on markets and business opportunities, and so on) and financial information.

A discussion of all aspects of socio-economic information would take us beyond the scope of this paper, which we have therefore limited to statistical information.

Outline

5. In the first - and longer - part, we shall describe and analyze the French socio-economic statistical information system in its four basic components (see Fig. 1):

- The data-gathering and production subsystem.
- The economic analysis subsystem (including forecasts and macroeconomic modeling).
- The information-dissemination subsystem.
- The feedback subsystem for evaluating (1)-(3) and determining user needs.

In the second part, we shall discuss the system's strengths and weaknesses.

Distinctive features of the French statistical information system

6. Before introducing each of the four subsystems in sequence, it is important to describe the system in general, which exhibits a number of distinctive, original features.

A country's statistical system may be organized in different ways, essentially depending on the deliberate or historically-determined choice between centralization and decentralization. If the statistical data are compiled by a single central agency, the system is centralized. If each specialized government department is responsible for compiling the data on its respective field (such as agriculture or industry), the system is decentralized. Typically, the chosen system results from a compromise between the two extremes, with one predominating. For example, centralization prevails in Belgium and the USSR, decentralization in the USA and the UK.

Decentralization has its advantages. When a ministry operates a specialized in-house statistical office, it is easier for the latter than for an outside body to make statistical use of documents initially designed and compiled for administrative purposes. It is also easier for such offices to obtain questionnaire replies from individuals and organizations that maintain regular contacts with the government department to which the office belongs. Lastly, there is a better liaison between the offices that study the information gathered and governmental decision-making centers.

On the other hand, decentralization has its drawbacks: data duplication; gaps because the producer offices may be exclusively concerned to satisfy their own needs without extracting information of use to third parties from their available sources; inconsistencies generated by the use of different methods, particularly classifications.

The French system is fairly decentralized. Specialized statistical offices exist in many ministries (such as Labor, Agriculture, Education and Industry), governmental and para-statal organizations such as the Banque de France, Electricité de France (utility) and SNCF

(railroad authority), and private organizations (including chambers of commerce and trade associations). Nevertheless, the role of the central office - the Institut National de la Statistique et des Etudes Economiques (INSEE) - both as statistics producer and main coordinating body is much wider than that of its counterparts in countries with decentralized systems.

In 1988. the total number of INSEE and ministry staff chiefly employed in statistics gathering and analysis exceeded 10,000, of whom about 7,000 at the INSEE. For the past several years, however, owing to the expansion of ministerial statistics offices, the INSEE's relative importance in the system has been diminishing, and it is likely to continue doing so. In addition, on the fringes of the statistical system proper, other institutions of a primarily administrative or business character (social security funds, banks, insurance corporations) possess a mass of specialized data that is still under-utilized.

7. Another feature of the French system is the INSEE's role in analysis and forecasting. In some countries, statistics offices merely produce quantified data for use and analysis by other bodies such as government and private forecasting groups and planning departments. In France, the INSEE analyzes the data it compiles, prepares the national accounts in cooperation with other government departments, monitors the business cycle and issues forecasts.

This key feature of the French statistical system has few equivalents elsewhere. In particular, other countries' forecasting agencies are nearly always distinct from official statistical bureaus. Nevertheless, it should be noted that the INSEE has no monopoly over the areas covered by its analyses and forecasts. Many other bodies, governmental or private, are qualified to deal with them. Indeed, such entities are multiplying.

8. A final important feature of the INSEE is its regional structure, comprising local offices in all twenty-two regions of mainland ("metropolitan") France. The regional branches serve as basic-information gathering units. They also analyze and distribute

socio-economic statistical information at regional level. There are four other offices in French overseas départements (Guadeloupe, Guiana, Martinique and La Réunion). Many other government statistical departments maintain regional offices.

Data gathering and processing subsystem

9. The prime data sources are obviously the operations carried out for purely statistical purposes. These include censuses, defined as very large-scale operations covering the entire population set studied (such as inhabitants, dwellings or manufacturing, agricultural or retailing firms). A second category is surveys conducted on a representative sample of the population studied. Using mathematical statistics methods, such surveys yield results that apply to the entire population. It is beyond the scope of this paper to examine the advantages and drawbacks of these two statistical investigation methods, whose cost is very often a discriminant variable: the budget for the 1990 national population and housing census is nearly one billion francs, whereas surveys do not exceed a few million francs. It should also be noted that the INSEE devotes large resources to monitoring prices, particularly of consumer products: 160,000 prices are recorded monthly, covering more than 1,000 goods classified under 295 expenditure items.

10. Another important source of statistical information is the data gathered for non-statistical purposes. Most income data, for instance, are derived from tax returns and forms filed with government social-security, medical-insurance and related agencies.

We can, however, carry our investigations further. Let us take the case of a business firm. We can obtain a variety of statistically useful information about it from sources such as statistical surveys, official documents (tax returns) and files. If we have taken the trouble to refer to the firm consistently by a single identification number, we will be able to merge the information from all the sources into a single computer file.

An example of such an operation is the Unified Corporate Statistics System (Système Unifié de Statistiques d'Entreprise: SUSE) handled by

the INSEE. Data processing is used to merge information on individual firms derived from corporate tax returns and annual statistical business surveys. The results so far have been mainly used in national accounting, but their broader dissemination will diversify their applications in the future.

As regards individuals, the INSEE has applied a method based on the same principles to carry out a study on mortality differences between social categories. The conditions in which the study was performed were virtually unique in the world. One could list many other examples. It is easy to grasp the tremendous advances that could be achieved by applying data-merger techniques. The INSEE, of course, uses these solely for general-information purposes, in compliance with the law of 6 January 1978 on "data processing, data files and civil liberties," and under the supervision of the National Commission on Data Processing and Civil Liberties (Commission Nationale de l'Informatique et des Libertés: CNIL).

11. A special source of official data is government-managed files or lists of private individuals (such as taxpayers and persons registered with social-security agencies), firms (manufacturing, retailing, or other) and goods (for example, automobiles). Such data can be used for statistical ends in addition to their original purpose.

By analyzing the records that compose a file at a given moment, we can obtain a statistical inventory of the population concerned; file-update documents can yield statistics on population changes. A file can also serve as a basis to define a survey sample of the population to be studied.

The INSEE manages several files and lists, of which the following are used for statistical applications:

- a list of firms and places of business (SIRENE);
- a file of major places of business;
- a computer list of professional activities.

The INSEE also manages the national list of personal identification numbers and the election roll, neither of which is used for direct statistical applications.

12. Compared with most foreign countries, the use of information from government sources therefore appears to be older and more widespread in France. There are two main reasons for this. First, the INSEE is part of the Finance Ministry, which has facilitated the Institute's access to tax sources. Second, the decentralization of the statistical system has led to the establishment of well-placed specialized offices in other ministries.

The use of statistical information from government sources has gained ground in other countries as well, particularly the USA. However, the INSEE's access to the tax returns of named individual firms remains a highly productive exception. The periodic analysis of a sample of personal taxpayer returns (the "tax income survey") - sometimes coupled with anonymous replies to a specialized statistical survey - seems to be another original approach. Similarly, we know of no equivalents of the linkage of corporate tax-returns data with the INSEE annual business survey.

By giving statisticians access to officially restricted data, the law of 23 December 1986 should allow further statistical progress, under the supervision of the CNIL.

The only area where French practice seems well behind that of other countries - such as the native English-speaking nations - is the processing of data from estate-duty returns. This is done regularly in other countries but only sporadically in France, owing to inadequate facilities in the general tax administration.

France's generally more widespread use of government data is offset by the smaller share of exhaustive censuses, which for the past quarter century have been confined to two fields: the population and agriculture. In other areas such as manufacturing, trade and services, the French have preferred to set up a smaller, more frequently updated system of annual "structural" surveys, in which all large firms are covered but smaller firms are only sampled. The surveys are based on the list of firms and places of business (SIRENE) mentioned earlier.

13. A final distinctive feature of the French system - too long to discuss here - is the approach used to investigate economic agents:

both for firms and households, the analysis is very heavily oriented toward socio-economic behavior.

14. To conclude our description of the first subsystem, the two main statistics-gathering methods offer opposing advantages and drawbacks:

- compilations undertaken for purely statistical purposes, specially designed by statisticians to study specific issues, provide better answers to the needs expressed; their cost, however, may seem high as their only aim is to furnish statistics;

- on the other hand, statistics from government sources are less costly, for the information-gathering is a subproduct of administrative work that would have been performed anyway, and it requires no new investigations among the population concerned; but the administrative rules may be such that the statistics established do not correspond exactly to the realities we want to observe.

Economic analysis subsystem

15. Once compiled and centralized, statistical data are examined by specialized departments and the INSEE using methods such as time-series econometrics and data analysis. The INSEE is also responsible for broader economic analyses. The most important of these are the national accounts, which seek to provide a complete, quantitative, statistical picture of all the flows within the French economy as well as between France and the rest of the world. This economic "scale model" comprises a set of accounting tables in varying degrees of detail.

The INSEE is responsible for compiling the national accounts and submitting them to the French Commission for National Accounts and Economic Forecasting (Commission des Comptes et Budgets Economiques de la Nation). The Institute prepares household and enterprise accounts as well as the "input-output" table. General government accounts, financial transaction tables, and figures for financial institutions and foreign trade are compiled by other offices at the Finance

Ministry and the Banque de France. From these accounts, the INSEE draws up "integrated economic accounts."

Detailed accounts are established for certain economic sectors such as agriculture, trade and transportation, and are submitted to sector-specific accounts commissions.

16. To describe short-term economic developments in a framework consistent with the annual national accounts, the INSEE regularly compiles quarterly accounts. Initial quarterly estimates are released during the second month after the end of the quarter. The accounts summarize short-term economic-change indicators and play an important role in short-term analysis and forecasting.

The INSEE also publishes regional accounts concerning local firms, households and government agencies.

The INSEE compiles "satellite" accounts for fields of major social relevance such as health, education, welfare, research and tourism. These accounts form part of the enlarged national-accounting system (Système Elargi de Comptabilité Nationale: SECN), introduced to provide greater compliance with international practice.

17. The Institute prepares many other studies on an ad-hoc basis to meet specific government requirements and to serve for decision-making processes such as the national economic Plan.

Naturally, the INSEE has no monopoly in economic analysis, even within the French government. The Finance Ministry's Forecasting Division (Direction de la Prévision: DP), the National Institute for Demographic Studies (Institut National d'Etudes Démographiques: INED), the Research Center for Analysis and Observation of Living Conditions (Centre de Recherche pour l'Etude et l'Observation des Conditions de Vie: CREDOC), the Center for Analysis of Incomes and Costs (Centre d'Etudes des Revenus et des Coûts: CERC) and the Center for Studies and Research on Professional Qualifications (Centre d'Etudes de Recherche sur les Qualifications: CEREQ) are just of few of the many important public bodies engaged in such work.

18. The studies described earlier allow retrospective analyses that improve our knowledge of economic and social mechanisms. Such analyses serve in turn as a basis for forecasts, generally using an econometric model. This is especially the case for projections on national accounts performed with macroeconomic models. By applying a large number of equations and variables, the models give a simplified picture of the entire economy, permitting the simultaneous analysis of a much higher number of variables than the human mind could handle. We can use such "scale models" to explore possible economic scenarios and the impact of policy alternatives.

The chief macroeconomic models prepared and used by the INSEE are:

- DMS (Dynamique Multisectoriel: "dynamic multi-industry"), an annual-path model comprising 1,900 equations and describing the economy over the coming five to eight years. Notable applications include the economic Plan and the sliding multi-year forecasts by the Bureau d'Informations et de Prévisions Economiques (BIPE) (Economic Information and Forecasting Office), a private unit.

- PROPAGE (Projections Pluri-Annuelles Glissantes: sliding multi-year projections). The applications of this 5,000-equation model are similar to those of the DMS model, but it is based on a more detailed description of manufacturing industries ("input-output table" projection).

- METRIC (Modèle Economique Trimestriel de la Conjoncture: quarterly business-cycle economic model). This 900-equation model is based on the quarterly accounts. It serves in particular to analyze the business cycle and prepare short-term forecasts. Its typical horizon is three years.

Responsibility for government macroeconomic projections is shared between the INSEE, the Economic Plan Commission (Commissariat Général du Plan) and the Direction de la Prévision. The government, however, has no monopoly in the area. As is already the case in other countries, private economic forecasting services are rapidly expanding in France. Apart from the BIPE, which works with the INSEE on the

sliding forecasts mentioned earlier, suppliers include IPECODE, OFCE, IRES and various banks.

19. Regional development and planning priorities, coupled with organizational changes in local government and politics, have led the INSEE to upgrade its regional data-gathering offices into full-scale research units specialized in local issues. This coincided with the development of regional entities in all economic sectors. The trend is bound to gather pace as the government continues to implement its policy of administrative decentralization, decided on in 1982.

The INSEE's local research units cover not only the region as a whole but, in some cases, infra-regional areas as well, such as départements, new towns, fast-growing areas, urban units, rural or semi-rural areas and employment-development zones.

20. One of the original features of the French statistical system is therefore the close interaction between the two subsystems described above within the central statistical agency. Another distinctive feature is that - although since 1971 France has achieved a high convergence with standardized international accounting schemes - French statistical offices are able to offer more detailed and better integrated accounts. For example, France regularly produces a relatively detailed analysis of output as well as of flows of goods and services, whereas the USA and UK typically publish aggregate balances only. This has allowed France to create sector-specific national accounts commissions. The French statistical system will shortly be integrating accounts of individual and corporate tangible assets (balance sheets), a procedure that few countries are able to undertake at present. By processing corporate data from accounting sources, France has compiled mesoeconomic accounts by industry and interlinked them with microeconomic data.

To complement what other countries usually refer to as national accounts, France has designed the other tools discussed earlier: the intermediate systems and "satellite" accounts patterned on the general accounting system. France has also compiled initial - and still very fragmentary - accounts for its natural resources, another task that has required the development of novel methods.

Information-dissemination subsystem

21. The INSEE devotes nearly 700 people and 10% of its budget to developing its information-dissemination subsystem. In 1967, with the aid of the French Industrial Development Agency (Délégation à l'Aménagement du Territoire et à l'Action Régionale: DATAR), the INSEE set up the first two Regional Economic Observatories (Observatoires Economiques Régionaux: OERs). Today, each of the 22 French regions has its OER, which forms one of the departments of the local INSEE office. There is also an OER in La Réunion.

To meet user needs, the OERs store large databases in a wide variety of fields including demography, health, employment, corporate locations and type of activity, foreign trade, and economic figures. The information is supplied in one of the following forms:

- publications issued by the INSEE at national or regional level (OERs are responsible for regional INSEE publications) or by other departments and agencies;

- statistical tables and findings of unpublished research: the tables are stored on paper or, more compactly, on microfiche or microfilm.

These documents may be consulted at the Observatories, which also sell INSEE publications and photocopies of unpublished tables and findings. Because of their links to local information sources and their integration into the INSEE data communications network, the 22 OERs form a full-scale dissemination system for economic and social information. With their extensive contacts in the local socio-economic environment, the OERs have a clear perception of real-world information needs.

22. Advances in information-technology have introduced new dissemination methods. Computer files containing survey and census data - as well as the statistical tables derived from them - can now be accessed on request. In particular, the SIRENE business directory can be used to generate lists of entities that fit selected criteria

such as type of activity and location. Subject to certain conditions, permission may be granted for the direct use of such files. Information is becoming available with unprecedented flexibility on personal-computer diskettes, while feasibility studies are being performed concerning CD-ROM disks.

23. However, despite the sizable resources deployed for this purpose, much remains to be done. Clearly, the establishment of a statistical database system can improve matters. By broadening the scope of applications, databases can adapt to the widely differing needs of a diversified customer base, while allowing a more decentralized use of economic and social information. Although it began to implement such a policy nearly five years ago, the INSEE still has a long way to go. This is understandable. To create a database on a given subject, it is not enough to compile the data. More important, one needs to:

- store the data, which are generally produced by different sources with dissimilar means and at variable intervals: the data must be organized for computerized distribution, properly documented, catalogued, inspected and made incorruptible;

- deliver the data to the user either on media such as cassettes, tapes and disks or via one of the many telematic resources now available.

- give users access to a range of computer services (such as data retrieval and handling software, and work areas for introducing user-supplied series) and consultancy services (in statistics, economics, management and other fields).

Database storage is a crucial operation. The decisive factor is that the user is on line with the often large files stored in the base. Quality control must therefore come as close as possible to perfection. The files must be thoroughly organized, updated and consistent. A database would be pointless if the user had to phone the producer during every search to ask about base contents, search procedures and the meaning of the figures obtained. Database storage is therefore a task of industrial proportions, whose complexity is very time-consuming.

The services to be offered to users are inseparable from storage and transport functions. Otherwise, there is a danger of a major gap between the database's potential and the user's ability to exploit it. If support and consultancy services are inadequate, even an experienced user will risk failure the moment the search becomes complex. The danger exists regardless of the database size, the quality of the information content and the breadth of the program library available.

As a direct follow-up to database access, users frequently express a desire for further support in the form of economic, management, marketing and other consultancy services.

In conclusion, the establishment of statistical databases is now possible thanks to the development of data-processing technologies such as telematic networks and database management systems (DBMSs).

24. In its plenary session of 6 January 1982, the French National Council on Statistics (Conseil National de la Statistique) suggested the broad outlines of a policy in this area:

- contribution by all statistical agencies to coordinated projects;
- launching of several large projects and establishment of a structure for coordinating them;
- commercial provision of database services for private users by private or public profit-making information-providers: nevertheless, the Council proposed that the INSEE itself should provide such a service on a non-commercial basis to (1) a broad customer base via its "regional observatories" (OER) network and (2) a select group of about forty public agencies with which the Institute maintains contacts in the course of its routine assignments;
- development of methods for making databases available to non-profit and community organizations;
- build-up of the administrative system responsible for database policy in France.

25. These guidelines are embodied in the INSEE's two major current databases:

- the macroeconomic database (Banque de Données Macroéconomiques: BDM);
- the local database (Banque de Données Locales: BDL).

We should also mention SPHINX, a reference and bibliographical database.

The BDM stores national and international time series describing the business cycle in France and its trading partners, macroeconomic indicators (annual and six-month national accounts, indexes) and trend statistics in areas such as employment, unemployment and foreign trade. The database now contains 250,000 series and is steadily expanding. It is distributed by the GSI-ECO server. The leading world providers of macroeconomic databases, DRI and WEFA, also supply statistics on France.

The BDL's purpose is to offer all the statistical information available at municipal level and - tomorrow - at town district level. At present, it contains nearly 5,000 indicators taken from sources such as general population and agricultural censuses and statistical analyses of the business directory (SIRENE) and tax records. The database is distributed by COREF, a service company specializing in local market research and targeted direct mail promotion.

Feedback (user-needs research) subsystem

26. The INSEE's heavy commitment to its dissemination subsystem has already fostered an awareness of user needs. The close, regular contacts between "producers" and "distributors" within the organization help to ensure that such needs are taken into account. The INSEE's own effort has experienced a "multiplier effect" through the emergence of brokers and intermediaries who acquire rights from the INSEE to use its statistical information. The licensees, such as database servers, redistribute the information to their customers with varying degrees of added value. Through these channels, the INSEE has improved its perception of market demand.

Other, more institutional bodies have been set up to enhance this feedback. Foremost among these is the National Council for Statistical Information (Conseil National de l'Information Statistique: CNIS).

27. The law of 7 June 1951 on statistical need-to-reply requirements, coordination and confidentiality created a Statistical Survey Coordinating Committee, which became the National Statistics Council on 8 December 1972; the latter was turned into the National Council for Statistical Information on 17 July 1984.

The Council is chaired by the Minister of Finance, with the Director-General of the INSEE as vice-chairman. It is composed of representatives of Parliament, the Social and Economic Affairs Council (Conseil Economique et Social), all government ministries, selected government agencies with an overall view of statistical information problems, the main professional and labor organizations, as well as a few dozen qualified individuals chosen for their statistical expertise or in their capacity as statistical-information users. The INSEE acts as the Council's secretariat.

The Council's duty is to promote cooperation between government bodies responsible for statistical work and users. In this capacity, it discusses and gives its opinion on the following issues:

- the general development and annual scheduling of governmental statistical work;

- census and survey programs; use of government administrative data for statistical purposes; the type of information to be extracted from such programs; methods for distributing such information;

- potential improvements in government statistical compilation and distribution methods;

- definition, revision and updating of the main economic and social nomenclatures.

Every year, the Council sets the program for official statistical surveys. The Council's approval of a survey makes it compulsory for individuals and legal entities to respond to the questionnaires, but in exchange it guarantees that replies will remain confidential. The Council also draws up five-year statistical programs as part of the preparatory work on France's economic Plans.

28. Although the Council is the most important forum for discussing the issues linked to statistical-information production and use, there are other institutions where this takes place.

In 1952, France established a Commission for National Accounts and Economic Forecasting (Commission des Comptes et Budgets Economiques de la Nation). Although the Commission is chiefly an economic policy-making body, the preparation of the national accounts helps to coordinate statistics by unifying observation methods (concepts and definitions) and accounting methods, as well as pinpointing areas where statistical knowledge is inadequate. In later years, commissions were established in specific areas including transportation (1957), trade (1963), agriculture (1964), health (1970) and welfare (1979).

More recently, the INSEE created a working party (Conseil des Etudes) reporting to its Director-General, for the purpose of defining needs in this special aspect of the Institute's work.

Lastly, we can mention the National Commission for Activities and Products Nomenclature (Commission Nationale des Nomenclatures d'Activités et de Produits), created in 1970, which is in charge of establishing and updating the activities and products lists used by all government bodies for administrative as well as statistical purposes. Its chairman is the INSEE's Director-General; the INSEE acts as secretariat, assisted by the general customs and excise administration (Direction Générale des Douanes et des Droits Indirects).

Strengths and weaknesses of the French statistical information system

29. The main strength of the French system is unquestionably its integration, which is much higher than in other developed countries. Every nation seeks to coordinate its statistical activities and to ensure the consistency of the data produced. By and large - although there is still room for progress - these goals seem to be more fully attained in France. This is chiefly due to the existence of general coordination instruments used not only in statistical work itself but, more extensively, in administrative management.

For example, the list of firms and places of business (SIRENE) serves to identify and code the principal economic activity of each of these basic units. The identity codes are used by all government departments. It is therefore easier to take information of administrative origin and interlink it with statistical survey data. France is one of the rare countries where statisticians are so closely involved in developing and managing a general resource of this kind.

While activity reference nomenclatures are widespread, the French methods exhibit at least three distinctive features: (1) a more consistent application of the nomenclatures, centering on the principal-activity code, (2) a higher integration of activity and product nomenclatures and (3) a broad administrative function for these nomenclatures as a common language of government, including in its regulatory activity.

In France, the integration of the statistical information system and the use of accounting data have also been promoted by the development of highly standardized business accounting procedures, centered on the General Accounting Plan (Plan Comptable Général: PCG). The PCG categories serve as reference for tax authorities and business statisticians alike.

The national accounting system, directly or in conjunction with the General Accounting Plan, plays a greater role in the integration of the statistical system than is the case in most countries.

30. The fairly extensive decentralization of the French data-gathering system is also a strength. It ensures a better awareness of user needs by creating closer contacts between producers and users of statistics - especially the users responsible for economic policy-making in government departments. But this feature also applies to economic agents in general. For example, civil-engineering firms are more likely to apply to the statistics office of the ministry in charge of their industry, since they are in constant contact with the ministry's other departments responsible for labor legislation, regulations, government procurement and so on. The firms would probably be less willing to apply to a central statistics office.

Admittedly, other countries such as the USA and the UK also have a decentralized statistical system. But France has succeeded in maintaining a high overall consistency despite its decentralization. This is due not only to the extensive integration of its statistical information system, but also to a range of legislative and practical measures: the INSEE is officially responsible by law for coordinating the entire system; and the Institute serves as "source" and "manager" for officials in all statistical departments. Moreover, all these officials are graduates of a single school: the National School of Statistics and Economic Administration (Ecole Nationale de la Statistique et de l'Administration Economique: ENSAE).

31. Another strength of the French system, as we have seen, is the scale of the resources devoted to information distribution and to gathering feedback on user needs. Lastly, the national and regional presence of the INSEE and government statistical departments ensures a better response to user needs at every level.

32. By contrast, the French system is lagging somewhat behind in the use of modern information-gathering methods and in the application of sampling techniques. Depending on the country, current census and survey data-gathering methods are a variable mix of door-to-door polling, mail questionnaires and telephone inquiries. France's methods here seem to be less modern than those of countries such as the USA and Canada. The gap is mainly due to the socio-economic differences between these countries, which are shaped by a factor as basic as territorial size. The nationwide deployment and everyday acceptance of the telephone occurred earlier in the two North American countries than in France; and the USA modernized its farming before France did. However, France is moving cautiously in the same direction. It is introducing an ever-higher percentage of mail surveys in agriculture (they are the rule in other economic sectors) and experimenting with telephone polls in simple household surveys. Advances in communication technologies are bringing major changes in information-gathering methods, particularly in the corporate sphere. Trial surveys using Minitel videotex terminals have already been conducted in France, but the country lags behind in the use of portable personal computers for

data-gathering. Remote sensing is also increasingly employed to compile statistics on agriculture, the environment and land use. In this technology, the USA and Canada are leading not only because of their size. France, however, has made considerable progress here.

French shortcomings are undoubtedly more serious when it comes to maximizing the efficiency of sampling methods. Sampling is used in France as elsewhere to lower statistics-gathering costs in surveys and administration work. But our country has a shortage of experts in the field. This can result in a poor optimization of sampling schemes, faulty assessment of the accuracy of results, and inadequate control of data quality.

33. As regards dissemination, France again lags somewhat behind North American countries - where the private sector plays a far greater role in particular in disseminating macroeconomic information. In truth, the problem is not specifically French, but European. In Europe, many obstacles have so far impeded the development of a world-class provider:

- the fragmentation of the market into separate national markets, none of which is sufficiently large to ensure rapid profitability for a national provider;

- deep cultural differences between Europe and the USA concerning the value of economic information, for which European firms are unwilling to pay a high price or indeed even a fair price;

- the existence of a number of government or para-statal institutions that are willing to sell information with high added value and forecasts at the marginal cost incurred in making the information available to the user: this hampers the emergence of a profitable private provider.

34. In conclusion, I should like to go a bit beyond the scope of this paper to discuss the respective roles of government agencies and commercial providers in distributing statistical information. In the coming decade, the distinction is bound to become a crucial issue in the improvement of statistical-information dissemination.

Just four decades ago, governments were nearly the only users of the statistical information produced by their departments. Today, the number and diversity of users has greatly increased. Census data have become a key input in regional and urban planning. Businesses in North America and - to a lesser extent - in Europe now regard statistical information as one of the main external inputs they need to develop their growth strategies and marketing plans. But, most important, statistical information has become an irreplaceable ingredient of the political and social debate. Today, it is a vital requirement for elected officials, trade-union officials, organization leaders - in short, for citizens.

Government statistical departments have responded by increasing the number and range of publications and creating new distribution media such as microfiches, magnetic tapes, disks and databases. These innovations complement the printed-paper versions and make it possible to customize the product offering.

The cumulative consequence is that a vastly greater volume of information is available for distribution to an ever-larger, ever more diversified market. This has triggered a threshold effect that requires the public statistical-information system to examine some urgent questions, principally regarding the nature of the information it produces: is it a consumer product like any other, or on the contrary a public commodity, or even a cultural object? And, as a corollary, should there be a charge for making it available? If so, on what basis? A charge for the information itself, or only for the accompanying services?

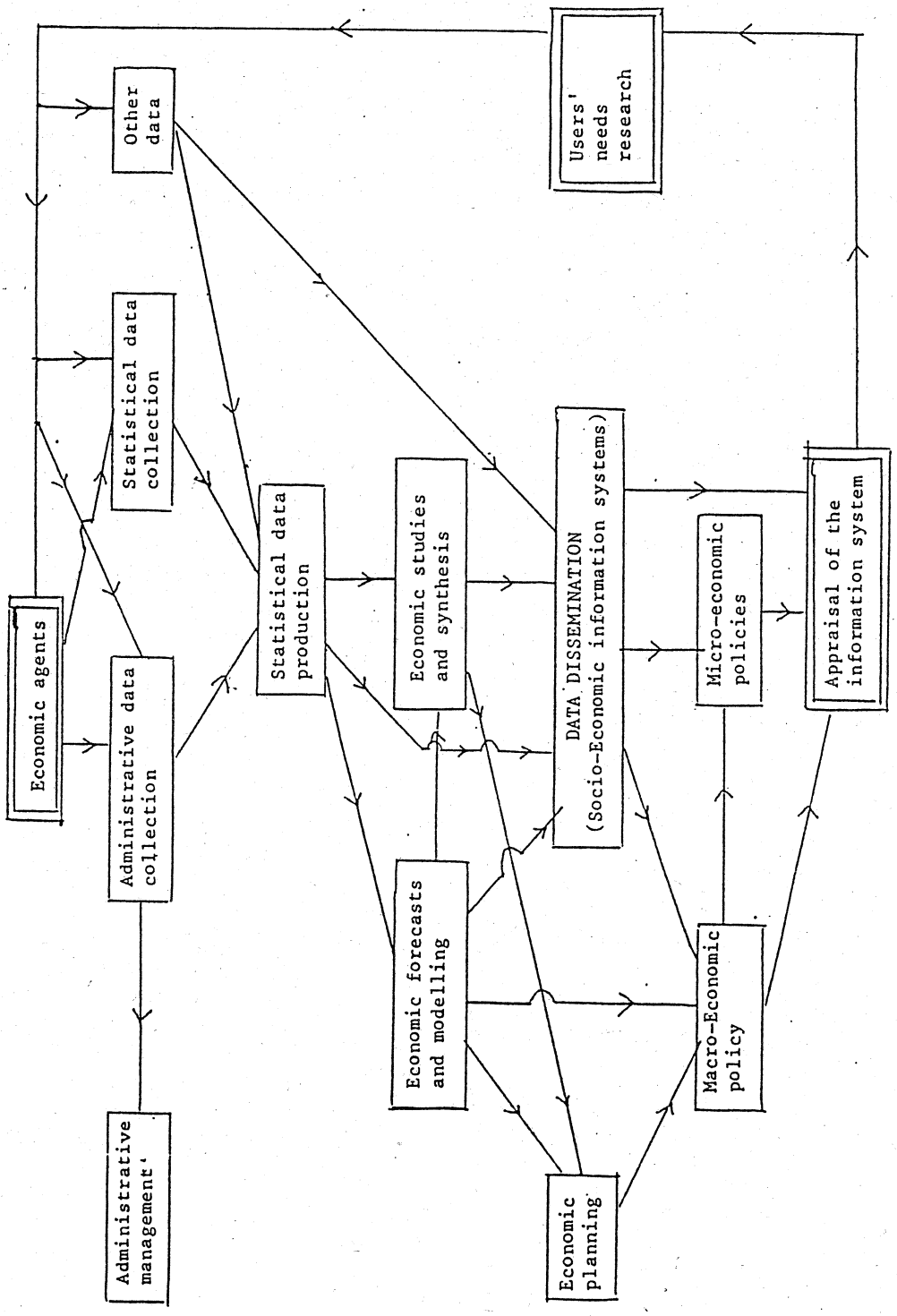
So far, the differences of opinion on these issues have been hard to reconcile. The information used by a firm may be regarded as one of many inputs in the cost of the goods or services it sells. Firms should therefore be billed for the information, as they are for the supply of electrical power or the transportation of their personnel - whether or not such services are provided by public entities. Another approach is to argue that the information used by citizens to enable them to participate in major political debates is a public commodity

already paid by citizens through their taxes. Citizens should therefore be entitled to the information at no more than a marginal cost. But what about a trade union or association that uses the information for the sole benefit of its members but, because of its non-profit status, cannot pass on the information cost in a "production cost"? And how should one respond to students who rightly expect their university to supply them with the reference material they need for their studies and research, but who all too often have to make inquiries to statistical departments? These four examples raise a further question: is it the same information, in the same form, that serves for the professional user's operational needs and for the enhancement of the citizen-user's economic culture?

It should be added that the distribution of statistical information has long ceased to be a monopoly of the departments that produce it. Apart from the media (general-public or specialized press, radio, television) and institutional intermediaries such as chambers of commerce, professional bodies and trade unions, there are now service and research firms that redistribute statistical information with varying degrees of value added. Such businesses cater for many different types of users and therefore tailor their offerings to specific user needs. This kind of customized service often includes a high share of value added in the form of consultancy. By nature, government statistical offices lack the flexibility and resources necessary to meet this multiform demand, for the requests combine different kinds of information (not only statistical but also legal, commercial, bibliographical and so on) that have to be merged into a suitable synoptic form. Nevertheless, government statistical offices cannot overlook this type of distribution, because they are contribute the original inputs: the quality of the distributed information therefore reflects their institutional image (this is practically an ethical problem), even though the offices cannot be held responsible for the uses to which the information is put.

That is one of the challenges facing managers of statistical information systems.

Fig. 1 : Analysis grid for socio-economic information systems



Management of Statistical Services in Hong Kong

I. Organisation of Statistical Services

The Census and Statistics Department of Hong Kong (HKC&SD) is the Government's central statistical organisation in Hong Kong. As Hong Kong is a small territory in terms of area, the need for regional statistical offices does not arise. The Commissisoner for Census and Statistics, as Head of the Department, is also Head of the Government Statistical Service and Government's adviser on all statistical matters.

2. While the HKC&SD headquarters are responsible for and directly control statistical activities serving general purposes, statistical projects which fulfil the administrative needs of specific departments are undertaken by statistical sections established under the respective departments. Statistical personnels at various levels work in eight Policy Branches of the Government Secretariat and twenty-three other Government departments. These staff work in and for the departments to which they are posted but the resources of the HKC&SD headquarters, in the form of professional advice and assistance, are available to them whenever necessary. The Government Statistical Service thus in effect comprises the HKC&SD and the network of statistical sections established under various Government offices. The organisation chart of the HKC&SD is at Annex I.

3. To fulfil its responsibility for maintaining professional standards, the HKC&SD has established a communication network with the statistical staff working in various departments. The HKC&SD performs its supervisory role through the appointment of functional supervisors in its headquarters, who maintain regular contacts with the statistical staff and also their line supervisors in outposted statistical units. Through this arrangement, the Department ensures that outposted staff are engaged in tasks appropriate to their ranks and functions, that the application of statistical data or statistical methods and the design

of statistical systems are properly carried out, that the classifications and definitions adopted in different statistical systems are compatible and consistent so as to permit both local and international comparison, and that consultations and discussions of major statistical developments are conducted with relevant parties as and when necessaary.

4. The Commissioner for Census and Statistics, in his statistical advisory role, advises the Governor and other government departments in major issues involving the proper collection, application and interpretation of statistics. For departments having a statistical unit, such advisory function is effected mainly through the communication network between the HKC&SD and the client departments, and the daily service provided by the statistical unit within the department concerned. For example, statistical staff at the senior professional level working in the Housing Department, besides monitoring the quality of statistics produced by his unit for use by his host department, has to take part in various standing and ad hoc working groups to give advice to senior officers of his department and unofficial members on the proper interpretation and application of statistical data for formulating housing strategies, planning of new housing estates and management of existing estates. On the other hand, to keep abreast with new developments in the theory and practice of statistical techniques, professional statistical staff in the Housing Department have opportunities to discuss relevant issues at regular meetings, or special consultations if necessary, with their functional supervisors in the HKC&SD.

5. For departments without a statistical unit, advisory service and statistical support are provided by the two General Statistics Branches(GSB) of the HKC&SD, which undertake statistical studies relating to subjects not already covered by the HKC&SD headquarters or other government departments having statistical units. Professional statisticians of the GSB would give advice, through meetings with the client departments, on how their statistical requirements can best be met, and if necessary arrange the conduct of ad hoc studies or special surveys to collect the required data, subject to resources being available. For example, assistance was rendered to the Civil Service Branch of the Government Secretariat in the financial review of civil service housing benefits, in forecasting the recruitment requirement of Administrative Officers,and in a review of the personnel statistics system of the Staff Planning Division.

6. In dealing with issues or tasks with wide policy implications involving various policy branches and departments, special working parties are usually set up, comprising representatives of relevant departments. The Commissioner for Census and Statistics would also be represented in these working parties, as and when necessary, to give advice on statistical aspects. The Working Group on Port and Airport Development Strategy is an example of such participation by the HKC&SD.

7. To ensure that the work of the Government Statistical Service caters for the interests of the public, the Government has appointed a Statistics Advisory Board, comprising representatives from both the public and private sectors, to advise the HKC&SD generally on important statistical plans and proposals. Major plans for statistical developments have to be deliberated and endorsed by the Board before they can be implemented. The Board also considers at its regular meetings, progress reports of major statistical projects undertaken in the Government Statistical Service, and raises suggestions for improvement as it considers necessary.

II. Planning of Statistical Activities and Determining Priorities

8. Statistical planning and policy have been addressed in a systematic manner to the basic statistical activities of collection, summarization, estimation analysis, storage and dissemination. During different stages of statistical development, different emphases and hence priorities have been given to these statistical activities, and to different aspects within such activities. This is partly due to the fact that time is required for experience to be accumulated and resources to be acquired for expanding the scope of statistical activities and applying more sophisticated statistical methods to the activities. It is also partly due to the fact that the advancement of technology and development of new statistical techniques continuously affect the planning and development of statistical activities. The fast development of information technology has particularly significant impacts on statistical activities in recent years.

9. In the early years following the establishment of the Department in 1967, the main emphasis was on the effective collection and compilation of basic economic and social statistics. Due to limited experience and resources, the surveys conducted were on a relatively restricted scope in the early years, and the techniques applied in sample design, estimation and analysis were relatively of the less sophiscated types. As to storage and dissemination of statistical information, the conventional methods of using paper or computer tapes were the major means.

10. After some 20 years of active development, most of the programmes necessary for providing an adequate framework of economic and social statistics have been implemented. In recent years the emphasis on the collection and compilation of economic and social statistics has been not only the effectiveness of the programmes organised, but also the efficiency of the methods used, particularly in those statistical projects which are labour intensive in nature or for which timeliness is a major consideration. The development of computer technology has had a major impact on this. This is illustrated by the application of computer-aided telephone interviews to the survey on employment, vacancies and payroll in economic establishments, the adoption of a scheme which provides traders with the option of submitting trade declarations on computer diskettes, and the introduction of a computer network for monitoring the mammoth field operations in the 1991 Population Census. These applications are expected to contribute to savings in manpower and to ensure timeliness in data collection, data processing and control of the statistical operations. They are also likely to bring about convenience and manpower saving to respondents.

11. Besides efficiency, the scope for many surveys has been widened, and more sophisticated techniques have been adopted in sample designs and estimation methods. For instance, through the construction of a central register of establishsments, economic censuses and surveys can now be conducted under a more comprehensive scope. The application of replicated sampling in the General Household Survey has facilitated the calculation of sample errors of the survey estimates, and the use of overlapping sample design has enabled comparisons over consecutive time periods. More importantly, both in quantity and

complexity, activities relating to data analysis have expanded rapidly. This has been due to the rapid development of computer technology which has enabled an abundant supply of user friendly packages on all kinds of computer installations, and also professional staff's growing awareness, interest and ability in making use of such facilities. For instance, the SPSS package is widely applied on the Government's Bureau machine by statistical staff to produce various kinds of tabulations and to perform various kinds of statistical analysis. Following the installation of the Statistical Analysis System (SAS) package on the Department's minicomputer, the econometric model for forecasting Hong Kong's economic performance has been enhanced and fully computerized, and time series analysis has been made much easier. An in-house computer much more powerful than the existing minicomputer will be acquired around September this year to cater for the needs of the 1991 Population Census and several other important projects. Many systems or sub-systems for statistical or administrative purposes have been and are being developed in the many microcomputers installed in the Department. The number of microcomputer installations are expected to continue increasing significantly in the next few years. The potential of end user computing applications by statistical professionals is seen to be ever growing, and will continue to be a major consideration of the Department in planning the development of future statistical activities.

12. Following the rapid advancement of technology, the means of disseminating statistics, particuarly methods of promoting the use of statistics, have also undergone considerable developments in recent years, mainly in the use of more modernized and multi-media facilities. The supply of voluminous statistical data such as trade statistics by commodity by country on computer tapes to other organisations has been an established practice. Starting from 1989, various social and economic statistics published periodically by the Department are accessible to the public through an electronic mail service, viz the DIALCOM network serviced by the Cable & Wireless Co. Ltd. The 1981 and 1986 Hong Kong population census data on CD-ROM (Compact Disc Read-Only-Memory) were put on sale in 1988 through a joint venture between the Department and an Australian company specialized in computer technology. In addition to printed copies, the voluminous monthly publication on "Hong Kong Trade Statistics" was available in COM (Computer Output Microfiche) since early 1988.

The possibility of distributing the Monthly Digest of Statistics (a monthly publication of the HKC&SD containing a variety of useful statistical data series) on diskettes is also actively being explored. As regards statistical publications in the traditional paper form, the powerful capability in textual and graphic manipulation of desktop publishing softwares available on microcomputers has been used for enhancing the timeliness and quality in the presentation and production of statistical reports.

13. To cope with the above statistical developments, adequate training is necessary for the statistical staff. This is achieved mainly by sending officers to attend statistical courses at overseas statistical institutes and universities; organising in-house courses on statistical applications, in collaboration with local academic institutes where appropriate; and organising intensive courses, sometimes in collaboration with international organisations, on popular statistical software packages such as SPSSX and SAS to provide statistical staff with the skills and techniques of applying them in statistical operations. Moreover, in view of the proliferation of microcomputer application in various areas of statistical work, besides training courses on microcomputer softwares run by the Government training centre, the Department organises for statistical staff in-house training courses, seminars and self-learning video sessions covering various topics ranging from general concepts of data processing and database management to more specific software packages.

14. Besides the basic statistical activities, the need for protecting the privacy and confidentiality of information provided by individual respondents is also a major concern of the Department. Reviews in legislative and administrative arrangements are regularly made to provide the necessary safeguards. Furthermore, better means to co-ordinate the requirements of various surveys are being explored to reduce respondents' burdens.

15. While the above outlines how statistical activities have been planned and their priorities determined, the priorities of specific statistical projects are basically determined by users' needs and resources available. With regard to needs, the requirements of policy users and the advice of the Statistical Advisory Board are important determinants. However, when the needs for particular projects are greater than what currently available resources can cope with, the latter will inevitably be the deciding factor. This applies to statistical projects of general purposes conducted by the HKC&SD, and also to those initiated by other departments for meeting their own specific needs. This underlines the importance attached by the HKC&SD to the application of manpower saving devices, especially office automation and information technology, so that scarce manpower resources can be best utilized. This has become ever more pressing recently due to the shortage of labour on a territory scale in Hong Kong. The progress in such applications has been encouraging and their prospect optimistic.

III. Relationship with international organisations and agencies on statistical matters

16. Besides local statistical developments, the C&SD is well aware of the need to observe closely devleopments in statistical concepts and methods recommended by international organisations. To ensure international comparability, the C&SD is always receptive to international recommendations and ready to adopt them, if practicable, in Hong Kong's circumstances. Where appropriate and necessary, suitable changes or enhancements will be made to Hong Kong's own systems to meet the international standards. If differences between the local and international standards exist due to special reasons, these will be highlighted where appropriate.

17. The HKC&SD maintains contacts with a number of international organisations through regular supply and exchange of statistical information relating to Hong Kong. Besides supply of statistical information, Hong Kong also cooperates with these organisations by contributing comments or views when required and through active participation in conferences, seminars and training programmes on statistical concepts and methods organised by such organisations. An example is the International

Comparison Programme (ICP, formerly the International Comparison Project) organised by the UNSO. Hong Kong participated in Phase IV and Phase V of the ICP, and also took part in a workshop and seminar arranged by ESCAP for countries participating in Phase V. It is the policy of the HKC&SD to maintain harmonious relationship with international organisations and agencies and to continue to support them in matters relating to statistical activities.

Annex I - Organisation Chart of Census and Statistics Department

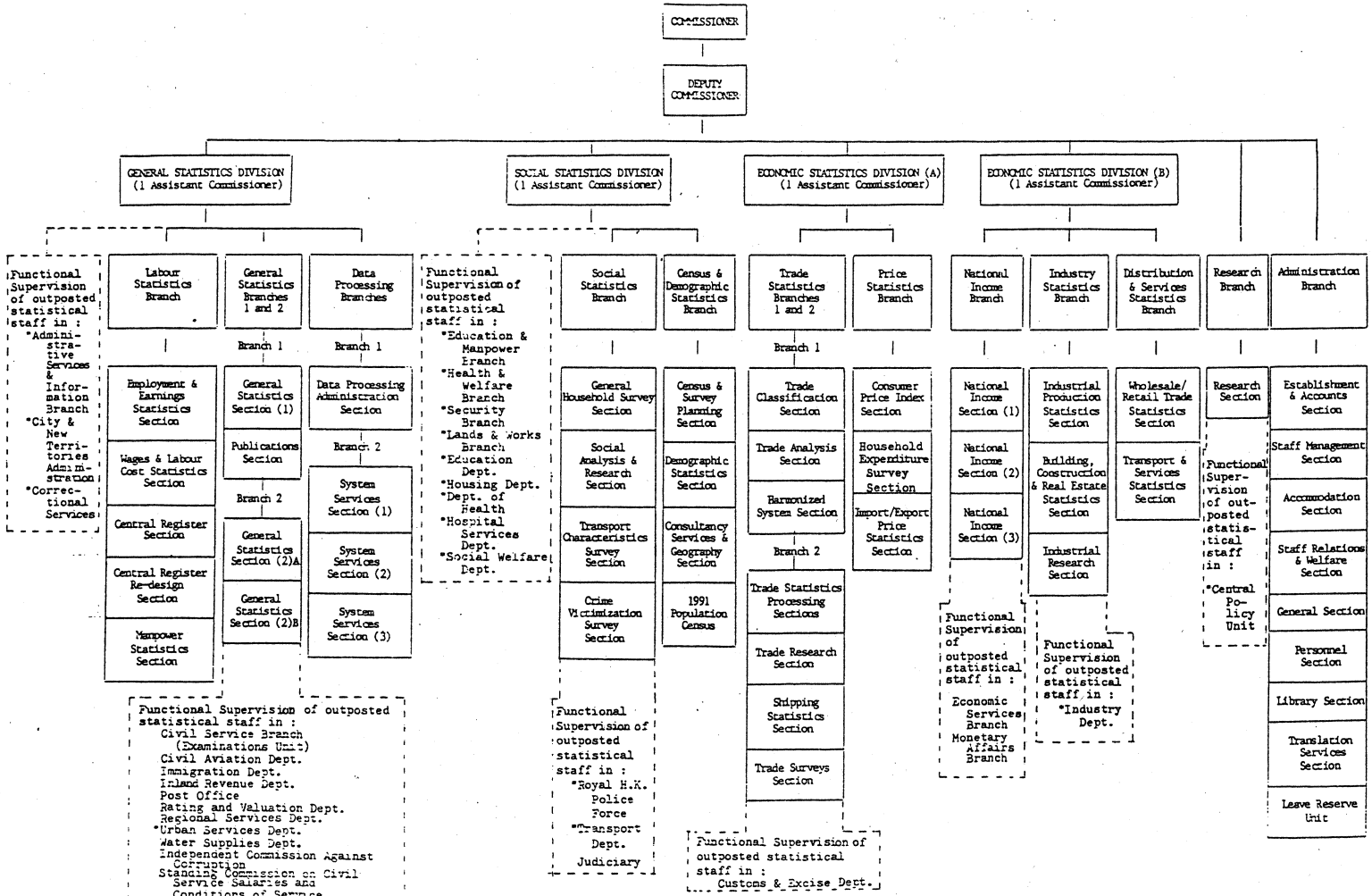
Census and Statistics Department
Hong Kong

July 1989

Annex I

ORGANIZATION CHART

Census & Statistics Department



* Branches/departments marked with '*' are supported by professional statistical staff; those not marked are supported by sub-professional statistical staff only.

OPERATIONAL ASPECTS OF STATISTICAL SERVICES IN INDIA

INTRODUCTION

The Indian statistical system functions within the overall administrative set-up of the country. Under the Indian Constitution, the division of responsibility between the central government and the state governments is on the basis of a three-fold classification of all subjects, viz., central list, state list and the concurrent list, the last category representing areas where both the central and state governments operate. There is further division of responsibilities by subjects at the central and state levels among the different central ministries and among the state government departments.

THE STATISTICAL SYSTEM

Decentralisation of responsibility

2. The authority and responsibility for the collection of statistics relating to any subject-field is determined by the overall responsibility for the subject under the Constitution. The system is thus a decentralised one, both territorially and subject-wise, i.e., ministries at the centre and departments in the states are responsible for the collection and compilation of statistics relating to their subject fields. Much of statistical activity is, however, concurrent and calls for effective central coordination and direction. At the national level, the Central Statistical Organisation (CSO) has the responsibility for coordination of all statistical activities in the country. Likewise,

at the state level, the State Directorates of Economics and Statistics (DES) are responsible for coordination of all statistical activities in the respective state. They also maintain liaison with the CSO for the purpose of coordination at the national level.

Development of the System

3. The statistical system has undergone significant development over the last four decades. This was mainly stimulated by the direct role of government in the economic and social development of the country, which formally began with the ushering of country's First Five Year Plan in 1951. Achieving full employment, reducing inequalities of income and wealth, setting up a socialist society based on equality and justice bereft of exploitation, besides increasing production to the maximum possible extent, have been the long-term objectives set out by the planners. Besides, each five year plan envisages short-term programme focussing on employment generation, resources and income augmentation of vulnerable sections of society through economic development activities, provision of essential minimum needs, direct attack on the problems of poverty, unemployment and regional imbalances to ensure the uplift of large sections of the population. Planners under the leadership of our late Prime Minister Jawaharlal Nehru realised in ,the early fifties that without a proper data base it would not be possible to translate these objectives and programmes into a workable strategy. Very appropriately, therefore, together with initiating planning in the country, the foundation was laid for a sound statistical system as well to provide the data needed to give an internally consistent and operationally viable model for planning. To begin with, the CSO was set up in 1951, the year in which the First Five Year Plan of the country was launched. This was followed

by the setting up of organisations in the states, districts and at lower levels exclusively devoted to strengthening the data base at those levels. The phenomenan growth is illustrated by the increase in the number of statistical offices in the central and state governments from 174 in 1952-53 to about 1683 in 1982-83 and in the number of statistical personnel from 4770 in 1952-53 to about 56400 in 1982-83. The other major institutional developments include the setting up of the Directorate of National Sample Survey in 1950 for carrying out large scale multipurpose surveys in the country (which was later reorganised into an integrated survey organisation known as the National Sample Survey Organisation (NSSO) in 1970); declaration of the Indian Statistical Institute (ISI) (founded in 1932 by late Professor P.C. Mahalanobis), as an institution of national importance in 1959; creation of a separate Department of Statistics at the central level in 1961 covering CSO and NSSO; and the establishment of an in-house Computer Centre for the Department of Statistics in 1969.

Statistical set-up at the Centre

4. Most of the ministries at the centre have a full-fledged statistical department; or a statistical division or a section depending upon their needs and the stage of development of statistics in the relevant field. On a broad functional basis, they can be classified into three categories. Some of the statistical offices, which are located in the administrative departments like Income Tax, Railways and Communications are engaged in processing the data which flow in as a by-product of administration. The second category consists of statistical units located in organisations with regulatory functions like the office of the Iron and Steel Controller, Textile Commissioner's Office, Central

Excise Commissioner's Office etc., where data are gathered in the process of regulating production/distribution/consumption of commodities. The third category comprises statistical organisations which have been established by government specially for collecting and compiling data or for the purpose of coordination of statistical activities. Examples of such organisations are: Office of the Registrar General, Directorate General of Commercial Intelligence and Statistics, Labour Bureau, Army Statistical Organisation, and NSSO. The CSO, besides coordinating the statistical activities at the national level and keeping liaison with international statistical agencies has the primary responsibility for subjects like national accounts, industrial statistics, statistics of un-organised segments in different sectors of the non-agricultural economy, consumer price index number for urban non-manual employees and training of statistical personnel.

Set-up in the States

5. Statistical units functioning in the various state government departments collect and compile statistics relating to the fields of responsibility of the respective departments. Besides the functions of coordination of statistical activity of the different state government departments, the state DES are entrusted with the publication of statistical abstract of all essential statistics, preparation of state income estimates, organising special enquiries and surveys, liaison with CSO, work relating to planning, and training of primary/middle level statistical personnel. In some states, collection of statistics is by and large centralised in the DES, while in other states collection of agriculture, labour and vital statistics falls outside the scope of DES.

6. For administrative purposes, each state in India is divided into a number of districts and each district into number of tehsils/blocks. Almost every district has a District Statistical Office responsible for the execution of the field work of different surveys, which provide the necessary input in formulation of the district development programmes besides maintaining district/block level data. Some states have tehsil/block level statistical machinery as well. In a few states, there are regional offices located at divisional headquarters comprising a few districts.

7. The organisational chart of the statistical system in India is given at Annex.

Coordination of Statistical Activities

8. At the national level this important function, as explained earlier, is performed by CSO. The principal mechanism for exercising coordination is the forum of central and state statisticians, known as the Conference of Central and State Statistical Organisations convened biennially, where issues like needless and wasteful duplication of efforts, ensuring timeliness and requisite quality of data and optimum utilisation of resources for overall statistical development are discussed, and remedial measures formulated. The Conference also reviews the progress in the development of the system, facilitates the exchange of views on the strategy for future development and deliberates on outstanding issues. A Standing Committee follows up the implementation of the recommendations. A National Advisory Board on Statistics has been set up for providing technical guidance on policy issues concerning the development of statistics and for ensuring effective coordination of statistical activities. This apex body has representatives not only from the central ministries and state governments but also from universities, research institutes and non-official user organisations.

9. At the state level, the state DESs have the responsibility of coordinating the statistical activities of the various departments. In order to streamline and strengthen inter-departmental coordination, most of the states have set up a high level committee generally under the chairmanship of Minister in charge of statistics. The committee deals with all policy matters relating to the implementation of approved programmes of data collection and processing as also reduction of delays and avoidance of duplication of efforts by the state statistical agencies.

Electronic Data Processing

10. In India statistics is perhaps one area where computer technology was introduced first, in the mid-fifties, although initially for research. Later, from the mid-sixties it began to be adopted as a tool for data processing of large scale censuses and sample surveys at the national level. At present the data of all the major censuses such as population, agriculture, and economic as well as of national sample surveys and Annual Survey of Industries (ASI) are processed with the help of computers although manual tabulation is still in vague at lower levels. Now almost all the offices engaged in collecting large volume of data have dedicated computer facilities for generating the desired tabulation in time for use in planning and policy making at the national level. As mentioned earlier the Computer Centre of the Central Department of Statistics serves essentially as the in-house computer facility for data processing of NSSO and CSO.

11. The state DESs also collect and maintain data on their own and a few of them have set up dedicated computer facilities for processing of data while some others have a priority access to the computer centre

set up in the respective state governments for meeting the requirement of all government departments. A few other states use facilities provided by regional computer centres of the central government or of other public or private sector agencies.

Statistical Service

12. For the efficient operation of national statistical systsem it is necessary to maintain a solid core of qualified and adequately trained statistical personnel. At the central level the system is essentially supported by officials of the Indian Statistical Service (ISS) controlled by the Department of Statistics. The status of the service by and large corresponds to other organised central civil services. The recruitment to the service is made at the initial level via two channels, viz., 60 per cent by open competitive examination and 40 per cent by selection from amongst statistical personnel working at the next lower level in the various central ministries/departments. ISS meets the requirement of statistical personnel at professional level in the central ministries/departments. There is a separate Indian Economic Service similar to ISS whose members man posts which perform economic functions; there are also organisations where personnel from both the services work side by side. Several states have statistical cadres of their own generally controlled by the state authorities of economics and statistics which, by and large, only cover posts at professional level.

Statistical Training

13. Proper training is essential for maintaining the competence of statistical personnel. In spite of the high level of academic teaching of statistics being imparted now in India in more than 40 universities/ institutions, professional training is considered necessary for statistical personnel at the time of their entry into the service and later in the form of on-the-job or refresher courses to acquaint the officers with

the various fields of application of statistics which can not be adequately covered during their academic course. To provide such training facilities is one of the important functions of CSO at the centre and DES in the states. Many institutions such as the Indian Statistical Institute and Indian Agricultural Statistics Research Institute, provide training in specified branches of statistics. CSO has been conducting in-service training programmes in official statistics and related methodology for the past four and half decades for senior level statistical personnel of central and state government departments and public sector undertakings. In addition, it is also responsible for imparting intensive training to the fresh entrants to ISS and for organising refresher courses for those already in service. The course content of the various training programmes for fresh entrants includes a sizable component of electronic data processing (EDP). Besides, a number of separate training programmes in the field of EDP are organised for statisticians working at various levels in accordance with their requirements. The course content of the training programmes is reviewed from time to time by a Standing Committee. Major states have also created training capabilities to organise training programmes for the lower level statistical personnel of their state and neighbouring states.

PLANNING OF STATISTICAL ACTIVITIES AND DETERMINATION OF PRIORITIES

Schemes of Statistical Development

14. An important feature of the decentralised statistical systsem is the principle that individual policy making departments whether at the centre or in the states remains responsible for determining their own data needs keeping in view their changing requirements. Programmes

for statistical development are formulated by the respective ministries/departments in the area of their responsibility and incorporated in the consolidated plan proposals for inclusion in the five year plan for consideration by the Central Planning Commission. Similarly, Department of Statistics also prepares its plan proposals exclusively for the statistics dealt with by the organisations under its control. However, while framing the statistical plan schemes the ministries/departments do take into account the recommendations of the Conference of Central and State Statistical Organisations and of bodies like the National Advisory Board on Statistics and Committees, Commissions and Seminars. In so far as the states are concerned, CSO undertakes the responsibility of formulating 'core' statistical schemes to be accorded high priority. These schemes are generally formulated by a small working group on which state DESs and central ministries/departments are represented. Necessary guidelines are prepared and made available to ensure uniformity in the planning and organisation of various statistical programmes of national importance. Further, CSO helps the Planning Commission in the examination of the statistical schemes of various states through its Planning Division which functions as the Statistics & Surveys Division of the Commission. Director General, CSO, also functions as Adviser (Statistics) to the Planning Commission. Thus, CSO assists in promoting a balanced, harmonious and purposeful development in different subject matter fields.

RELATIONSHIP WITH INTERNATIONAL ORGANISATIONS ON STATISTICAL MATTERS

15. International activity in statistics initiated particularly under the auspices of the United Nations Statistical Office (UNSO) and ESCAP has contributed a great deal towards the development of statistical

services in this part of the world. The active cooperation and understanding of the countries of this region have played a no less significant role in the success achieved by UN in its endeavour. India is one of the few developing countries where the statistical system had taken roots well before it had come into being in several other developing countries in the region, thanks to the economic development process started by Indian government in the early fifties. As a result of this it became easier for India to reap the benefits of the work programmes started by UNSO and ESCAP from time to time, including those relating to the adoption of statistical standard classifications, concepts, definitions and methodology or the starting of new services/series in several branches of official statistics and organisation of training programmes. Another important aspect of international relationship is with regard to the exchange of statistical information amongst member countries and between member countries on the one hand and UNSO/ESCAP and specialised agencies of UN on the other. UNSO and other UN agencies have very appropriately shown consideration to the difficulties of the member countries in supplying of information of similar character to different agencies of UN, and therefore, have introduced a system of exchange of data within the UN system. At the same time, India is aware that like many other countries, it is incumbent upon it to supply the data collected to the UN system within the stipulated time frame.

16. India is self-sufficient in regard to technical capabilities for development of statistical services and technical assistance from international agencies may not be needed for the purpose. In fact, we are in a position to offer technical capabilities to the other member countries of the ESCAP region for development of statistical services as we are doing within our modest means by organising training courses under UN-National Household Survey Capability Programme.

PROGRAMME AND ACTIVITIES IN THE 1990s

17. The main thrust of statistical development programmes and activities in 1990s in India would be to (1) fill in important data gaps particularly relating to the unorganised segments of non-agricultural economy, (2) improve the quality of statistics, (3) undertake special measures of data processing to ensure that the results of annual rounds of large scale sample surveys are available within 12 months of the completion of the field work, (4) devise procedures and methods for providing the data required for planning at district and lower levels and (5) streamline the procedures to meet additional requirement of research workers and other users of additional tabulation from any large scale statistical operation on payment. An outline of the strategy to be adopted for the above mentioned programmes and activities is discussed below.

18. A new programme of data collection of the unorganised segment of the non-agricultural economy, based on enterprise approach was launched in India in 1977. In order to provide a good frame for devising an efficient sample survey, a country-wide economic census, the first of its kind, was undertaken in 1977. The scope of the economic census was limited to establishments (an operating unit engaged in production and/or distribution of goods and/or services not for the sole purpose of own consumption and employing at least one hired worker on a fairly regular basis) engaged in non-agricultural activity. The economic census was followed by two rounds of sample surveys, first in 1978-79, covering the unorganised segment of manufacturing in 1978-79 and the second in 1979-80 devoted to the unorganised segments of trade, transport, hotels & restaurants, storage & warehousing, and services. The follow up surveys covered both the establishments and own-account enterprises.

19. In the interest of overall economy and operational convenience, the second economic census was undertaken in 1980 along with the houselisting operations of the 1981 population census. The scope and coverage of the second economic census was enlarged by covering both the establishments and own-account enterprises engaged in any economic activity other than crop production and plantation. The second economic census was followed by three rounds of sample surveys of the unorganised segments. The first, devoted to transport, hotels & restaurants, storage & warehousing, and services, was undertaken in 1983-84; the second one, in 1984-85, covered unorganised manufacturing and the last one in 1985-86 was devoted to unorganised trade.

20. The frame of the second economic census was updated in selected urban areas during 1987-88 for designing the third round of follow up surveys. The third round will comprise four surveys. The first devoted to unorganised segments of transport, hotels & restaurants was undertaken during 1988-89, the second dealing with unorganised manufacturing will be undertaken during 1989-90, followed by the third round in 1990-91 on unorganised trade, and the last one in 1991-92 devoted to the unorganised segments of the remaining sectors of the non-agricultural economy. It is proposed to undertake the third economic census in 1990 along with the houselisting operations of 1991 population census. The programme of follow up surveys would be put into operation on a regular basis so as to provide a detailed picture of the unorganised segment of each sector of the non-agricultural economy once in five years.

21. Considerable attention has been given in recent years in India to the problem of inordinate and avoidable time-lag in the availability of results of large scale sample surveys. The installation of direct data entry system has helped to some extent in improving the

situation. Experience in the Department of Statistics had led us to believe that almost three-fourths of the total effort required, both in terms of manpower and time, for large-scale processing, is spent upto and including the stage of cleaning and validation of data. None of the available software packages for validation of data is considered wholly suitable for Indian conditions where data pertaining to censuses and surveys are collected by enquiry from the respondents. In order to overcome this problem, a small group at the Indian Statistical Institute has been assigned the responsibility of devising a generalised software package for validation and cleaning of large-scale data collected under the annual rounds of NSSO. It is hoped that as a result of some of the steps already taken such as decentralisation of the work upto the stage of validation of data and with the hope of availability of a generalised software package for validation and cleaning of data, it would be possible to complete the data processing job of a round of large scale sample survey within a period of 12 months of the completion of the field work. Of late, CSO has successfully attempted to have the computer print-out of the results of large scale sample surveys in the form in which it is to be finally released for dissemination and then obtain a large number of copies directly from this output through photo offset printing process. This has had the beneficial effect of not only cutting down the delay in the printing presses but also of providing a copy to the user free of any printing error. CSO has also taken a lead in meeting the needs of users by providing results of large scale surveys in a computer readable form (tape or floppy), in addition to the usual printed reports.

22. With the growing stress on de-centralised planning in India, the need for data at district and

lower levels has considerably increased. As already mentioned almost all the districts in the country have now a District Statistical Office. Some states have established statistical machinery at sub-district level also. Attempts would be made to set up similar machinery in other states during the 1990s. The annual rounds of large scale sample surveys initiated by the NSSO in 1950-51 continue to be the major source of providing the requisite socio-economic data for formulation of development programmes. In 1950-51, when the programme of national sample survey was started, the size of the sample was determined on considerations of providing reliable results at all-India and state level to meet the requirements of national planning. The State Directorates of Economics and Statistics also started participating in the programme of national sample survey by collecting data by adopting the same sampling design, schedules and instructions as are used by NSSO with a view to providing a mechanism by which the sample size will get increased and it becomes possible to obtain more dis-aggregated results at the regional level instead of state level by pooling the results pertaining to central and state samples. Unfortunately, pooling of results of central and state samples has not been attempted on a regular or systematic basis mainly for want of a simple procedure of pooling the results which does not call for a large amount of additional resources. As a result of some good work done recently at the Computer Centre of the Department of Statistics it has been possible to devise a procedure under which the same set of software would provide the results of the central sample, state sample and with a very minor modification could also be used for providing tabulations of the pooled central and state samples. Appropriate guidelines for undertaking the pooling of results of central and state samples have been devised and it is proposed to implement this as a regular feature during

to recoup, to some extent, the cost of collection which is becoming increasingly difficult to meet from the normal budgets of the producing agencies.

24. In addition to the new programmes enumerated above, the usual programmes of 1991 decennial population census, a massive statistical operation to collect key demographic, social and economic information on nearly 900 million heads and two quinquennial agricultural censuses with reference year 1990-91 and 1995-96 respectively will be implemented during 1990s.

25. Recently, a new series of national accounts statistics with constant price estimates at revised base 1980-81 were brought out. Annual estimates are now prepared on the basis of methodology enumerated in the new series. With the forthcoming revised SNA which is expected to be brought out by the UNSO in 1991 corresponding revisions will be attempted during 1990s in the new series to the extent feasible.

26. CSO has been preparing input-output transactions table (IOTT) for use in connection with the formulation of five year plans. The IOTT for 1983-84 is likely to be finalised in 1989-90. Subsequently, IOTT will be prepared at intervals of five years so as to be available in time for the formulation of the following five year plan.

27. The Indian National Industrial Classification (NIC) provides a uniform frame work for grouping together economic activities of a similar nature prevailing in the economy. Recently, NIC-87 was brought out revising the earlier NIC-77. India has also developed a common product nomenclature-88 (CPN-88) to provide a comprehensive and widely usable commodity classification with the object of linking it with industrial classification. Both NIC-87 and CPN-88 will have to

the 1990s at least for some of the major states. This, coupled with an attempt to marginally increase the sample size during the Eighth Five Year Plan, both for central and state surveys, is likely to meet the requirement of providing results at the district level.

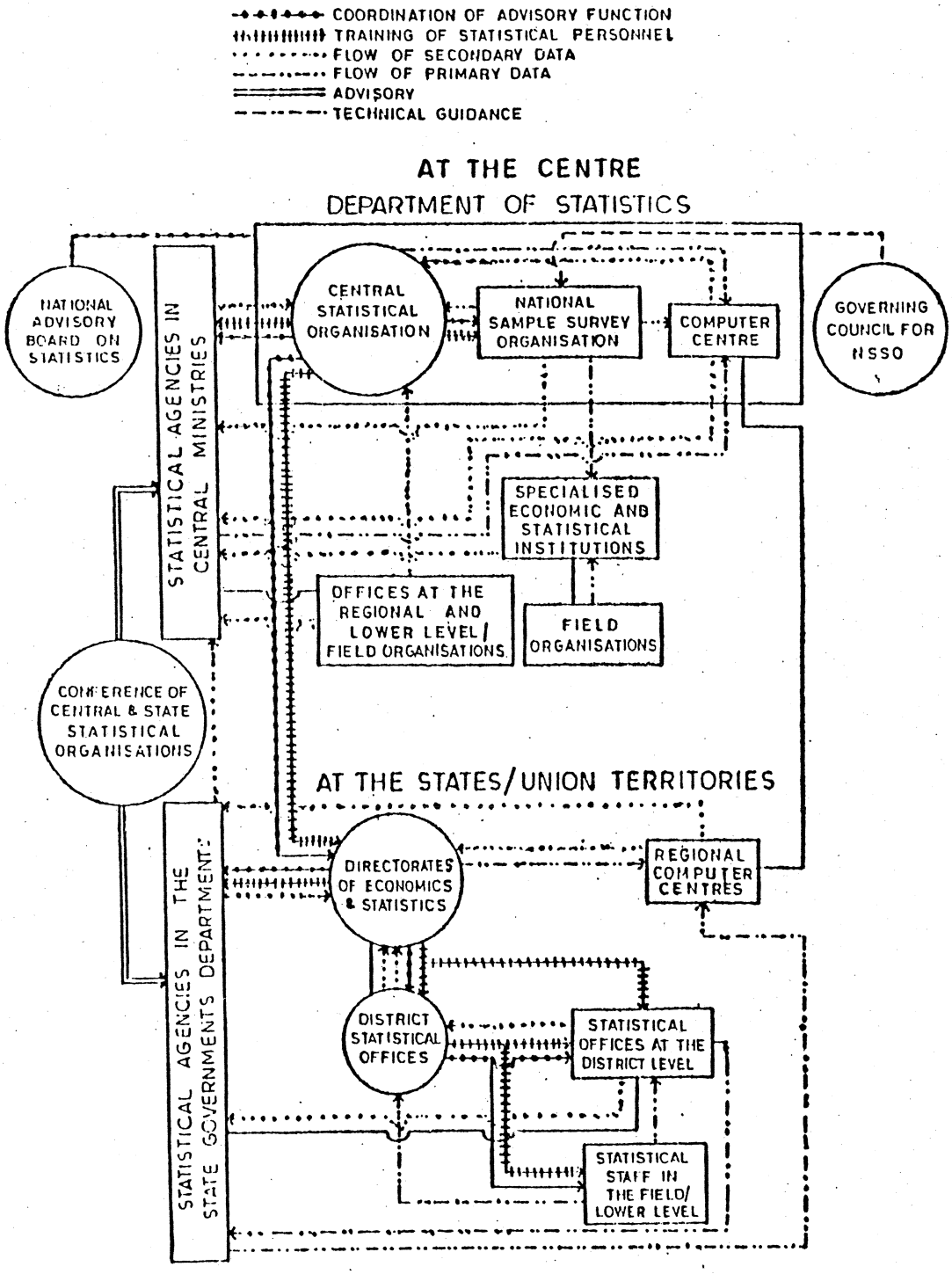
23. The tabulation programme of large scale statistical surveys is becoming more and more voluminous year after year as a result of growing demand from the users of the data. If the policy requirements envisaged by the Department of Statistics of providing the results of an annual round of a survey within a period of 12 months is to be fulfilled, it would have to be ensured that the tabulation programme is managed at a size which can be handled within the resources available for it. In view of this commitment, it may not be possible to publish all the data collected/tabulated for all the users. However, keeping in view the needs of the users, as also the problem of constraints on resources it has been decided that while releasing the results, the producing agency will clearly indicate the particulars of the data tabulated/processed but not published so that in case any user agency wants it would have the results based on unpublished data specially prepared for it by paying for the same and for the additional tabulation/processing, if any, required for the purpose. Further, in addition to the facilities already available at the Computer Centre of the Central Department of Statistics, arrangements have recently been made by NSSO for storing the copies of their data tapes at three other Computer Centres, located one each in eastern, southern and western zones of India for easier access to the users for getting the additional tabulations. Other producer agencies are likely follow this example of NSSO. Both these steps will go a long way in ensuring more fruitful utilisation of the data by users in the 1990s and at the same time enable the producer of data

be revised in the 1990s with the impending changes in the International Standard Industrial Classification (ISIC) and Central Product Classification (CPC). Further, the CPN which is at present limited only to agriculture, mining and quarrying and manufacturing sectors is proposed to be extended to other sectors during 1990s namely, electricity, gas and water supply, construction, wholesale and retail trade, transport and services.

28. The base for various indices such as industrial production, consumer price index numbers etc., is revised from time to time to reflect changes in the industrial structure of the Indian economy, and in the consumption pattern of the population, as the case may be. Such revisions in the indices are expected to be undertaken during the 1990s to represent more appropriately the economic scenario.

29. Recently, India has had the privilege of organising training courses on sample surveys and electronic data processing under the UN National Household Survey Capability Programme (UN-NHSCP) towards assisting the developing countries of this region in building up expertise in the collection of vital data necessary for the planning process. A total of eight training courses have been organised under Phase-I of the programme, four on sampling and household survey methodology and four on electronic data processing. Recognising the usefulness of the course, two courses each in the two disciplines mentioned above will be conducted under Phase-II of the programme during 1989-90. In addition, two new courses on training of trainers in the above two disciplines will be organised during this period.

STATISTICAL SYSTEM IN INDIA



IN THE NAME OF ALLAH

THE COMPASSIONATE AND THE MERCIFUL

History

The history of statistical surveys in Iran dates back to ancient times.According to some historians,population counts and surveys were conducted in Achaemenid periods (7th century before Christ) to levy taxes and to determine the number of army personnel and the recruits. However,no reliable documents exist about the organizations concerned.

In modern times, the first statistical organization in Iran was set up in 1918, under the title of "General Department of Civil Registration and Statistics" affiliated to the Ministry of Interior. The department actually started its work in 1924.

However,the related decree was finally approved,with introduction of a few changes,by the parliament in 1928.Gradually the Department was extended, and in 1935 the regulations of the High Council of Statistics were elaborated,according to the first Article of which all the ministries and independent government organizations joined the council as members. In the meantime,the G.D.C.R.S. organized an institute whose function was to train the statistical personnel for the Department.

In 1939,a census design for implementation in cities was prepared. The design was first tested in Kashan*, followed by the census enumeration in thirty-five cities,which continued up to 1941.During this census enumeration,each city was enumerated in a single day.Owing to the outbreak of the Second World War, the implementation of the design came to a halt.

In 1952,the General Department of Public Statistics was established and the statistics and census act was prepared and approved by the parliament in 1953. The Department prepared the first nationwide census plan,

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* A city 269 Km. to the south of Tehran.

which was implemented,as scheduled,in 1956 after a series of pretests conducted during 1954 and 1955.

The G.D.P.S. was the first centralized statistical organization of the country.In addition to the 1956 National Census of Population and Housing,the G.D.P.S. conducted an agricultural survey 1960,a population sample survey 1963, a census of manufacturing establishments 1963, and a household budget survey also in 1963. All these activities were performed in an strictly centralized manner: enumerators were despatched from Tehran and all the questionnaires and other documents were sent to the central offices in the capital,Tehran.

The ever-increasing demand of planning organizations of the country for statistics and information as well as the urgent need for closer cooperation between the main producer of statistics and the planning body lead to the Act of 1965,according to which the G.D.P.S. detached from the Ministry of Interior and,together with the Statistics Department of the Plan Organization,formed the Statistical Centre of Iran affiliated to the Plan Organization of the time.

Since its establishment in 1965, the Statistical Centre of Iran (SCI) has been the main statistical agency of the country.According to the Act establishing the Statistical Centre of Iran:

- All ministries and government agencies are bound to send for prior approval of the SCI all proforma tables and questionnaires proposed for their statistical surveys.They should follow procedures, definitions, standards,and instructions of the Centre.They should also provide the Centre with the results of the surveys prior to publication(Article 3).

- All ministries and government agencies are bound to supply the SCI with any information which is deemed necessary and to cooperate in collection of statistical data (Article 4).

- All ministries and government agencies are bound to furnish the SCI, free of charge,with all necessary transportation and communication facilities and personnel during the time of population censuses for a period specified and sanctioned by the Council of Ministers.

In 1966,the SCI opened up 48 branches across the country but later on concentrated them into 23 larger branches in the centres of Ostans (provinces) until 1974. The second and third censuses of population and housing were conducted with the help of these same branches in 1966 and 1976.

Until 1979, the SCI prepared its statistical plans in a centralized manner but conducted them in a decentralized way through its Ostan (provincial) branches. After the victory of the Islamic Revolution of Iran and drastic changes in political,social and economic conditions of the country,basic and fundamental transformation of the statistical system of the Islamic Republic of Iran was quite essential.

Under the new statistical system, the statistical organization had to enjoy a closer and stronger relationship with the planning institution of the country. Therefore, branches of the SCI were incorporated into the Planning and Budget Bureaus of the Planning and Budget Organization in Ostans in respect of their administrative and financial affairs so that they could enjoy a closer acquaintance with statistical requirements of planners and increase financial and personnel possibilities of the centre. They,however,maintain their technical relations with the SCI and are responsible for the conduction of statistical plans in Ostans.

Present Statistical System of the IRI

The present statistical system of Iran consists of three groups of statistical producers each of which collect and provide data in one way or another. The first and second groups are government organizations that can be classified as (1) main statistical producers,and (2) other statistical producers. The third group is (3) the private sector.

1. Main Statistical Producers

The first group consists of such organizations that are directly

engaged in data collection through preparation .for and conduction of censuses and sample surveys. Since these organizations are very limited in number,the most important of them are introduced in brief below.

A. Statistical Centre of Iran

As the main statistical agency of the country,the SCI is responsible for :

a) Planning and implementing statistical projects and programmes including sample surveys and censuses.

b) Processing,analysing,interpreting and publishing statistical data.

c) Publishing a statistical yearbook to include all statistics of the country.

d) Rendering statistical services to ministries and other government and private agencies.

e) Planning and implementing programmes for training research workers and statisticians needed by the Centre and by other statistical agencies in the country.

f) Processing all the statistical data of government agencies,which are currently being processed by electronic equipment(except data of the National Iranian Oil Company and the Central Bank of Iran).

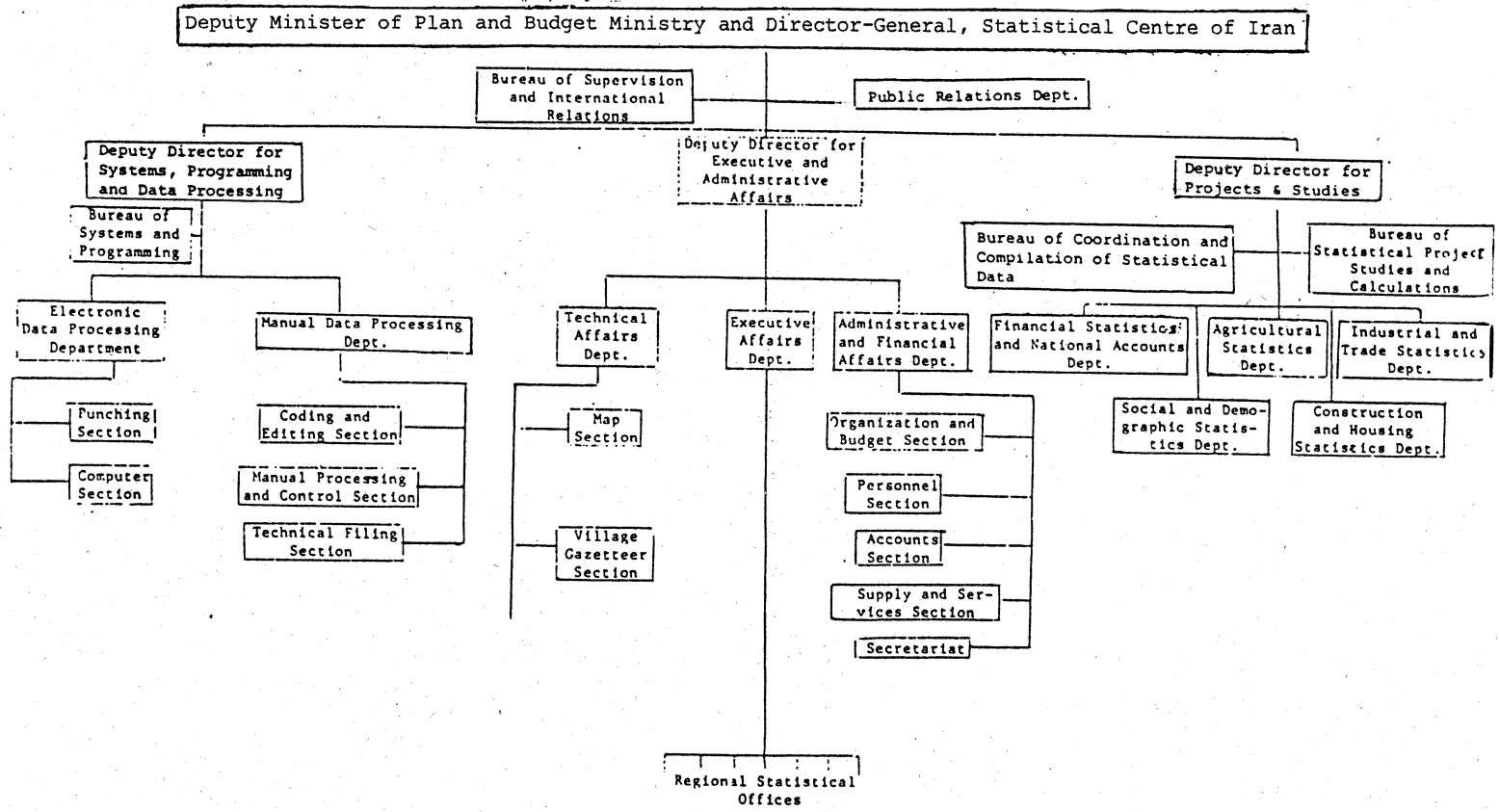
g) Drawing up statistical and census regulations and instructions.

h) Approval of the proforma tables and questionnaires proposed for statistical surveys of government organizations.

i) Establishing relations with international statistical organizations & participating in statistical conferences and seminars as well as organizing fellowship courses,within the existing regulations and with due attention to the country's needs.

The centre also conducts ad-hoc subject-matter surveys as and when necessary and collects and publishes registers on national level. The SCI thus provides planners and planning agencies of both the public and private sector with a variety of statistics to meet their various requirements.

STATISTICAL CENTRE OF IRAN - ORGANIZATIONAL CHART



B. Central Bank (Bank Markazi) of the IRI

The Central Bank includes an Office of Economic Statistics where statistical plans are prepared and conducted in economic fields.This office is responsible for preparation and analysis of economic statistics with a view to economic problems and statistical requirements of the Bank.

C. Ministry of Labour and Social Affairs

There is a " General Department of Statistics and Manpower " in this Ministry which is responsible for preparation of statistics on employment and unemployment,establishments,and economically active manpower. Manpower survey in cities conducted with the assistance of the Statistical Centre of Iran is one of the statistical activities of this General Department.

D. Ministry of Agriculture

The " General Department of Statistics and Economics " is the name of the statistical unit working in the Ministry of Agriculture. This General Department forms an extended network through its several branches in ostans. With a view to administrative duties of the Ministry of Agriculture, this statistical unit collects information about issues of agriculture and farming,orchard holding, livestock holding, agricultural machinery, water resources,etc.

All the agencies included in the first group have branches in Ostans who are also engaged in data collection. However, except for the SCI, their data collection is restricted to subjects of their field of specialization. These institutions are in close contact and keep one another informed of their respective statistical activities and exchange data in a relatively systematic manner,either in the form of books and publications or in computer tapes.

Data processing in all these agencies is computerized.

Within these organizations, duties are assigned according to the subject-matter. In addition to permanent staff, these agencies employ a number of temporary workers on contract or peace-meal basis either for data collection or for data processing as and when the need may arise. Among the eight-to nine-thousand permanently-employed workers engaged in these agencies, some 20 to 25 percent are university graduates.

Being the main statistical producers of government sector,this group actually comprises the government information system (GIS) of the country.

Statistical users are also mainly government agencies and are more or less aware of statistical implications. The efficiency of statistical user-producer relationship is satisfactory. The statistical producers try their best in meeting the statistical requirements of government users. Meeting such requirements necessitates an acquaintance with statistical needs. For this prupose, attempts were made to collect information on statistical needs of different agencies; but these attempts were sporadic, casual,and occasional. However, recently efforts were made to collect information on statistical needs in a more integrated manner and to incorporate them in the national statistical system (NSS) of the country. A more direct communication between statistical producers and users is also in view.

Training specialized manpower along with drawing suitable rules and regulations in accordance with socio-economic conditions of the following five years will be a positive step in managing statistical services of the country.

At present, manpower training courses are held for training of (1) technicians and (2) specialized statistical workers. High-level experts and statisticians are not lacking and training at this level poses no problem. But,subject-matter experts are in demand and training at this level is problematic in one way or another and some international co-operation and assistance is required for this purpose.

2. Other Statistical Producers

The second group of statistical producers includes all institutions who keep a formal record of information and data relating to their activities besides their organizational duties. Statistics is a by-product of their original activity. Almost all the executive organizations and institutions may be included in this group,such as the Ministry of Education, Ministry of Health and Medical Education, Ministry of Mines and Metals, Ministry of Industries, Ministry of Finance and Economic Affairs, Ministry of Justice, Ministry of Energy, Customs Administration of Iran, State Organization for Employment and Administrative Affairs, State Welfare Organization ,etc.

Collection of data in these institutions is less systematic and continuous and more registration of data related to the activities of the organization concerned. Except for one or two cases, group-two organizations do not have constant communications with the first group and lack the necessary data collection expertise. Therefore, managing their statistical activities is somehow difficult, although the great bulk of registers is collected therefrom. These organizations are rich sources of registers provided that they follow the same standards, definitions and concepts. The SCI has recently embarked upon a series of activities to create the necessary expertise in a number of institutions falling under this group, in order to manage their statistical work more adequately.

Organizations classified in this group do not use main-frame computers but some are equipped with personal computers (pc).

There are some regulations to govern data collection activities; but these regulations are not much in force and rather neglected.

Statistical units affiliated to this group of organizations are numerous and scattered in several geographical and administrative divisions. Only five percent of some 20 to 25 thousand statistical workers employed by this group enjoy academic training and expertise.

3. Private Sector

The third group of statistical producers are contractors and consultant engineers who conduct development activities for the public sector or who are engaged in keeping accounts or auditing. Agencies falling under this group produce data in a very limited scope to meet their own requirements. Their information system is quite rudimentary. They do not have any communications with the government statistical system in data production. They do not have any connections with educational system of the country either. They do not operate computers but avail themselves of electronic data processing facilities indirectly. Since the level of wages in this group is high, the percentage of specialists and qualified workers is accordingly high.

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As stated before, organizations in the first group are the main statistical producers. Cooperation among these agencies in planning for the execution of statistical activities is ensured through informal communication. The High Council of Statistics should, in principle and according to regulations, supervise all statistical activities; but planning is not carried out through the Council for lack of necessary expertise.

Statistical activities in planning for national projects are restricted due to financial considerations. But, statistical plans that are put into practice are based on statistical needs of user agencies, who are mostly government organizations.

Long-term planning for statistical activities is lacking except in the field of training manpower required by the national statistical system. Data collection plans are rather short-term or medium-term. Since development plans are formulated on five-year basis, it is hoped that statistical activities may also enjoy five-year planning.

In Iran, as in many other countries of the region, the larger part of information is collected through registers. In Iran, about 65 percent of data is obtained from registers and 35 percent from execution of statistical plans. Priorities for implementing such plans are determined by related expert groups and specialists.

International Statistical Relations

International relations policies of the national statistical system follow the same trend as the overall international policy of the country. International relations of the SCI may be studied with regard to (1) relations with neighbour countries; (2) relations with the countries of the region; (3) relations with other countries; and (4) relations with international, regional, and global organizations.

1. The SCI tries to maintain close integrated relations with neighbour countries in general and with Turkey and Pakistan in particular. The SCI has established direct relations with neighbour countries through exchange of publications and collection of data and information. In this way, the SCI gets informed of statistical activities undertaken and studies made by these countries. However, this relation is continued although not systematic.
2. The SCI tries to keep informed of statistical projects implemented in the region. This endeavour is persistent but not integrated.
3. Every effort is taken to establish and maintain communications with statistical agencies of other countries and statistical faculties abroad. The SCI has also established relations with some specialized libraries abroad and exchanges books and publications with them. The only barrier in this respect is the problem of language. The foreign language usually used in the SCI is English. Therefore, books and publications in other languages can not be used.

Except for the exchange of publications and occasional ad-hoc data, the SCI has no other exchange relations with other countries and does not avail itself of computer software facilities of other countries, namely disks, diskettes, tapes, etc.

4. The SCI has established and maintains relations with international, regional and global statistical organizations since its very establishment.

The SCI has been a member of the International Statistical Institute since 1973. The Director-General of the SCI is the ex-officio member of the Institute and a number of SCI statisticians and subject-matter experts have joined different ISI sections as members. They contribute

papers to the ISI biennial sessions and attend the related meetings.

The SCI has recently been invited to join the Statistical Commission of the United Nations as a member . This membership will certainly have a positive effect on future activities of the Centre.

The SCI relations with the United Nations Statistical Office is long-established,wide-spread and persistent.It keeps close communication with other U.N. affiliated organizations such as the United Nations Commission for Asia and the Pacific(ESCAP),Statistical Institute for Asia and the Pacific (SIAP), United Nations Development Programme (UNDP) and sends qualified delegations to participate in seminars,meetings and training courses held by them.The Centre exchanges information and data with The United Nations Fund for Population Activities (UNFPA), United Nations Household Survey Capability Programme (UNHSCP), International Labour Office (ILO), Food and Agricultural Organization (FAO), World Bank and International Monetary Fund(IMF). The SCI is also in touch with the Statistical,Economic and Social Research and Training Centre for Islamic Countries (SESRTCIC). The SCI also exchanges publications with the above-mentioned institutions but exchange of information on tape is not practiced.

The SCI tries to manage its overall international relations in a special order. However, long-term programmes are not drawn for this purpose;but short-term plans are formulated according to basic needs of statistical producers.

Relations of the SCI with regional offices of the United Nations other than those mentioned above are quite limited. For example,there is no communication with United Nations Economic Commission for Western Asia due to lack of relations of any kind with its headquarters. Relations with Economic Commission for Europe is occasional and indirect. There is no communication with Economic Commission for Africa; but the SCI plans to establish relations with the ECA in a very near future.

* * *

The SCI tries to make the results of most recent statistical studies,

research work and methodology available to its staff members. For this purpose,it collects publications catalogues of a variety of statistical agencies worldwide directly from the related organizations or through a number of book-suppliers abroad. Having studied these catalogues,the SCI places orders to obtain titles of interest to SCI statisticians,experts and other workers.Those publications that cannot be obtained on exchange basis or free of charge are, naturally, purchased. It,however,goes without saying that exchange restrictions do affect purchase of books and publications. However,the SCI tries to solve this problem by Unesco coupons.

* * *

The SCI believes that acquaintance with statistical activities performed,methods applied,and studies and researches made by statistical agencies of other countries will broaden its statistical outlooks and will open up new prospects. It also attaches great importance to experiences gained in different statistical fields by related institutions abroad. This is why theSCI authorities try to collect documents from other countries before launching any new statistical project.In this respect, it has enjoyed kind and sincere response from both national and international organizations and tries its best to maintain this co-operation to the best possible.

A. Organizations of Statistical Services in Japan

1. The central government of Japan has a decentralized type of statistical system in which government agencies (ministries and agencies) have their own offices engaged in various statistical activities, which include planning, designing and implementing statistical surveys and aggregating and publishing their results. These offices are classified as follows according to their different roles.

(1) Statistical offices of the government agencies except the Management and Coordination Agency (MCA) plan statistical surveys on the areas of their respective jurisdiction, manage their implementation, and aggregate and publish their results. Those surveys include, for example, the Census of Commerce, the Census of Manufactures, and the Census of Agriculture and Forestry.

(2) The Statistical Survey Department of the Statistics Bureau, MCA plans surveys for fundamental statistics, which cross over the other government agencies' jurisdiction or which are commonly demanded for, manages their implementation, and aggregates and publishes their results. The Population Census and the Establishment Census, for example, fall under this category.

(3) The other department of the Statistics Bureau, MCA is in charge of government-wide management and coordination of statistical activities. This department, namely the Statistical Standards Department (referred to as SSD or the coordinating office hereafter), examines plans of statistical surveys conducted by central and local government agencies and authorizes their implementation with modification made if necessary by laws pertaining to statistics. Besides, SSD prepares and revises various statistical standards, plans and improves institutional systems on statistics to fulfill its coordinating function.

2. The main responsibilities of the SSD in its coordinating function invested by the Statistics Law and the Statistical Reports Coordination Law are as follows:

(1) a) "Designation" and "approval" of statistics

b) Examination of survey plans and designs of "notified statistics"

c) Approval of the "collection of statistical reports"

(2) Establishing a system of standard statistical classifications, standardizing the concepts, definitions, codes and standards of indices used in statistics and promotion of their use

(3) Coordination of inter-agency statistical activities, including the preparation of input-output tables

(4) Providing subsidies for the local governments, and supervising and coordinating local government statistical activities

(5) Dissemination and propagation of statistical knowledge

(6) Coordination of international statistical affairs in Japan and provision of assistance for the training conducted by the Statistical Institute for Asia and the Pacific (SIAP).

In fulfilling these responsibilities, SSD should take the public opinion into consideration as well as refer to experts knowledge, and thus it asks opinions of the Statistics Council, a permanent advisory organ consisting of statistical scholars, producers and users, on important issues.

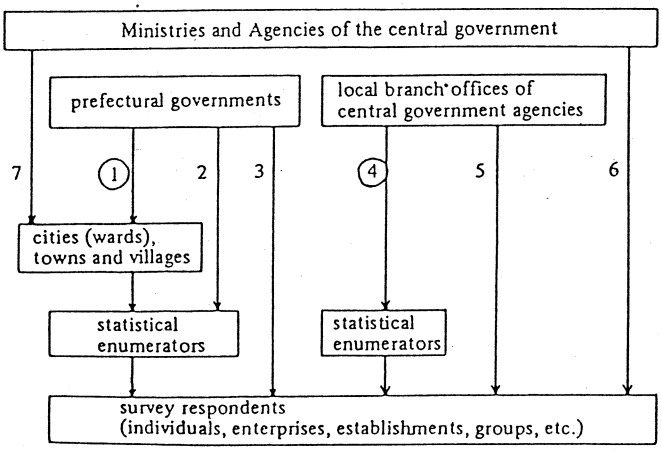
3. Offices responsible for field operation of those statistical surveys basically consist of the following two groups (at this level, the work is done in a centralized manner within each of the local areas concerned).

(1) Statistical offices of local governments (prefectures, and cities, towns and villages): Many of large-scale statistical surveys except for agricultural statistics are implemented through these offices. It is necessary to well coordinate an annual flow of these statistical surveys so that they may be implemented timely and orderly during the year. Personnel costs of these offices relevant to the surveys are disbursed from SSD, while the operational costs from the respective survey conducting agencies of the central government.

(2) Local branch offices of the central government agencies: there are such offices of this type established particularly for agricultural statistical surveys, beside which relatively small-scale surveys are implemented through the offices of this type.

In addition, statistical enumerators are often employed on a temporary basis for field operation of statistical surveys to be engaged in a grass-root contact with survey respondents for explanations of surveys, collection of questionnaires, etc.

The following chart shows various lines for the implementation of national statistical surveys. Lines 1 and 4 are the most typical among them.



B. Planning Statistical Activities and Determining Priorities

1. A plan and design of a statistical survey is first considered by the statistical office in charge of conducting the statistical survey, with the conclusion of a review which was held by the officials concerned right after the previous round of the survey, new shifts in policy objectives and other related matters being taken into consideration in the process of preparing the final draft of the survey plan and design which includes necessary revision over the previous round.

2. This draft is then brought in to the coordinating office to undergo an examination there. It is usual for the coordinating office to ask opinions of the Statistics Council over the draft so that the public opinion may be reflected as well as expert knowledge may be referred to.

3. Characteristically under a decentralized system of statistical service, such a revision mentioned in 1. is made quite frequently since, under such a system, needs for statistics are conveyed directly from an office responsible for a substantial area of public administration to the statistical office within a ministry or agency. On the other hand, that system is liable to incur lack of uniformity across ministries and agencies unless the coordinating office controls them sufficiently, as much as intentions of each ministry and agency naturally can work more strongly under the system. Thus the examination of survey plans and designs needs to be handled carefully enough.

4. If the initiative is left to the hand of each ministry and agency over the making of survey plans and designs, it may lead to that statistical requirement cannot be fulfilled on a either government-wide or international basis. Hence the necessity for the coordinating office to identify what and how statistics ought to be and lead the ministries and agencies so that such a shortcoming may be helped. In this connection, the Statistics Council made a recommendation in 1985 entitled "Medium- and Long-Term Plans for Government Statistics Activities" on such issues pertaining to government statistical activities that should be worked on toward their development/ actualization during the coming decade.

The recommendation points out that the following three are the fields where statistics should be developed:

a) Service

b) Assets

c) Environment.

To attain this target a route has emerged from the coordinating office to the survey conducting offices concerned through which the realization of what was recommended by the Statistics Council is urged. The Basic Statistical Survey on Service Industry has been thereby arranged to be conducted for the first time as of 1 July 1989.

C. Relationship with International Organization and Agencies in Statistical Matters

1. Coordination of International Statistical Affairs

SSD is in charge of comprehensive coordination in Japan also with regard to international statistical affairs and is actively promoting cooperation with international organizations, including the United Nations, and the governments of various countries in the areas of exchange of statistical information and technical assistance relating to statistics.

Japan served as a member of the United Nations Statistical Commission from 1962 to 1970 and has served that post since 1973. Japan has contributed to the international development of statistics through its activities at the Statistical Commission.

As regards ESCAP, which, a regional organ of the United Nations, aims at promoting economic and social development in the Asia and Pacific region, Japan, as a statistically developed country, has been making every possible

effort to contribute to the development of statistical activities in the ESCAP region.

As for the cooperation with the OECD, which collects and analyses statistics on national income and others, SSD has been providing statistical data and participating in expert meetings on purchasing power parities and others.

2. Participation and Cooperation in the International Comparison Programme

SSD is in charge of coordination of the ministries and agencies concerned and collection of price data for the U.N. International Comparison Programme, which aims at the international comparison of per capita GDP and real purchasing power of currencies.

In its Phase V work with reference to 1985, which was carried out as a joint program of international organizations, Japan, as a core country in the ESCAP region, extended assistance to the regional work of both OECD and ESCAP. At present, necessary preparation for the Phase VI work is under way in Japan.

3. International Technical Cooperation

The Management and Coordination Agency works together with the Japan International Cooperation Agency in respect of sending experts and receiving trainees as part of Japan's technical assistance to developing counties on a government-to-government basis. Experts in statistics have been sent to various countries from the MCA, while a number of experts in statistics have visited Japan from various countries to obtain and exchange information concerning statistical activities, systems, etc.

4. Cooperation with SIAP

The Statistical Institute for Asia and the Pacific (SIAP) was founded in June 1970 by 20 ESCAP (formerly ECAFE) member countries, including Japan, in collaboration with the United Nations and with the object of training statistical personnel and conducting statistical studies and researches of the developing countries in the ESCAP region. The number of persons trained since SIAP's inauguration up to March 1989 is 3,155.

The Government of Japan, the host government, provides SIAP with facilities and personnel, as well as makes financial contributions to SIAP through the Management and Coordination Agency (SSD in particular), which acts as the cooperating agency of the Government, in order to conduct joint training with the SIAP general courses and ADP courses as part of the group training projects of the Japan International cooperation Agency. As the fourth phase project of SIAP will come to an end in September 1990, preparation for the next phase is under way.

Attachment 1

Longer-term Plans and Priorities: "Medium- and Long-Term Plans for Government Statistical Activities"

The Statistics Council, recognizing that it is important to indicate some principles for the future development of government statistical activities, submitted a proposal entitled,"On the Promotion of Future Statistical Administration" to the Director-General of the then Administrative Management Agency on April 27, 1984.

In this proposal, it was suggested that medium- and long-term plans for making all government statistical activities well-planned and rationalized be formulated.

The Director-General requested that the Statistics Council discuss the formulation of medium and long-term plans in detail and make a draft on May 24, 1985.

In reply to this request, the Council has submitted the report entitled "On Medium- and Long-term Plans for Government Statistical Activities", to the Director-General of M.C.A. on October 25, 1985. This report clarified the problems in the government statistical activities and provided some concrete guidelines for the countermeasures to be taken for about ten years in the future, as follows.

1) Periods of conducting principal statistical surveys:

   A schedule of principal statistical surveys for the future decade was proposed in order to secure a smooth operation of the surveys and accuracy and reliability of resulting statistics.

2) Development of the statistical system conforming to new socio-economic trends:

   A guideline was proposed to improve and develop statistics on assets, service industry and environment, which are urgently needed in order for the government statistical system to conform to new socio-economic trends.

3) Securing reliability and rationalization of statistical surveys:

   A scheme was proposed for development of error-checking, data-linkage and other systems and methods in order to secure reliability and efficiency of statistical surveys, and as well for regular reviews of statistical surveys in order to reduce the reporting burden.

4) Promotion of the use of statistical data:

   Based upon a fundamental recognition that statistical data are the nation's common property to be broadly utilized by the general public, the following measures were proposed to promote the use of statistical data.

   a. Expedited publication of statistical survey results
   b. Preparation of statistical reports and supply of information on properties of statistical data
   c. Supply of statistical data for diversified analytical uses
   d. Diversified utilization of statistical data

5) Reinforcement of foundations for statistical surveys:

   The following directions for the reinforcement of foundations were proposed in order to steadily cope with the basic problems involved in government statistical activities, including the systematic improvement of statistical surveys, the maintenance of their efficiency and accuracy and the promotion of their utilization.

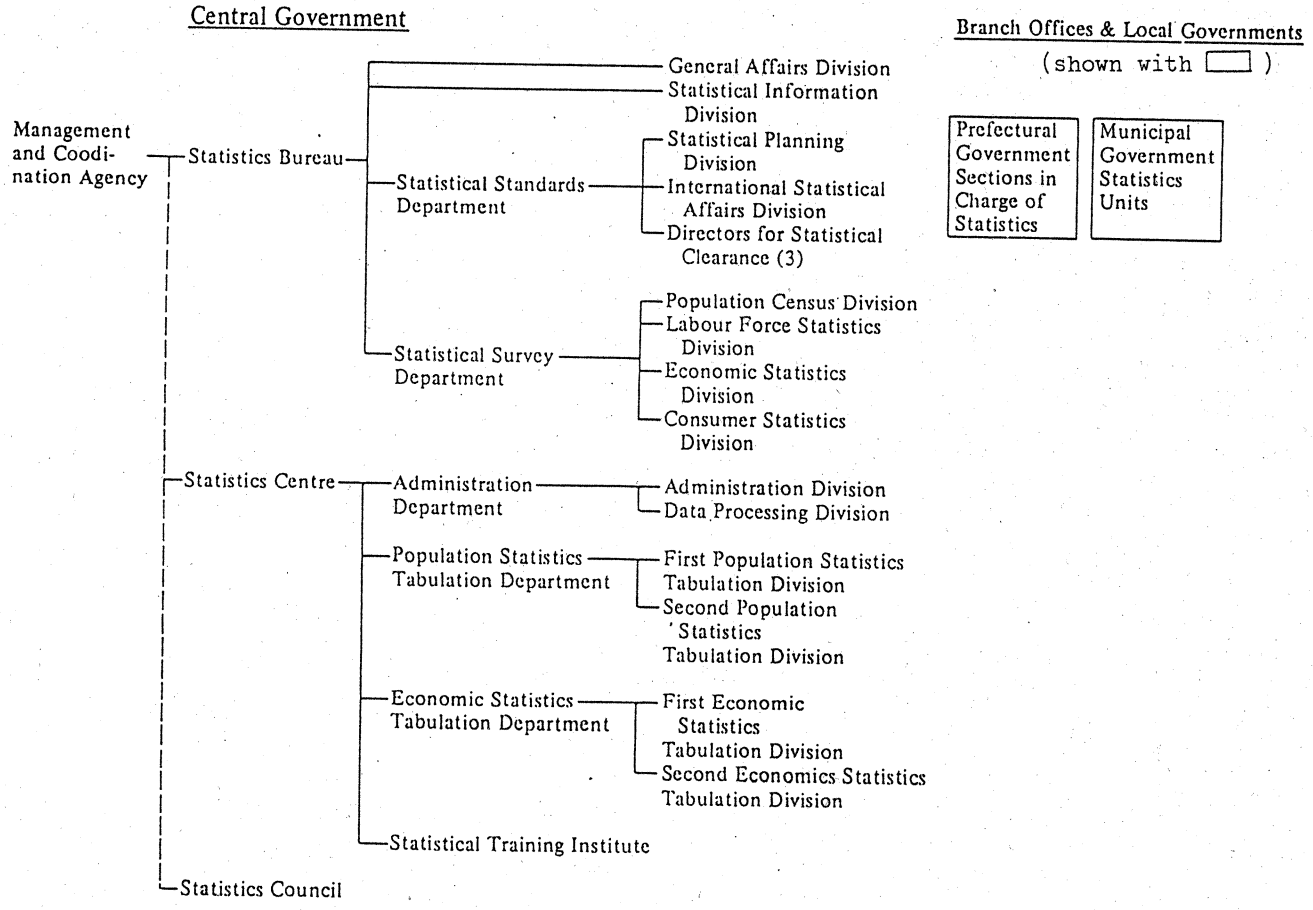
   a. Improvement of the quality of statistical personnel
   b. Privacy protection measures in statistical surveys
   c. Re-examination of legal regulation of statistical surveys
   d. Periodic re-examination of statistical standards including statistical classifications
   e. Promotion of international cooperation

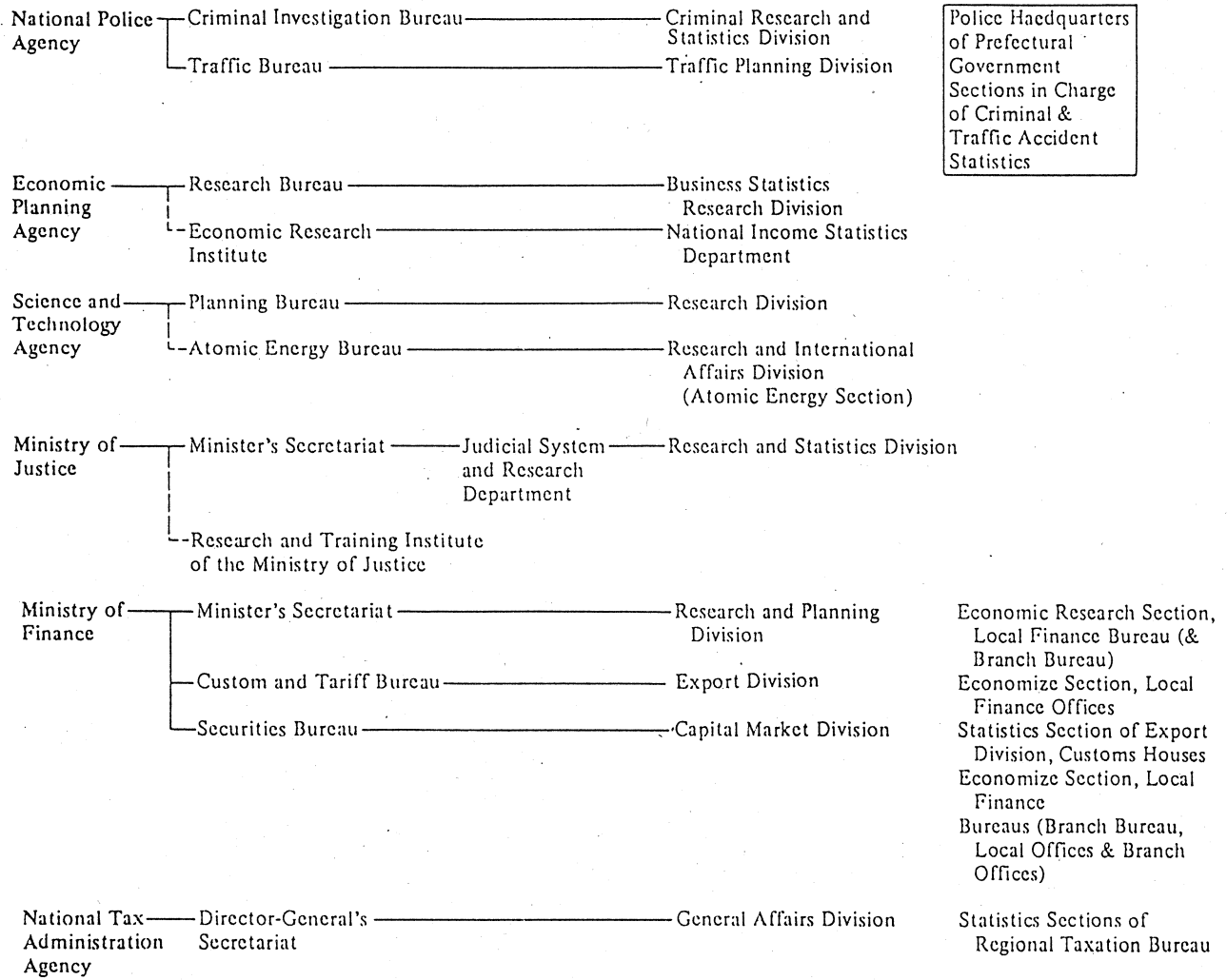
Upon the receipt of this report, the "Conference of Interested Ministries and Agencies for Promotion of the Medium- and Long-Term Plans for Government Statistical Activities" was set up, consisting of the chiefs of the statistics departments of ministries and agencies, in 25 March 1986. Under the Conference, the Managers' Meeting for the Promotion" was set up as well, consisting of the chiefs of the head divisions of statistics departments of ministries and agencies. The Conference and the Managers' Meeting have been working on comprehensive schedules and measures to realize what the report recommended.

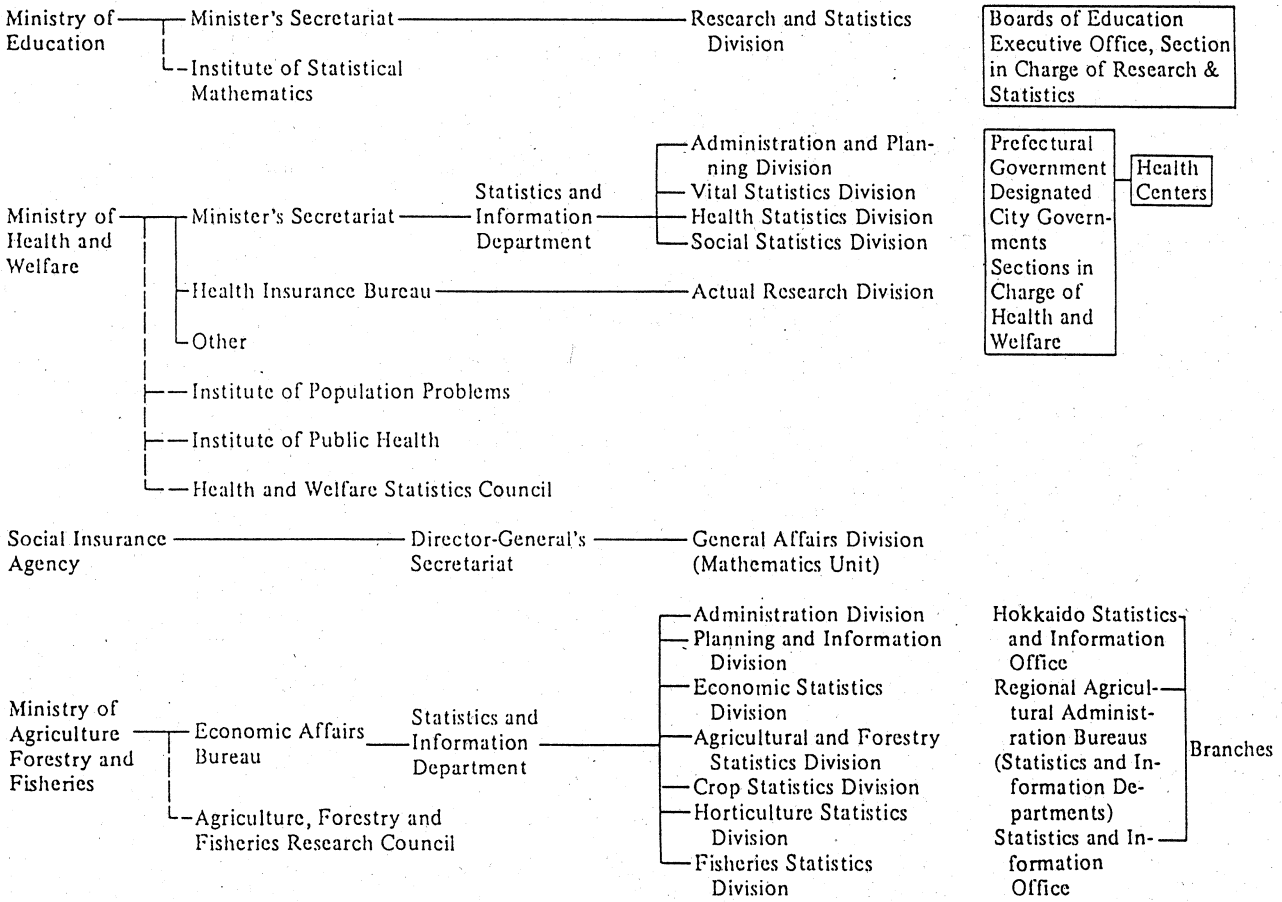
As regards statistics on assets and service industries in particular, the inter-office councils of interested ministries and agencies for development of statistics on assets and on service industries were set up respectively by the Managers' Meeting, and have been discussing practical matters on the respective issues.
As regards diversified utilization of statistical data, the report recommended particularly a measure to provide statistical data to the private sector. In response to this, the Committee on Data Processing, one of the working committees of the Statistics Council, prepared a guideline for the provision of statistical data to the private sector. Furthermore, the Statistics Bureau of Management and Coordination Agency officially made a request to the statistics departments of ministries and agencies about the promotion of the issue in their respective jurisdications. Through these efforts, a unified and systematic foundation toward an early realization of the full-scale provision of statistical data to the private sector has been established.
Similar efforts more or less have been under way in the other fields as well, toward the fulfilment of the requirements proposed by the report.

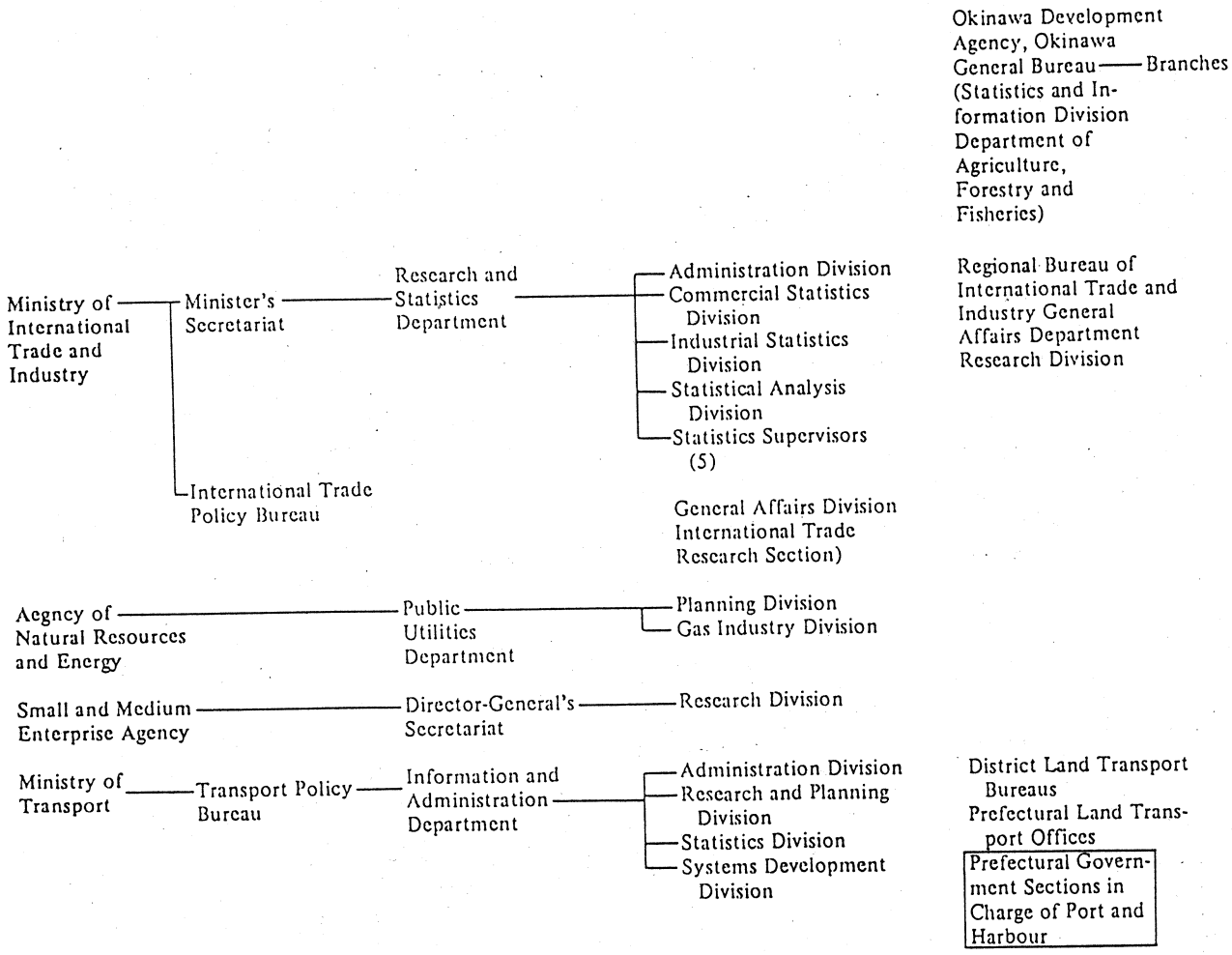
In connection with and addition to the Midium- and Long-term plans, it should be noted here that, although the government is the main supplier of statistics in Japan as in many other countries, more and more statistics covering various fields are being produced by the private sector, particularly the business world, to supplement the official statistics.
Considering this situation, as it is proposed by many scholars and institutions concerned in various occasions, studies should be made on possible directions and methodologies to connect the official and private statistics in such a manner as to develop Japan's overall statistics and statistical system in the future.

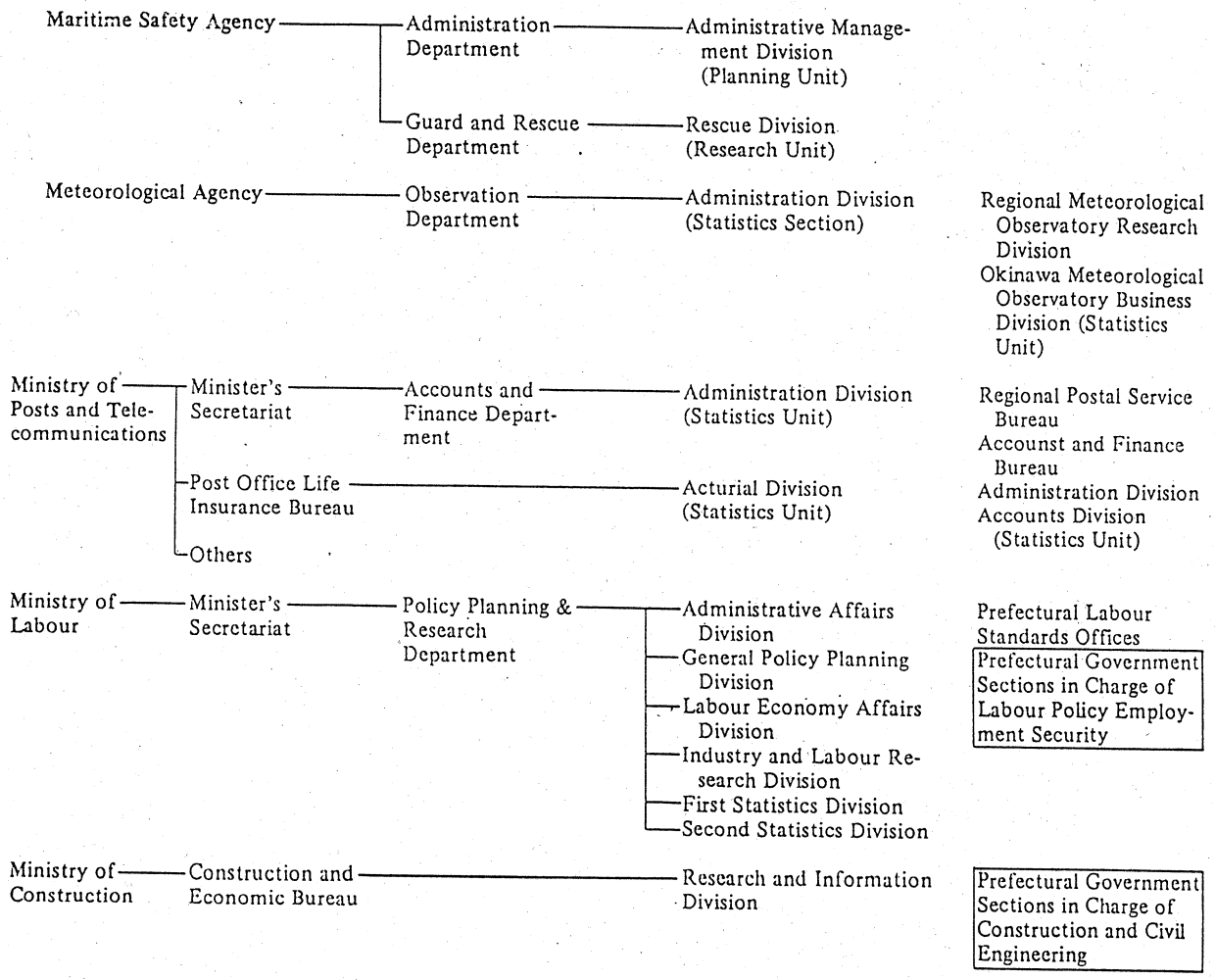
Chart of Government Statistical Organizations

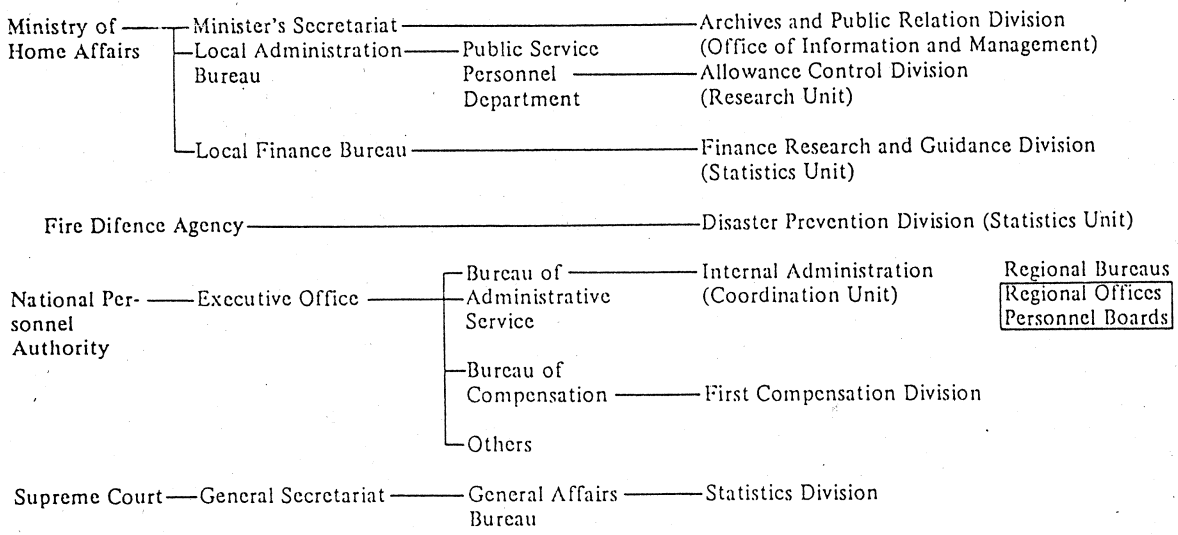



National Police Agency
Criminal Investigation Bureau
Criminal Research and Statistics Division
Traffic Bureau
Traffic Planning Division
Police Haedquarters of Prefectural Government Sections in Charge of Criminal & Traffic Accident Statistics
Economic Planning Agency
Research Bureau
Business Statistics Research Division
Economic Research Institute
National Income Statistics Department
Science and Technology Agency
Planning Bureau
Research Division
Atomic Energy Bureau
Research and International Affairs Division (Atomic Energy Section)
Ministry of Justice
Minister's Secretariat
Judicial System and Research Department
Research and Statistics Division
Research and Training Institute of the Ministry of Justice
Ministry of Finance
Minister's Secretariat
Research and Planning Division
Economic Research Section, Local Finance Bureau (& Branch Bureau)
Custom and Tariff Bureau
Export Division
Economize Section, Local Finance Offices
Securities Bureau
Capital Market Division
Statistics Section of Export Division, Customs Houses
Economize Section, Local Finance
Bureaus (Branch Bureau, Local Offices & Branch Offices)
National Tax Administration Agency
Director-General's Secretariat
General Affairs Division
Statistics Sections of Regional Taxation Bureau


Ministry of Education
Minister's Secretariat
Research and Statistics Division
Institute of Statistical Mathematics
Boards of Education Executive Office, Section in Charge of Research & Statistics
Ministry of Health and Welfare
Minister's Secretariat
Statistics and Information Department
Administration and Planning Division
Vital Statistics Division
Health Statistics Division
Social Statistics Division
Health Insurance Bureau
Actual Research Division
Other
Institute of Population Problems
Institute of Public Health
Health and Welfare Statistics Council
Prefectural Government Designated City Governments Sections in Charge of Health and Welfare
Health Centers
Social Insurance Agency
Director-General's Secretariat
General Affairs Division (Mathematics Unit)
Ministry of Agriculture Forestry and Fisheries
Economic Affairs Bureau
Statistics and Information Department
Administration Division
Planning and Information Division
Economic Statistics Division
Agricultural and Forestry Statistics Division
Crop Statistics Division
Horticulture Statistics Division
Fisheries Statistics Division
Agriculture, Forestry and Fisheries Research Council
Hokkaido Statistics and Information Office
Regional Agricultural Administration Bureaus (Statistics and Information Departments)
Statistics and Information Office
Branches


Okinawa Development Agency, Okinawa General Bureau
Branches
(Statistics and Information Division Department of Agriculture, Forestry and Fisheries)
Ministry of International Trade and Industry
Minister's Secretariat
Research and Statistics Department
Administration Division
Commercial Statistics Division
Industrial Statistics Division
Statistical Analysis Division
Statistics Supervisors (5)
Regional Bureau of International Trade and Industry General Affairs Department Research Division
International Trade Policy Bureau
General Affairs Division International Trade Research Section)
Aegncy of Natural Resources and Energy
Public Utilities Department
Planning Division
Gas Industry Division
Small and Medium Enterprise Agency
Director-General's Secretariat
Research Division
Ministry of Transport
Transport Policy Bureau
Information and Administration Department
Administration Division
Research and Planning Division
Statistics Division
Systems Development Division
District Land Transport Bureaus
Prefectural Land Transport Offices
Prefectural Government Sections in Charge of Port and Harbour


Maritime Safety Agency
Administration Department
Administrative Management Division (Planning Unit)
Guard and Rescue Department
Rescue Division (Research Unit)
Meteorological Agency
Observation Department
Administration Division (Statistics Section)
Regional Meteorological Observatory Research Division
Okinawa Meteorological Observatory Business Division (Statistics Unit)
Ministry of Posts and Telecommunications
Minister's Secretariat
Accounts and Finance Department
Administration Division (Statistics Unit)
Regional Postal Service Bureau
Accounst and Finance Bureau
Administration Division
Accounts Division (Statistics Unit)
Post Office Life Insurance Bureau
Acturial Division (Statistics Unit)
Others
Ministry of Labour
Minister's Secretariat
Policy Planning & Research Department
Administrative Affairs Division
General Policy Planning Division
Labour Economy Affairs Division
Industry and Labour Research Division
First Statistics Division
Second Statistics Division
Prefectural Labour Standards Offices
Prefectural Government Sections in Charge of Labour Policy Employment Security
Ministry of Construction
Construction and Economic Bureau
Research and Information Division
Prefectural Government Sections in Charge of Construction and Civil Engineering



Note: 1. The list is made up as of 1st July 1984.
2. [ ] indicates the organ which belongs to the local autonomous entity.

ORIENTATION OF NATIONAL STATISTICAL SERVICES FOR THE 1990S

In the Republic of Korea

1. Status and Process of Development of National Statistical Services

1.1 The Process of Development of National Statistical Services

1) The process of development of Korea's national statistical services has thus far had two chronological periods:

One is of the activities which took place prior to 1960, just before implementation of the first National 5-year Economic Development Plan, and the other of 1960 and after. Previous to 1960, the Korean Government concentrated on population statistics such as the Population Census and demographic statistics, while private organizations including the Bank of Korea produced a wide range of economic statistics involving the mining and manufacturing industry and farm household expenditures, as well as compiling the productions indexes to supplement the official statistics.

2) The national statistical services had an epochal turning point in 1961, when the Korean Government established the Economic Planning Board to push forward with the systematical economic development of the country and also removed the central statistical office from the Ministry of Home Affairs to support the economic development plans based on the improved system of the national statistical services.

3) The organizational structure of the national statistical services in Korea had developed in a decentralized system in which the statistical programs are managed and operated under the authority of several government ministries. For this reason, in 1962, when economic development began, the Statistics Act was promulgated to charge the central statistical office namely the National Bureau of Statistics (NBOS), with the responsibility of coordinating the statistical activities of the various ministries and improving the quality and timeliness of statistics.

In addition, the Statistical Committee, consisting of suppliers and users of statistics along with members of the major statistical agencies of the governmental and private sector, was established to review the overall program of economic and social statistics and make recent recommendations. Thereby, the National Bureau of Statistics provided the base upon which the system for systematical development of the national statistical services was established.

4) Over the past 30 years, Korea's statistical activities have witnessed remarkable progress in terms of statistical operations, while the national statistical system for producing statistical series has been unable to proceed in the desirable direction, having given way to the advent of two hypertrophic organizations, that is, the National Burerau of Statistics of the Economic Planning Board, and the Office of Agricultural and Fishery Statistics of the Ministry of Agriculture, Forestry and Fisheries.

5) A number of statistical agencies under the authority of several government ministries have had their responsibilities changed, leaving only four ministries at present which have a higher than division level statistical organization.

This has resulted in the National Bureau of Statistics, the central statistical agency, being predominant not only in demographic statistics but also a wide range of economic statistics involving production and distribution statistics, as well as price statistics.

NBOS had four divisions and 230 personnel in the 1960's, while there are currently ten divisions with 463 staffmembers and a network comprising fourteen local branch offices employing 840 personnel charged with the duty of collecting data. On the other hand, the Office of Agricultural and Fishery Statistics has four divisions with 81 staffmembers and a network consisting of nine local branch offices and 141 sub-branch offices employing a total of 2,023 full-time workers.

The other two statistical organizations, of the Ministry of Labor and Ministry of Health and Social Affairs, are rather weaker in system in view of the workload by division level statistical organizations.

6) As a result, Korea has lost the function of decentralized statistical system, and desperately needs rearrangement of the national statistical system as is needed to meet the changing social environments, as well as to have the statistics required by each Ministry developed by the National Bureau of Statistics.

1.2 Operations of National Statistical Agencies

7) Types of statistics which are gathered by statistical agencies as authorized by the Statistics Law currently number 342, made up of 163 "survey statistics" and 179 "report statistics". The economic development administration in Korea has thus far been principally responsible for development of economic statistics with 61% of economic statistics and 60% of the national level statistics in accordance with the overall nation's development. Accordingly, the social statistics and region or district level statistics fall greatly lacking.

Table 1-1 Types of Statistics

	Total	Survey Statistics	Report Statistics
Total	342	163	179
Governmental	243	82	162
Private	98	81	17

Table 1-2 Subject Matter Areas

Field	Total Statistics	Survey Statistics	Report Statistics
Total	342	163	179
• Population	10	6	4
• Employment & Wages	24	22	2
• Agriculture & Fisheries	42	13	29
• Mining & Manufacturing	39	18	21
• Construction & Trasnportation	45	9	36
• Wholesale & Retail and Foreign Trade	15	6	9
• Business Forcasts, Enterprises Management	20	20	-
• Prices, Household Economy & Housing	22	16	6
• National & Regional Income	9	8	1
• Finance, Insurance & Service Businesses	16	5	11
• Health, Social Affairs & Others	99	40	60

8) Presently, agencies for compiling statistics which are approved by the Minister of Economic Planning Board number in 86, with 41 belonging to the Government and 45 to the private.

The statistical organization for local governments consists of the statistics division in 15 provincial level (Shi and Do) and the statistics section in 271 country level (Shi, Ku and Kun), and also appoint one staff who is usually charged with responsible for data collecting in 3,498 town level (Eup, Myun and Dong), those which are play the role of infrastructure for central governmental departments as well as the statistical agencies for themselves.

Table 1-3 Statistical Organizations

Organizations	Number of Agencies	Manpower	Number of Statistics
Total	86	3,719	342
Central Government	26	3,193	227
• Economic Planning Board	1 bureau, and 10 divisions	981	29
• Ministry of Agriculture, Forestry & Fisheries	1 officer in charge and 4 divisions	2,104	34
• Ministry of Labor	1 division	84	21
• Ministry of Health & Social Affairs	1 division	24	35
• Others	22 agencies		
Local Government	15 cities & provinces	143	8
Private	45 agencies	383	107
• Bank of Korea	1 department and 4 divisions	157	16
• Korea Development Bank	1 division	52	3
• Korea Chamber of Commerce and Industry	2 departments and 6 divisions	16	7
• Others	41 agencies	158	81

2. Change of Domestic & Overseas Circumstances and Counter-Measures

2.1 Conversion of National Strategy for Development and Advent of Information Age

9) Beginning in the 1980's, the national strategy emphasis on development changed from economic growth to the general social development and equibrium among the regions with the idea of growth and balance. Therefore, demand for statistics of social affairs has greatly increased in order to promote social balance and increased in the standard of living quality.

10) Diversification of the economy and society, along with rapid changes in the industrial structure has made the government, corporations, research centers, academic world, and others require a wide range of statistics for various projects as well as every field of business.

11) Development of an updated information industry has naturally brought about great change to the management system of statistical information, thereby requiring an organization of computerized networks for collective control of the statistics by commonly utilizing the organized and general managed statistical information. Accordingly, beginning in the 1980's, the central organization for statistics, the National Bureau of Statistics, developed a data-base, accumulating 630,000 series of statistical data. Formation of the networks among the statistics production organizations, which is connected with the national administrative computerization, remains to be seen as an important subject.

12) Since the 1960's, many types of statistics have been produced in great number in order to implement the development administration, while neither the professional manpower nor organization have been able to suffice for the need, and a lack of the people's recognition of statistics has caused many problems in terms of quality of the statistics to be solved.

2.2 Counter-Measures to Meet Changing Circumstances

13) Korea is faced with the problem of reorganizing the national system of statistics with development of new kinds of statistics so that the national fundamental statistics may be produced under a consistent project, while the existing statistics need to be improved to promptly cope with the information society advented in the updated industrial society in the world's trends that Korea has achieved through its development strategy over the past 30 years.

3. Orientation of the National Statistics for the 1990's

3.1 Development of Statistics and Improvement of Its Quality

14) We should improve statistics equally by developing the statistics to estimate relative poverty, health and medical facilities problems which is newly emerging as socioeconomic issue. Also it is necessary for us to strengthen computerization of administrative data in order to preclude deterioration in quality of the statistics caused by the increasing evasiveness to responding to the inquires for survey.

15) Innovation of the techniques in producing statistics to strengthen compilation of the secondary statistics, which has so far emphasized the importance of the primary statistics, and introduction of the statistical analysis technique like the general analysis on population would make the users of statistics including policy makers utilize them easier. For instance, analysis of a certain matter would be easier with a data-base connected with a package for general analysis of the statistics such as SAS and SPSS.

16) The outcome of Establishments Census in 1991 and the Population and Housing Census in 1990 would help reform the sample of every sample survey and the base years for approximately ten indexes will be promptly reformed for a better reflection of the realities of life.

17) Prompt utilization of the data could be realized with conversion of data-input techniques from manual input to mechanical sensor. Techniques of surveys should be gradually changed to a reporting system from canvassing system which has caused infringement on privacy and unnecessary misunderstanding, thereby making the most of the administrative statistics connected with the computerized national administrative networks that have been in existance since the latter part of the 1980's.

18) The regional scientific administration should be supported by developing regional statistics -the basic data for various regional projects- to the balanced development of regions.

3.2 Rearrangement of the National Statistical System

19) The decentralized system of national statistics, which has already lost its benefit, will be gradually changed to the centralized system, with the National Bureau of Statistics to be reorganized to an enlarged office-level organization. The professional manpower short in number will be effectively employed, and confusion caused by redundant statistics and lack of budget and manpower will be prevented.

20) The regional statistical research system divided into three parts will be unified to come up with a new development of statistics, while the regional statistical system should be strengthened in order to be formulated national statistics by summing regional data.

21) The enlarged data-base of the National Bureau of Statistics and the formation of the nation-wide networks among the central and local governments, along with all the research organizations will make the best use of the statistics.

22) A national statistical organization, the offfice-level statistical organization to be made, will have a statistical training organization established to handle the professional education for the existing manpower and to produce new statistical manpower.

23) The introduction of a professional exchange-duty system among academia research organizations and statistical organizations will be able to help strengthen an education/industry system resulting in better cooperative dialogue between the users and producers of statistics. On the other hand, developed statistical theories will be introduced to actual jobs, the problems which will be overcome, thus enhancing the quality of statistics.

Statistics in Lao People's Democratic Republic

BACKGROUND

Lao.P.D.R is a landlocked and least developed country with a small and widely scattered population.At present,the country is undergoing substantial changes in the way its economy is planned and controlled. The former practices is now being replaced by the system of New Economic Mechanism. This reflects the requirements of the further stage of the socio-economic development of the country . As planning is being considered as the start of all socio-economic activities,the requirements for the accurate,complete,timely statistics are obvious for all concerned authorities,especially in the light of the New Economic System.

The government of Lao.P.D.R has placed high importance to the statistical services and the State Statistical Center, is being entrusted with the tasks of compiling and processing of statistical informations and building the statistical capabilities in the country as a whole.So far it can respond to the needs in terms of statistical data of the higher policy making,planning agencies and other sectors ,in order to monitor control and evaluate the implementation of the development plans and form a basis for the preparation of the short and long term plans and programmes.By keeping pace with the growth of the national economy , the requirements for the series of statistics are gradually increasing.

PAST AND ACTUAL ACTIVITIES

Apart from the overall endeavours to improve the col-

lection of statistical data ,through the undertaking of the experimental operations in reporting statistical informations from grass-root levels which in effect revealed the shortcoming in the existing reporting system:i.e unqualified statistical staff at the grass-root levels,the State Statistical Center,with the assistance from U.N.F.P.A ,is carrying on a four and half years project in the field of democraphy in order to improve the national vital registration system. This project is consisted of a baseline survey,already done in July 1988,and a series of follow-up surveys in 300 sample villages in every sixth month , paralelling with the improvement of civil registration system and it is expected to provide the country with demographic data on fertility, mortality,...and more importantly improvements in vital registration. In this tasks we have a valuable assistance from ESCAP in the form of the regional adviser resources.

As already mentioned ,the State Statistical Center has the responsibility of consolidating and publishing data obtained from the other government agencies,usually through the village/district/province reporting system. It publishes an annual publication,namely:Basic Data about the Social and Economic Development which contains almost all official statistics available to the State Statistical Center.

In the efforts for statistical capability building, during the last two years, the State Statistical Center has conducted three short training courses for the statistical staff at province/district levels in Luangprabang,Champassack and Vientiane with the assistance from ESCAP and SIAP.Also a number of statistical officials from the State Statistical Center and other Ministries have attended and are attending training,workshop,study tours abroad such as in JAPAN (JICA, SIAP),THAILAND(AIT),USSR,VIETNAM,FGR(MUNICH CENTER),so on..

FURTHER PROGRAMS

In order to address the deficiencies in the qualifications of statistical personel at different levels and to remove suspicion about the quality of the statistics,fortunately,with the assistance from UNDP.,the State Statistical Center is about to implement a four and a half years project for strengthening national capabilities in statistics and microcomputing . This project aims to upgrade statistical skills at national and local levels,generate new economic data and improve existing series, develop microcomputing proficiency . This project will no doubt help the country in a further step of improving statistical capabilities.

We shall implement a technical assistance from the ADB for improving agricultural statistics beginning next year.

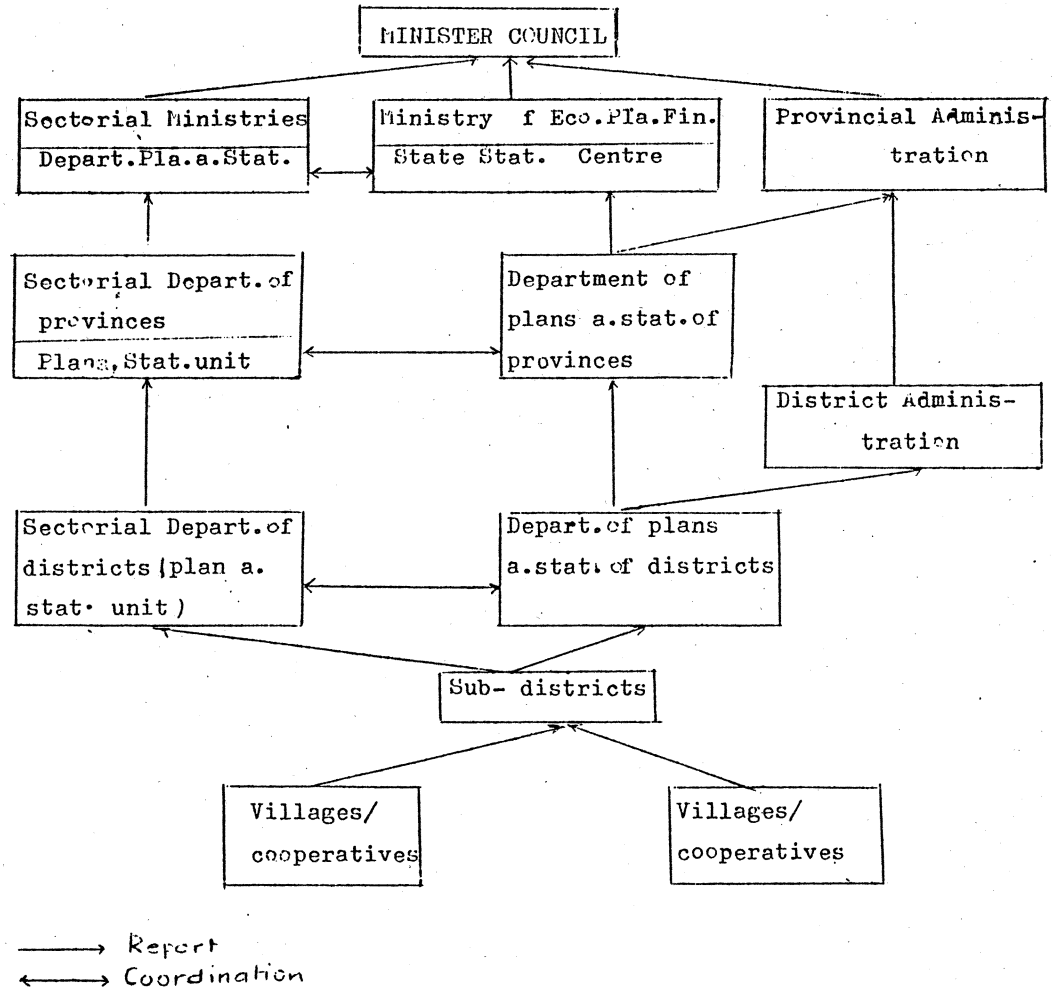
An important assistance from the EEC and the french government in the fields of training will be in place for the coming year.

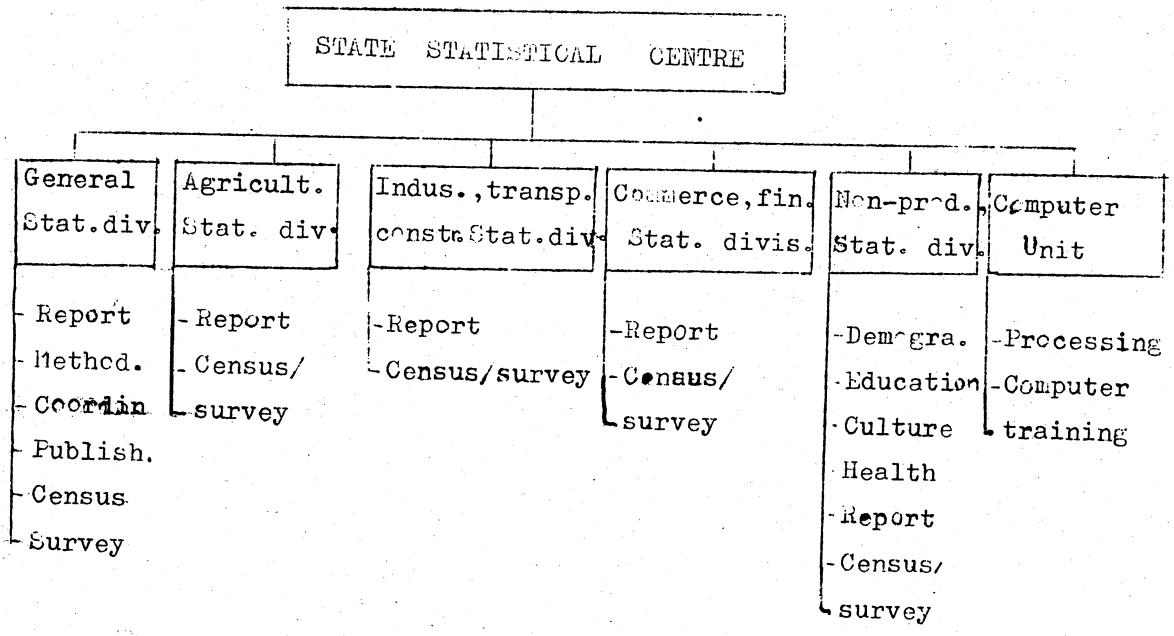
Besides ,in the light of the New Economic Mechanism,the government has placed emphasis on a substantial improvements in its statistical capability by reorganizing the institutional structures of the statistics services by placing the State Statistical Center directly under a Vice-Minister and increasing its authority to co-ordinate data collection from other ministries and government enterprises.Due to the fact that a limited number of cadres are staffed to, there is a study on an organisation of the State Statistical Center by functions rather than by subject matter as it used to be.This will consist of two major groups : one is the data collection group and the other is the summarizing group.The chart of the existing organizational arrengement is also attached herewith.

The awareness of the Government toward statistics can be seen further in its commitments to the constuction of Consumer Price Index , reclassifying of the economic sectors and establishing the National Account Section.

In summary , the statistical system in Lao P.D.R has significant developed during the recent past,but from a very low base.Consequently,the government policy in statistics is to strengthen it through human resources development at different levels in the whole country,including upgrading the ability of the State Statistical Center so as to become a competence center in statistical techniques,which means the strengthening in equipement and building also . This is becoming then backbone for the overall development of statistics in the whole country.

ACTUAL STATISTICAL SYSTEM
IN LAO P.D.R.




STATE STATISTICAL CENTRE
General Stat.div.
- Report
- Method.
- Coordin
- Publish.
- Census
- Survey
Agricult. Stat. div.
- Report
- Census/ survey
Indus., transp. constr. Stat.div.
- Report
- Census/survey
Commerce, fin. Stat. divis.
- Report
- Census/ survey
Non-prod. Stat. div.
- Demogra.
- Education
- Culture
- Health
- Report
- Census/ survey
Computer Unit
- Processing
- Computer training

1. THE ROLE OF THE NATIONAL STATISTICAL OFFICE IN THE 1990'S IN THE CONTEXT OF SOCIAL AND ECONOMIC PRIORITIES.

An important set of considerations affecting the Malaysian Statistical System are the special and heavy demands placed on the system to provide information that can be used to monitor the attainment of quantified economic and social objectives of the country. In Malaysia these objectives currently have been delineated in the New Economic Policy (NEP) and focus on overall achievement as well as ethnic balances in labour market opportunities, wealth distribution, eradication of poverty and equitable incomes. Monitoring gains and outcome in these areas is a prime concern of the policy makers and the Economic Planning Unit. Further, the demand and interest in statistics both in the public sector as well as the private sector are continuously on the increase with the rapid growth of the economy. With some specialised and complex issues to be taken into account in the national planning process, the need for a far more wider data and information base undoubtedly is to be expected. There has always been a growing demand lately to have regional and small area statistics for more localized and "bottom-up" planning.

Given this scenario it is vital for the producers of statistics not only to react but also to proact to such increasing and widening expectations of users both in the private and public sectors.

The Department of Statistics (DOS) still remains the main government agency for statistical collection and dissemination even though in the past decade other ministries, departments and agencies including the Central Bank have initiated data collection activities

on their own. It is both inevitable and appropriate for these agencies to have set up their own statistical and research units to collect data that are specially tailored to their particular needs.

The Department of Statistics has been increasingly aware of the growing disparity between the production of statistics and the demand for data. Indeed, the situation has become critical in recent years. In view of this DOS has started to review its role in consultation with other relevant central agencies vis-a-vis the growing demand for data, the existing gaps and weaknesses and existing resources. In the course of the review DOS has already identified a number of significant data gaps and shortfalls in resources.

It is pertinent to note that the World Bank study on "The Statistical System in Malaysia which was completed in 1984, had highlighted among others, "..... that DOS does not have a balanced portfolio of activities at this time. Its work on the national accounts and the balance of payments has weakened and is inadequate relative to current needs".

In the meantime, Majlis Dagangan Tak Ketara Malaysia (Council On Malaysian Invisible Trade) has identified data gaps and weaknesses in existing data which have hindered the Council's work, especially in monitoring the services account of the Balance of Payments. More recently, the Treasury has informed the DOS of the need for Quarterly Preliminary National Accounts not only for the timely assessment of the movements in the economy but also to enable the government to take appropriate steps toward overcoming various economic problems that may

arise from time to time. The Treasury has also indicated the need for a more detailed data on private investment to enable a proper analysis of the performance of the private sector.

Having taken cognizance of the result of the review undertaken by DOS and studies undertaken by other agencies, DOS has accordingly taken appropriate steps to establish priority areas for development as part of its "Action Plan" for the next five years. In this regard, the Economic Planning Unit and other main users and DOS have held a series of meetings to draw up the programme of development work. Three important aspects have been taken into consideration when drawing up the programme of development work :-

(a) to continue the emphasis on the production of statistics required for NEP purposes and to further strengthen the existing data base in anticipation of data requirements beyond 1990. Ethnic data on regional basis will also be provided wherever possible. For the programme of eradication of poverty, surveys on household income and amenities, especially for the poverty target groups will continue to be carried out from time to time.

(b) to strengthen and enlarge the data base for macro-economic statistics, including the development of a suitable range of economic indicators. This, inter alia, would include the following:

(i) Quarterly Preliminary National Accounts and Quarterly Balance of Payments;

(ii) Social Accounting Matrix (to be done jointly with EPU);

(iii) Income-Outlay Accounts and Capital Finance Accounts;

(iv) Flow-of-funds accounts;

(v) Gross Domestic Product by Industrial Origin in Current Prices;

(vi) Investment by Economic Activities;

(vii) Public and Private Consumption by Objects;

(viii) Capital Stocks for Selected Industries;

(ix) Census of Wholesale and Retail Trades;

(x) Economic Indicators (including the reweighting of index of industrial production and producer price index and the compilation of leading, coincident and lagging indicators); and

(xi) Household and Population Statistics (in particular the forthcoming "Census of Population and Housing", small-scale special sutdies on labour force and manpower and the conduct of a Household Expenditure Survey).

(c) to increase the regional data base.

The proposed programme is very comprehensive and is expected by and large to meet the data requirements of major user agencies for the next decade. However, it must be stressed that the successful implementation of this programme would require adequate and suitable resources, both in terms of manpower and equipment. The comprehensive programme will, however, impose a severe strain on the Department's existing resources both in terms of manpower and equipment. In this regard, DOS requires the strong support of the relevant central

agencies to provide DOS with the necessary resources required to successfully implement the proposed programme. In addition, sufficient and appropriate consultancy services will be required to develop new areas in which DOS has very little experience. At the same time, the upgrading of existing computer facilities in DOS is essential.

2. PLANNING MECHANISM FOR DRAFTING STATISTICAL DEVELOPMENT PLANS AND THE FRAMEWORK OF PRODUCER/USER RELATIONS IN DETERMINING STATISTICAL PRIORITIES

In the past, statistical development plans and statistical priorities were determined by and large informally on an ad hoc basis among the government agencies. However, with the recent establishment of the "Statistical Council" and the "Main User Committee" this task has been formalised. The task of the Statistical Council can be summed up as follows:

(i) Determine the guidelines and policy for the Department of Statistics Malaysia in the implementation of its responsibilities;

(ii) Co-ordinate activities related to the collection, dissemination of statistics carried out by government agencies; and

(iii) Provide guidelines with the aim to achieve an effective national information system.

The Council's chairman is the Chief Secretary to the Government The members of the Council are the Director-General of Economic Planning Unit,; Secretary-General, Ministry of Finance; Director-

General, Public Service Department; Governor, Central Bank of Malaysia and the Chief Statistician of Malaysia.

The function of the Main User Committee is to assist the Statistical Council in the following areas:

(i) To identify and define statistical priorities and requirements in line with the current planning needs in order to enable the Department of Statistics to operate smoothly and efficiently;

(ii) Co-ordinate at the technical level, the collection and dissemination of statistics by government agencies in order to ensure among others:-

(a) the utilization of available resources efficiently and effectively;

(b) the use of standard concepts, definitions and classifications;

(c) the use of appropriate and effective methods in the collection and production of statistics;

(d) the minimisation of duplication in the statistics gathered; and

(e) the production of quality and timely data.

(iii) set up technical working groups for specific statistical activities.

The Chairman of the "Main User Committee" is the Director-General, Economic Planning Unit. The members are the Chief Statistician, Department of Statistics, Malaysia and representatives

from the Ministry of Finance, Central Bank of Malaysia, Ministry of Trade and Industry, Ministry of Labour, Ministry of Agriculture, Ministry of Education, Ministry of Health and Malaysian Administrative Modernization and Management Planning Unit (MAMPU).

The setting up of the Statistical Council and the Main User Committee is most timely as in the last decade or so the statistical system in Malaysia has become more decentralised. There was an urgent need to co-ordinate the proliferation of statistical activities, not to forget the need to set statistical development plans and priorities in a formal manner given the limited physical and human resources available in the country for this purpose. The DOS on its part has gone to great length to identify the priority areas in statistical development and has advised the Statistical Council and the Main User Committee in formulating the statistical priorities.

3. Legislation to Collect Data and the Issue of Privacy

3.1 Legislation to Collect Data

The Department collects various economic and social statistics from households, establishments, enterprises and institutions chiefly through surveys and censuses conducted either monthly, quarterly, biannually or annually. The collection was initially made under the provisions of the Statistics Ordinance 1949, which was subsequently repealed and replaced by the Statistics Act, 1965. The Act empowers the Department "to collect and interpret statistics for the purposes of furnishing information required in the formation or carrying out of government policy..... or for meeting the needs of trade, commerce, industry or agriculture.....".

The Act is essentially concerned with two aspects: one the compulsory aspect, that is, the power the government asserts through the Department on the reporting unit; and the other, the confidentiality aspect, that is, the guarantee it provides the reporting unit in safeguarding the information so collected. It is important to note that the Act since 1965 has never been amended and continues to be in force in its original form. It is felt however that the real authority of the Department lies in the goodwill, competence and tact through which it obtains the cooperation of the respondents.

Over the past three decades the Department has managed to establish and maintain a very sound system whereby the respondents willingly, perhaps out of their sense of duty, comply with the requirement to furnish returns. The Department never had any occasion to institute any legal proceedings on respondents for non-compliance.

As such it is felt that the Act in its present form is more than adequate to meet the requirements of the Department for the next decade. Besides it is to be appreciated that while the Act defines the framework within which the Department collects data, the enforcement of the Act, whenever necessary may not be without difficulty. The expertise of the legal agency in the government has to be sought each time a defaulting respondent has to be brought to court. Again compelling a respondent to submit returns through court may not assure that the Department would receive the correct data.

3.2 The Issue of Privacy.

The collection of data from individuals, households, corporate enterprises and also from unincorporated enterprises may sometimes be construed to infringe on their privacy. If furnishing of such information means "to supply information which would disclose any secret process or other trade secret", then the Act forbids the Department to require anyone to supply such information. Otherwise it is mandatory for all to submit the information, even if they consider it private, and in exchange the Department gives a guarantee that "..... no statistics collected by the Department shall be used ..... for the purpose of determining any liability ..... or otherwise be communicated to any government or other authority or person .....".

The Department too, in drafting questionnaires, gives cognizance to this aspect of the respondents privacy and does not usually ask for information which can be interpreted as being an invasion of privacy.

4. COMPUTERIZATION

The Department of Statistics changed from mechanical to electronic data processing in 1967 with the installation of an ICL 1902 mainframe computer at its headquarters. An ICL 1904A mainframe computer with a store of 96k word was acquired in 1969, which was subsequently replaced with a twin ICL 2956 mainframe computer with a memory of 1.5MB each in 1980 to cater for the 1980 Population Census. The memory of one of the computers was enhanced to 4.5MB subsequently to cater for DME (Direct Machine Environment) and VME (Virtual Machine

Environment) operating systems which were operating simultaneously under CME (Concurrent Machine Environment) operating system.

From July, 1985 to April, 1987 the Department operated with only one unit of ICL 2956. In May, 1987 the ICL computer was replaced with an IBM 4381-P12 mainframe computer with a memory of 16MB and using the MVS/XA (Multiple Virtual System/Extended Architecture) operating system. Since the beginning of 1987, a great part of the work of the EDP division was the conversion of all existing applications from ICL to IBM environment. Nearly all major applications have been converted to-date.

The mainframe computer at the headquarters is dedicated to the department's work. It has sufficient capacity to handle the present data processing needs of the Department. The EDP division mainly undertakes three aspects of statistical operations, namely data capture, validation of data and producing of statistical tabulations.

The EDP division handles various types of data inclusive of data from censuses and surveys undertaken by the Department and secondary data like foreign trade data, vital registration data and derived data like national accounting data.

Presently, processing is done basically on batch mode whereas development jobs are done via the terminals using TSO (Time Sharing Option). Subject matter personnel can also access the mainframe data for analysis purposes via their micro-computers which are connected to the mainframe through the 3174 Terminal controller using File Transfer Facility Program.

With the acquisiton of the new computer, DB2 relational database and Query Management Facility, the validation module of Consumer Price Index system and the correction phase of Final National Accounts system are able to use DB2 on-line facilities. It is anticipated that more applications will use the DB2 on-line facilities by the end of 1989 and thereafter.

Some of the mainframe software used includes COBOL, FORTRAN and ASSEMBLER languages, COCENTS, CENTS4, CONCOR, FILETAB, DB2 and SAS packages and GDDM Graphics Software, Query Management Facility, Elementary Maths Library and Resource Access Control Facility. The present trend is towards using higher level packages such as COCENTS, CENTS4, FILETAB and SAS. Statistical packages like ARIMA-XII, COXTALLY and CLUSTER are also available in the mainframe for the purpose of subject matter personnel who use them for forecasting, sampling error and analysis purposes.

The mainframe computer is operated by professional staff comprising of System Analysts (21), Programmers (30) and Console Operators (33) from the common user computer services. In addition there are also machine operators and supervisors (233) who come under a common service which is headed by the Accountant-General. The transfer, training and promotion of these staff are within the jurisdiction of the respective service heads. In addition, some Statistical Officers (12) from the Statistical Service are working in the EDP division mainly in the areas of data preparation, production control and computer operations.

The department is over dependent on the mainframe computer and the computer service personnel for the data processing. The EDP division is faced with the following problems -

- Frequent transfer of computer staff, which affects the work of the department seriously. New officers require time to adapt to the environment of the department.
- The general shortage of trained computer personnel (within the computer serivce).
- Due to the different disciplines, a 'communication gap' exists between the computer staff and the statistical staff which has led to the development of inefficient, time-consuming and unwieldly systems. The gap between the two category of officers is being narrowed down as the statistical staff are enhancing their knowledge on the use of computers especially micro-computers and computer software through training provided by the vendors of hardware and software and also courses conducted in house, locally and abroad.

Micro-Computers

Due to the problems associated with over dependence on mainframe computer and computer service personnel, coupled with the increasing pressure put on the department for quality, specialized and timely statistics, the department is moving towards greater use of micro-computers operated by subject-matter personnel. A number of statisticians and statistical officers have acquired knowledge through training on how to use micro-computers and the relevant software.

There are now 28 units of micro-computers at the headquarters and regional offices (5 IBM PC AT (Enhanced), 4 IBM PS/2 model 30, 2 IBM PS/2 model 50, 3 IBM PS/2 model 60, 1 IBM PS/2 model 80, 1 ICL PC and 12 TATUNG TCS 7000) which have been distributed for use by subject matter personnel.

There are also 16 units of ALR-XT Turbo micro-computers for data capture purposes together with 1 unit of ALR386 micro computer for transfer of data from data capture section to the mainframe using 3270 File Transfer Program. About 8 of the ALR-XT Turbo micro-computers have been loaned to the subject matter divisions to be used by them.

The main software in use are the WORDSTAR 2000 Plus, DBASE III Plus, LOTUS 1-2-3, PAGEMAKER & MICROSOFT WINDOWS, REALIA COBOL, SAS, CENTS4, CONCOR and CENTRY. The survey package U-SP was acquired recently.

With appropriate training and exposure many of the smaller, general and specialized statistical applications will be handled by statisticians and statistical officers using micro-computers and generalised survey processing packages. They would also be able to download the mainframe data to the micro-computers so that analysis of the data could be done using the available packages.

The data can be downloaded from the mainframe to the micro-computers or vice-versa by using the 3270 File Transfer Program. The larger and complicated applications will be left to the EDP unit and EDP professionals.

The Department of Statistics has been using COCENTS and FILETAB for survey tabulations using the mainframe. However, it may be useful to supplement their use with more user friendly tabulation and general statistical analysis packages such as SAS or SPSS so that the statisticians themselves can easily prepare special tabulations required for analysis and for other users. Packages like SAS and SPSS have their own restrictions too, where their processing is slow and core bound. SAS is available in the mainframe and micro-computers while SPSS is only available for the micro-computers.

Distributed Data Processing at the Sub-National Level

At the Department of Statistics, statistical data processing is still largely centralized at the headquarters. Electronic data processing equipment (mini-computers) are available only in the branch offices in Sabah and Sarawak where processing in many cases proceeds up to clean data file for onward transmission to headquarters for consolidation at national level, while for some applications processing is done right up to production of tabulations. These two branch offices changed over from mechanical data processing to electronic data processing with the installation of ICL ME29 computer with a main store of 512KB using TME (Transaction Machine Environment) operating system in each location in 1982. The Department has now acquired a new computer FACOM M730/6 with a main store of 9MB using MSP (Multiple System Processing) operating system which is a subset of the MVS operating system in headquarters and is compatible with the IBM 4381-P12 located in headquarters.

The Department is now in the process of taking appropriate steps to decentralize within a period of four or five years, most of the statistical collection and processing activities to sub-national levels. The rationale for this decision can be summarized as follows -

- To allow processing of data near source.
- To upgrade the role played and services provided by officers at the sub-national levels in order to meet the growing need for statistics at sub-national levels.
- To relieve capacity at headquarters to do more work on intepretation and analysis of data and R&D.
- To facilitate closer interaction of respondents and users of data with the department.

Two important aspects need to be acted upon with regard to decentralized data processing: (a) the provision of appropriate and adequate data processing equipment at sub-national levels and (b) training of statistical personnel who will be responsible for data processing at that level.

Plans are being made to establish micro-computer environments in all states except in states with a larger volume of work where mini-computers will be recommended, to cater for decentralization. For instance the state of Johore may have a mini-computer as data from Johor Bahru Customs which accounts for 40% of Peninsular Malaysia Trade statistics data will be validated and the clean file sent to headquarters. At the first stage, these stations will operate on a 'stand-alone' basis, they are expected to be linked to the mainframe computer at headquarters to allow on-line processing at a later stage using modems and telephone lines.

Decentralized validation/ processing would imply faster turn around and enable centralized main- frame to concentrate on 'clean' data consolidation and tabulation.

Over a period of time, other new applications would also be transfered from the mainframe in Headquaters to be processed in the mini-computers. By transfering of the applications, the workload in the mainframe can be reduced and the mainframe capacity can be used more productively for forecasting, analysis and research.

Data can be updated by the subject matter personnel and clean data from other regional offices could be uploaded to the mainframe and corrections carried out on-line. Sample tabulations and analysis can be done by subject matter personnel in all regional offices using packages like SAS.

Training

The training of common user computer service personnel comes under the jurisdiction of the Public Services Department. There is an on going programme to train these personnel both locally and abroad. There is scope to increase such training facilities to overcome the shortage of trained computer staff.

Within the department serious attention is being given to provide essential computer training to subject matter personnel. The aim of this training is to equip the statistical staff with sufficient knowledge on how to use computers and computer software for statistical work. Quite a number of statisticians and statistical officers have been sent to foreign and local institutions for

training. Officers sent for post-graduate courses have also acquired relevant computer training. A number of in house demonstration sessions on the use and application of some of the main software available for micro-computers have also been held.

Statistical Report Preparation and Printing

Until very recently statistical reports were still largely prepared using conventional methods with little graphics introduced in the publications. Presently, however, we have moved towards the electronic media in report preparation and printing; among those are:

(i) Computer output from mainframe for a number of applications have been designed for direct printing; examples of these are the monthly external trade releases, the monthly CPI and PPI releases.

(ii) The use of word processors for report preparations.

(iii) The use of micro-computers for report preparation, using Wordstar and Lotus 1-2-3 for statistical tables and graphics.

(iv) The acquisition recently of PAGEMAKER and Microsoft Windows and a laser printer to enable to a small extent, desk top publishing.

Processing of the Forthcoming Population and Housing Census

As part of the plan to speed up data processing, a number of alternatives are being looked into to generate timely data. One option would be to decentralise the processing at the regional level,i.e Peninsular Malaysia, Sabah and Sarawak. Data capture, validation, error corrections and certain regional tabulations will be done at the regional level. The clean data file will then be forwarded to the

headquarters where the files from the regional level will be merged to produce national level tabulations.

Further, DOS is in the process of identifying whether OMR equipments or micro-computers are required for the capture of the census data.

OMR equipments were used in the last two censuses and the performance was found to be satisfactory. The only problem faced was where documents were rejected due to the environment of the storage area and documents improperly shaded.

Micro-computers on the other hand have never been used for Population and Housing censuses in Malaysia.

Future Direction

The next few years in Malaysia will see further enhancement in the use of computer technology for statistical data processing.

Since there are many government agencies and institutions involved in statistical data processing in one form or another, duplication of activities can be reduced if the Department of Statistics becomes the main agent for specialized statistical data which is maintained on database and can be accessed by the various government agencies and institutions by local and extended area network. The government agencies and institutions concerned can request the Department of Statistics to provide certain type of data for their analysis and if necessary also provide their expertise so that all users can benefit from upgrading the quality of statistical information in Malaysia.

The Department of Statistics would like to achieve the following in the years to come :-

- Decentralized data collection and processing.
- Subject matter personnel to process small and specialized applications by using micro-computers.
- To establish local and extended area network to optimize the improved computer facilities.
- Review survey questionnaires, validation and tabulation requirements with a view to streamlining statistical data processing.
- In house training programmes in computer and software usage especially in micro-computers. By this principle, a core of trained and efficient officers can be established.
- Social and economic statistical information available in the department could be accessed by the department staff to provide the required information by private enterprise and public on hardcopy for a fee. Data from databases can also be accessed by menus which will guide the department staff to select applications required, the type of tables required for viewing and the type of codes/ descriptions requested by private enterprise and public. If certain information within a particular table is confidential, then the particular column/columns will not be made available for viewing. Databases will be set up for crucial applications like Trade, National Accounts, Balance of Payment, Labour Force Survey and Household Income Survey for a start which are of paramount importance to the nation. Data on monthly and quarterly basis

for a duration of about 1 year is expected to be stored on databases. For voluminious data, data will be stored in aggregated form. The databases will be updated daily and as such the statistics released would contain the latest figures. Over a period of time large capacity DASDs have to be acquired to cater for more applications which would be using data bases.

5. Marketability, accessibility and methods of disseminating statistical reports and information.

5.1 Marketing

The Department of Statistics main target customers are the planners, administrators, researchers (local and foreign), international organizations and the general public. The DOS has had constant interactions with the main users in particular, the planners/policy makers, administrators and central government agencies to identify and produce data that would meet their requirements by and large. This in effect means that there is an instant market for the bulk of the data collected as it was gathered in consultation with the main users. However, it has been noted that some of the requests for data made by central government agencies in particular are not utilized to the extent that it should be and that in many instances the users are unaware of the cost of producing these statistics. The time has come therefore, for the DOS to consider the need to charge not a nominal but a reasonable fee for the generation of specific tables that are normally not requested by the central agencies and the public in general. The levying of a fee would discourage the users in requesting data that they really do not require for their use. The DOS

would also have to review the charges levied for the publications released by it. Currently they are only nominal.

In order to ensure that a wider audience is aware of the available information, programmes have been scheduled and are in the process of being scheduled to promote the product as follows:

(i) the setting up of a special unit to meet and monitor the request for data;

(ii) quick release of quality timely data through various media such as newspapers, television, radio, etc;

(iii) wider distribution of catalogues with brief highlights of contents of each publication;

(iv) strengthening the sales/publication unit at the headquaters and the establishment of a sale/ publication unit in each state office;

(v) upgrading the present library facilities;

(vi) display publications attractively at a conspicuous place such as the department's foyer, and the receptionist area; and

(vii) hold constant dialogues with the main users of data to highlight the availability and the usage of such data.

5.2 Accessibility of data to users

Though it may be felt, at least from a "right to know" basis that whatever statistics collected by the Department should be accessible to any individual, business community or other government agencies, the Chief Statistician, being

governed by the Statistics Act 1965, should take steps to ensure that the identity of the persons or undertaking to whom or to which the statistic relates is not thereby disclosed.

The users of the statistics are generally familiar with the obligations and constraints under which the Department is functioning and, as such, are aware that while they can avail to certain official statistics they may not have access to classified information or to data related to individual establishments or reporting units.

The accessibility of data using EDP facilities has already been discussed under "computerization" and will not therefore be dealt with here.

5.3 The methods of disseminating data by the DOS to the main users can be summed up as follows:

(a) Publications;

(b) Answering telephone calls and letters;

(c) Press releases;

(d) Research papers;

(e) Mimeographs;

(f) Unpublished statistics presented in tabular or other summary forms; and

(g) Unpublished data stored systematically on machine readable media so as to enable easy retrieval and, if necessary, further processing.

DOS is also considering the establishment of a 24 hour recorded message service for latest information on the following:

(i) Consumer Price Index;

(ii) Fob prices of major export commodities; and

(iii) Latest key economic data.

6. PLANNING OF HUMAN RESOURCE DEVELOPMENT IN NATIONAL STATISTICAL OFFICES

The areas for human resource development cuts across all levels of staff including managers, professionals, sub-professionals, supervisory clerks, field staff, editors, coders, punchers, typists, etc. In the Malaysian context it can be looked at from the following points of view:

(a) Current areas of work;

(b) Areas of work that require further development;

(c) Use of modern technology

- Use of PC's
- Statistical Packages programmes
- Data base for instant data retrieval
- On line processing
- Word processor
- New technology in printing
- More frequent use of computer edits and computations, etc.

(d) Other factors -

This include, inter alia, management, leadership, personnel/ industrial relations, public relations, interview techniques, motivation courses, appreciation courses on statistics and courses on problem solving such as QCC, lateral thinking, etc.

The areas mentioned above for human resources development are by no means exhaustive. However, it is certainly a starting point in which the DOS plans its human resources development. For a start the DOS has recently reorganised its "Training Section" to handle all matters relating to training. Training as a whole has been viewed from the following aspects:

(a) Internal (informal)

(i) Upgrading the skills by providing on the job training;

(ii) Training provided by vendors of new equipment;

(iii) Exchange of ideas by participating in discussion groups on technical matters;

(iv) Rotating staff in general every four to five years to widen their work experience; and

(v) Screening films/video tapes on areas such as management, motivation, communication, etc.

(b) Internal (formal)

(i) In-house seminars/workshops;

(ii) Localised training;

(iii) Guest lecturers/consultants from outside the Department; and

(iv) Identify present core of trained personnel who can be trainers in the area for which they have been trained. The training provided would involve the participants to actively participate in a project, etc.

(c) External (local)

(i) Organise country courses, (viz: SIAP courses, etc.);

(ii) Enrol for academic courses in local institutions of

higher learning;

(iii) Organise local workshops/seminars/conferences;

(iv) Participate in joint-projects (e.g. DOS projects on regional data analysis with the University Sains Malaysia, etc.); and

(v) Participate in courses conducted by private organizations (e.g. IBM's executive strategy sessions, etc.).

(d) External (overseas)

(i) Participate in workshop/seminars/conferences to gain exposure to new ideas and practices;

(ii) Attend training courses sponsored by International Agencies and Foreign Governments (viz. IMF, SIAP, ISPC, etc.);

(iii) Participate in study tours of statistical organization; and

(iv) Be attached to overseas statistical organizations to study indepth a particular aspect of the current activities carried out by the statistical organization.

It is imperative that the success of implementing the investment in human resources mentioned above will to a large extent depend on the funds being made available to the Department. The source of funds or assistance would mainly come from the following sources:

(i) Annual budget allocations,

(ii) Federal or States Government scholarships;

(iii) Private organizations and institutions;

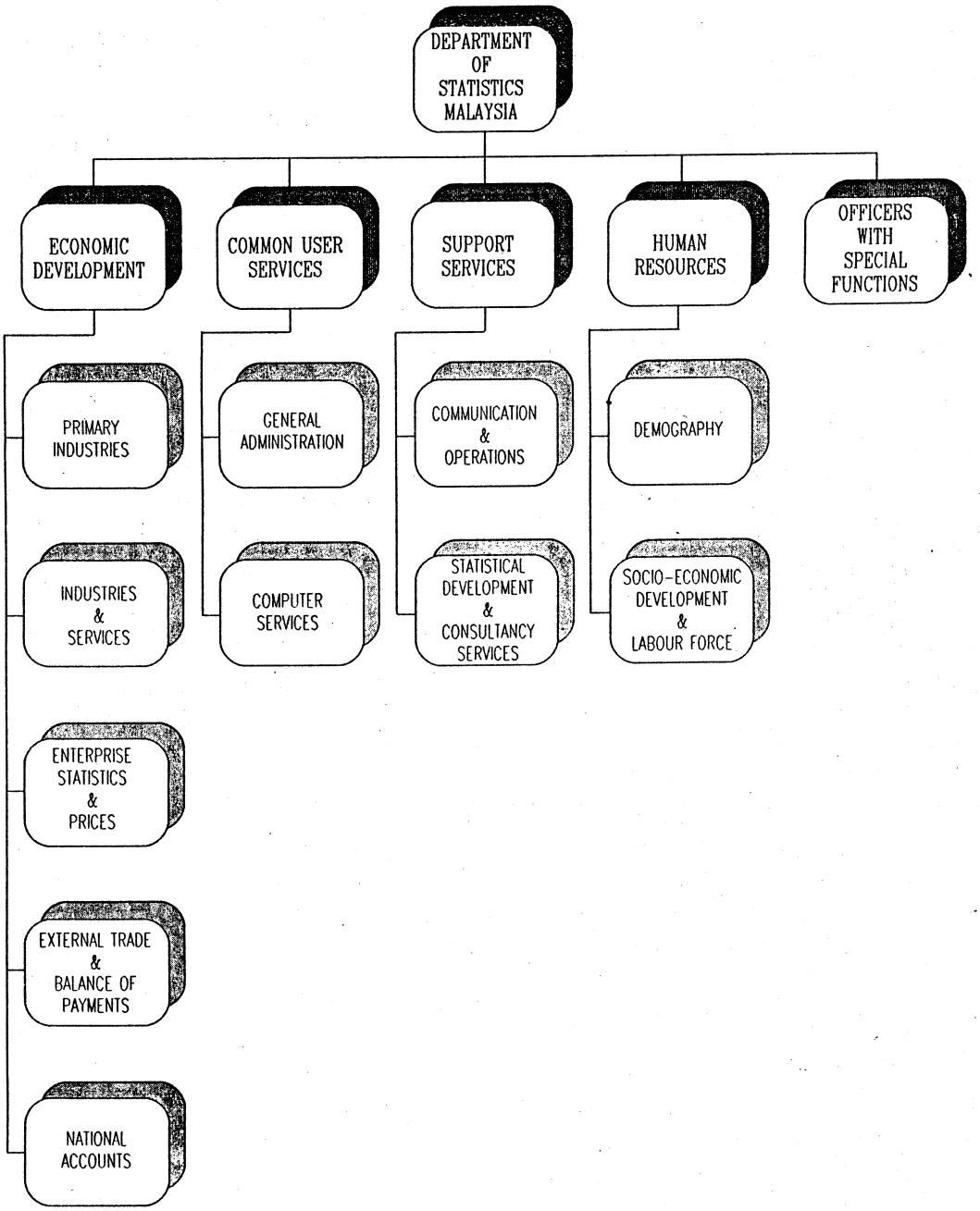
(iv) Foreign government and institutions e.g. British Council scholarships, Commonwealth scholarships etc.; and

(v) International Organizations e.g. UNDP, World Bank, IMF, ILO, ESCAP etc.

Until very recently the DOS did not have on a continuing basis a definite programme for training of staff neither in the short nor the long term. It was merely done on an ad hoc basis. This had resulted in an oversupply of trained personnel in a specific area and an acute shortage in another. Steps are currently being taken to rectify this situation. In addition, close monitoring is currently being done to ensure that the trained personnel are put to effective use and not allowed to stagnate in some irrelevant areas of work in relation to the training which they have undergone. The Department is aware that training is an on-going process and that a periodic review of the training programmes is vital and necessary to meet the increasing demands of the users of statistics.

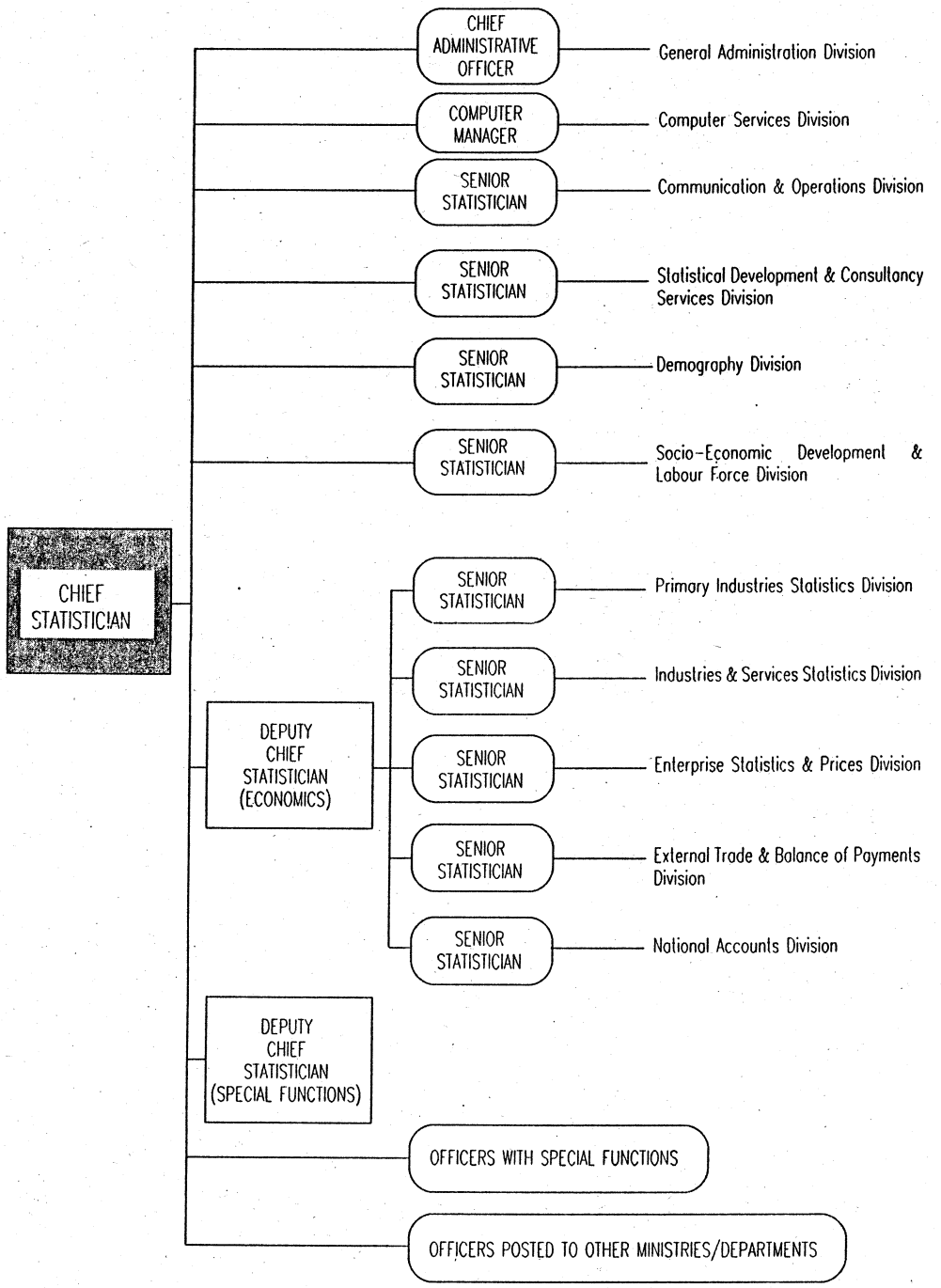
Appendix I

ORGANIZATIONAL STRUCTURE DEPARTMENT OF STATISTICS MALAYSIA



Appendix II

ORGANIZATIONAL SET-UP OF THE DEPARTMENT OF STATISTICS MALAYSIA



NATIONAL STATISTICAL SERVICE IN 1990

National statistical activities

The unified and centralized system of state statistics, which is based on the unify of methodological and organizational principles of accounting and recording is functioning in the Mongolian Peoples Republic. We have reached the unified system of primary record-keeping and statistical information. The statistical office of the State committee for Planning and Economics responsible for the management of all accounting and statistical work. All indicators of the accounting and statistics and its methodology, used by state, public business and co-operatve organizations should be approved either by the statistical office. A number of the indicators is a very limited one. At the present -day stage of the country's development, statistics must be utilized as most important instruments of the social economic analysis, increased competence in the solution of economic and social problems.

Structure of statistical service

The central institution of statistical service in the MPR is the Statistical office of the State Committee for Planning and Economics. The Statistical offise was set up on the basis of the Central Statistical Office, which was amalgamated with some other economic institutions in 1988. The State Commision of Planning, the Central Statistical office, the State Committee for Labour and Social insurance the State Committee on Price that had benn functioning prior to 1988 are integrated to the one central economic organization- the State Committee for Planning and Economics

Statistical office comprised of 6 main divisions such as

the Statistical information, statistics of sphere material production, social statistic, Statistical balance of national economy, statistical methodology and demographic statistic. Other divisions of State Committee for Planning and economics are engaged in statistical work under the guidance of the statistical office.Collection and Compilation statistical information are done by the Committee'sComputer center. The statistical activity in each aimak (administrative area) and big town is carried out by division of the Khurals of People's Deputies,which is local Government board. The group specialists of this division engaged in collection and transmission of statistical data to the Computer center. The statistical activity in Ministries and other institutions is performed by its economic divisions and at the level of enterprises and agencies by book-keeping organs.

Use of statistical information

On basis of statistical information the Statistical office prepares monthly reports and bulletins on the condition of the country's economy. Besides that weakly and teh-day reports about agricultural works are sent to the bodies concerned and published in the central press. The most important results of social and economic development are also published quarterly in the Government newspaper as well as in a number of journals. All the prepared analitical reports are presented to the Government organs as well as to the Ministry and institutions conserned. These reports have used by the Government organs in preperation of practical measures for social and economic development of the country.

The statistical data of social and economic development for year and five yaer periods are used for planning as a basic indicators.

Beside these the quaterly and annual statistical data are presenteted to the statistical divition of the secretariat of Council of Mutual Economic Assistance and the United Nations agencies on standard forms

Training in the statistical personnal

The statistical personnal is trained at home in economic faculty of the State University and specialized technical schools. The Soviet Union and other socialist countries are rendering us practical assistance in training of the national personnal.

All economic and engineering staff that engagad in statistical services has higher educational qualification and all the computer operators have special education. At a later date the statistical personnel will be trained in a following way in the feild of general economic science up to the latest year, then at the latest yaer they will be trained in narrow profile such as planning, statistics , and so on. Graduating from the university they will go to workat a factory and then some of them will be selected to work for the Statistical Office.

Role of statistical information in the state information system

The statistical information is playing fundamental role in the state information system. The statistical office's reports on agricultural work and of fulfilment of state plan of economic and social development are published at the central newspapers regularly. The special space is alloted for statistical data at the periodic journal and magazins. Beside the yearbook, statistical materials of selected branches of national economy, covering detail statistical data are also published by statistical office. Statistical publications in regions and towns are similar to those that are published in the centre.

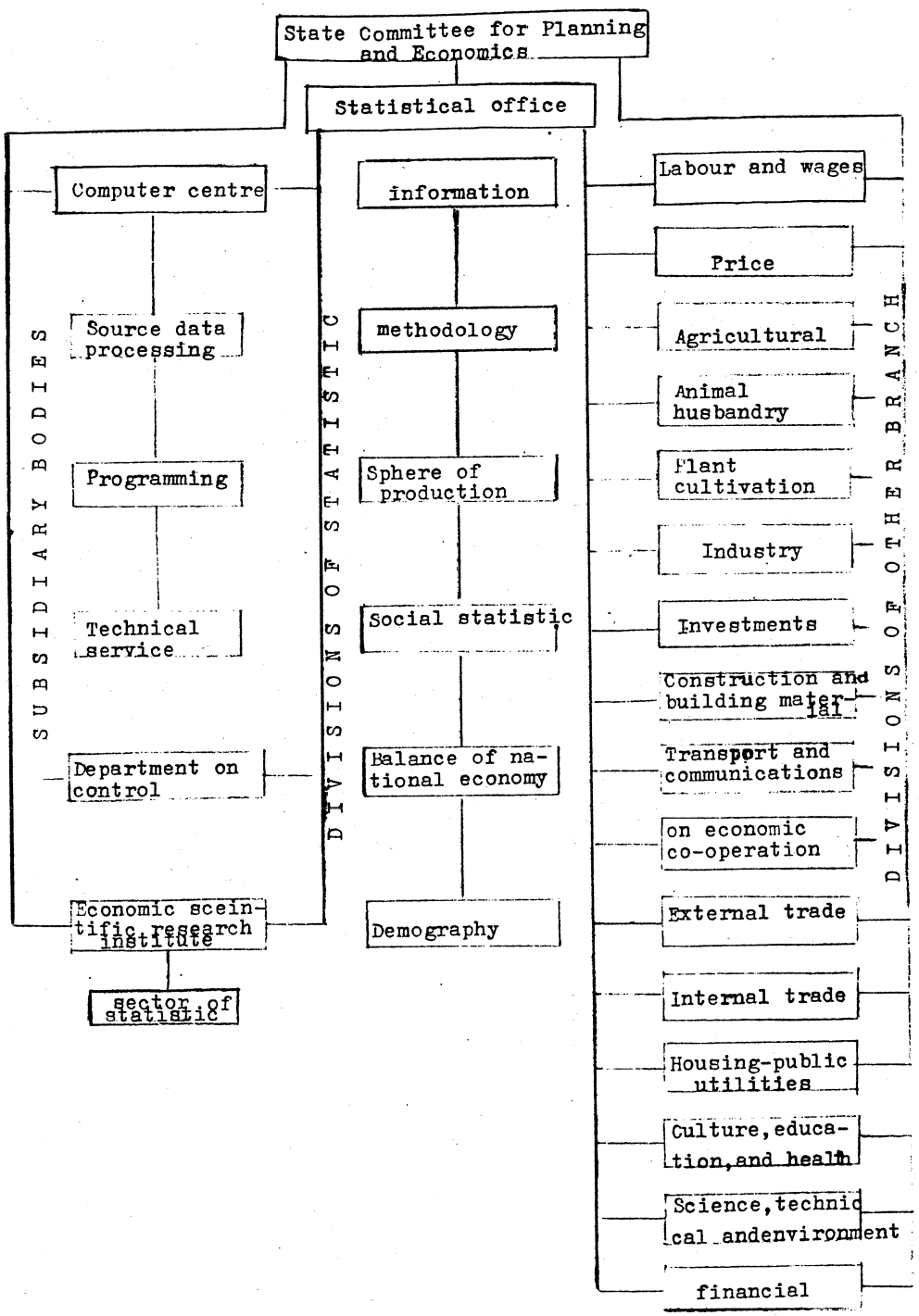
Modernization of the state reporting must contribute to a more fuller satisfication of the requirement for information on various levels of management and simultaneously

ensure rationalization in the very system of registration by redusing expenditure for the implementation of the registration function. It is necessary to take into account that the abundance of information makes its quality inferior, reduces the operative urgensy of its delivery, complicates the search for the data and their selection for decision making.The main trends towards the improvement of the reporting practice are as follow: a/ the exclusion of indicators losing importance and actuality, existing in several forms and having derivatives; b/ the inclusion of indicators reflecting new processes and phenomena; the shifting of some reporting categories to a more lasting periodicity. In this connection there is required a more detailed study of the revers connection betveen the statistical and administrative bodies for exposing the content-validity of the information, directing the flows of information.

There are some significant shortages of our statistical services. Among them the small number of sample surveys, that could provide us with more detailed information on the processes and the phenomena that are taking place in our country.

Organizational structure Statistical office

State Committee for Planning and Economics MPR



A. The Statistical System of Nepal

1. Organization and conduct of Statistical activities in Nepal is a recent phenomenon. The first statistical organization was established only some fourty years before. Though attempts at conducting population censuses and other Socio-economic Surveys were made quite earlier also, the need for and the uses of statistical informations were really felt keenly only during the late 1950s, When Nepal embarked upon a path of uplifting the socio-economic conditions of her people through periodic development plans. As the process of planning for development was established and institutionalized with the creation of appropriate organizations, organization for carrying out statistical activities was also placed under the umbrella of the planning organization and made very much an integral and subservient part of the planning process.

2. The organization of statistical activities has experienced many vicissitudes. The Central Bureau of Statistics (CBS) was established in 1959 as a central agency of the government for carrying out all kinds of statistical enquiries for providing timely and relevant informations needed by the government ministries and departments in their planning exercises. Later on it was also enjoined by law to act as a nodal point for all statistical activities carried out in the kingdom. But unfortunately, the legal provisions made in the Statistics Act (2015) and its ammendments could not be properly reflected in the structural and manpower

arrangements made for the Bureau's functioning with the result that important statistical activities like setting up of an uniform and scientific standards for all statistics published in the Kingdom as well as the co-ordination of efforts to collect and publish timely and accurate statistics on all aspects of the socio-economic conditions of the people was stymied considerably.

3. Under the present dispensation of a decentralized approach to statistics, a plethora of organizations are engaged in producing various statistics. But at the same time there is a great dearth of informations on many useful and important areas of the national life in the absence of a centralized authority to focus upon, plan and conduct the needed statistical enquiries upon such topics in a systematic fashion.

4. The above description of the present state of affairs in the field of statistics in Nepal should not give one the impression that the present statistical system in Nepal is in a quandary. Howsoever the present decentralized system may have proved costly and trouble some, there are however, serveral important statistical organizations beside the Central Bureau of Statistics that are engaged regularly in producing many useful and timely statistics in various fields. The Agricultural Marketing Services Department of the Ministry of Agriculture provides useful statistics on agriculture regularly and the Nepal Rastra Bank (The Central Bank of Nepal) is engaged in compiling and publishing

several economic, monetary and fiscal statistics including Balance of Payments statistics. Similarly many research organizations routinely collect and publish various socio-economic statistics. Tribhuwan University contributes in this effort by producing qualified manpower in statistics annually.

5. In short, the present decentralized system of statistics in Nepal, inspite of its many shortcomings, has been able so far to meet, more or less, the major statistical needs of the country.

B. The Statistical Programme:

6. The Central Bureau of Statistics (CBS) conducts the following important Censuses and Surveys regularly:

   a) The Census of Population - Every Ten years
   b) The Sample Census of Agriculture - "
   c) The Census of Manufacturing Establishments - 5 years
   d) The Demographic Sample Surveys - Intercensal
   e) Annual Survey of Manufacturing Establishments- Annually
   f) Sample Surveys of Cottage Industries, Sample Surveys of Economic activity in Mining, Trade, Transport and Construction Sectors of the Economy - Ad Hoc

7. Besides the Bureau of Statistics several other organizations also conduct surveys on various socio-economic topics periodically and provide regular statistics. The important among them are:

   a) Nepal Fertility Survey - FP/MCH Project (approximately every 5 years)
   b) The Contraceptive prevalance Survey - " "
   c) Household Income & Expenditure Survey - Nepal Rastra Bank
   d) The Agricultural Credit Survey - " "
   e) Collection, compilation and publication of various Monetary, Financial and Balance of Payment Statistics - Nepal Rastra Bank - Annually
   f) Estimation of crop yield and Area under cultivation - Ag. Marketing Services Department - Annually
   g) Livestock and Fishery Statistics - " "

h) Foreign Trade Statistics - Department of customs -
- Trade Promotion Centre -
Annually

i) Tourism Statistics - Department of Tourism - Annually

j) Educational Statistics - Ministry of Education
- Tribhuvan University
Annually

Social Statistics:

Social Statistics in Nepal excluding Population Statistics, is not quite so developed. As has been pointed out above, there are many agencies which are providing some social statistics on more or less a regular basis in their publications. The Central Bureau Compiles such statistics from different agencies and publishes them in a consolidated form in several of its publications such as the Year Book, The Pocket Book and its Quarterly Bulletin. The important social statistics currently published pertains to the Education, Health, Drinking Water, Crimes, Litigations, Newspapers and periodicals published in the country etc.

9. National Accounts

The first attempt to estimate national income of Nepal was made in 1961. Estimates of Gross Domestic Product was prepared and published for the year 1964/65 and continued on an annual basis up to 1973/74. With the expansion of planning activities it was realised that the national accounts estimates have to be updated and the methodology and underlying assumptions unchanged since 1964/65 reexamined. Consequently on a phase-wise basis starting with agriculture followed by groups of other industries detail estimate of gross domestic product by industrial origin for the fiscal year 1976/77 was published by the end of December 1979. A series of figures on gross domestic product by industrial orgin since 1974/75 on a continuing basis has been published by the National Accounts Division of CBS. New sources of information and data available have been incorporated to the extent possible towards improving the estimates in order to make them more reliable.

10. Among other activities carried out by the division include estimates of gross domestic product at constant prices but it remains limited into two major sectors of agriculture and non-agriculture sectors only. On the final use of good and services, component estimate of consumption, gross capital formation are prepared based upon household budget survey and balance sheets available from establishments in the organised sector.

C. Statistical Developments in Recent Years.

11. One of the important aspect for the successful functioning of a decentralized system of statistics is the mechanism to ensure the co-ordination and control of the various activities of different organizations engaged in producing statistics. To achieve this end a National Statistical Council Chaired by Hon'ble member National Planning Commission with representation of important ministries departments and other agencies engaged in statistics is constituted as the apex body to supervise guide and co-ordinate the various statistical activities carried out in the country. The council in its very first meeting created three committees to look into the details of each aspect and recommend the needed actions in the three important aspects of statistical development, viz;

a) Committee on Planning and Co-ordination of Statistical Activities

b) Committee on Determining Standards for all Statistical Activities and

c) Committee on Training & Education in Statistics.

12. The other important development in statistics that is expected to make far reaching impacts on the quality and timelines of statistics produced in the country has to do with the recognition of the fact by His Majesty's Government that career in statistics like career in any other technical disciplines is really a professional career and distinct from the general administrative services. In recognition of

this fact, however belatedly, the government has constituted a separate service in statistics and is now working out the modalities for its implementation. This would help tremendously in developing the required profissionalism in the field of statisties which was heretofore lacking in the statistical system of the country.

13. In line with this newly agreed priniciple of creating a professional service in statistics, HMG has carried out an O & M study of the Central Bureau of Statistics recently and has recommended several measures to strengthen its organizational capacity to carry out the tasks entrusted to it.

14. A concerted effort in training professional statisticians has been started recently in the Bureau. In the past the need for training was largely met through trainings abroad. But in the context of overall statistical development in the country this could no more be left to the vagaries of the oppertunities available from international institutions only. Besides, there was pretty little effort at training the assistant level personnel involved in the crucial aspect of a statistical operation that of data collection and processing. With the constitution of a seperate training unit in the Bureau, This aspect of training of the bulk of the personnel involved in statistical operation will be achieved in a systematic and routined way, which will certainly contribute a great deal towards the collection and presentation of qualitative statistics.

D. Some Important issues related to Future Development of Statistics in Nepal.

15. Though recent development in statistics like the creation of a separate professional service and the establishment of a National Statistical Council can ameliorate the problems confronting the development of statistics in Nepal to a great extent, yet several other problems are likely to persist in the future also. The important among them being the problem of organizing an integrated, capable and efficient field organization to reach out even the most remote and inaccessbile areas of the country. Establishing a good and efficient net work of field offices for statistics is always a difficult proposition even in more developed situations. It is more so in Nepal, where the essential infrastructure of transport and communication is also lacking. Added to this, is the problem of integration of several rudimentary field organization of various sectoral ministries that are also engaged in some statistical activities besides their responsibilities in their respective sectoral programmes. Unless an integrated field service in statistics is established the scope and quality of various statistics produced can not be improved. As such, this integration has to be achieved immediately.

16. The other important issue relates to the availability of qualified and trained manpower in statistics. Though Tribhuwan University and the recently established Training

Unit in CBS supplemented by the education and training of statisticians abroad might suffice for a few years, the pace of statistical education and training in the country has to be enhanced considerably. Even at present, several important statistical activities are being carried out by people not trained in statistical discipline and the demand for statisticians remains unfulfilled due to the lack of people with requisite qualifications. In the future, such demands for statisticians is expected to outgrow the supply of statisticians in the country unless some concerted efforts is made both by the university and the government to make statistical caree attractive to the people.

ECONOMIC AND SOCIAL COMMISSION FOR ASIA AND THE PACIFIC

ESCAP/SIAP Seminar on Managing National Statistical Services in the 1990's

31 July - 4 August 1989, Bangkok

OPERATIONAL ASPECTS OF NATIONAL STATISTICAL OFFICES

New Zealand Country Paper

(Provisional Agenda Item 4)

Background

1 From the time of organised colonisation of New Zealand in 1840, statistics have been produced under various instructions or authority. Between 1840 and 1854 the two provincial governments were required to forward to the 'Home Office' in England the so-called "Blue Books" which contained a range of social, economic and demographic material essentially relating to the immigrants and their activity. The data was collected by a number of agencies and brought together by the provincial governors.

2 1854 saw the first moves to co-ordinate the publication of statistics with this responsibility being assigned to the then Registrar-General's office. This move followed the abolition of provincial governments. As in prior years, the role of the Registrar was merely to bring together and publish data collected by other agencies.

3 The period between 1854 and 1906 saw two significant advances in the production of statistics. Firstly, coverage of surveys, censuses, etc, was extended to include the indigenous Maori people. Secondly, topic reports (such as Agriculture, Industrial Production, etc) along with reference documents like the Yearbook, were introduced and these types of publications continue to the present time.

4 In 1906 the first Act of Parliament - The Census of Statistics Act (along with the Census Ordinance) - covering the collection of statistics was introduced. This Act was revised in 1910, when the first Statistician was provided for, and again in 1926. In essence, these Acts only authorised the collection of data by the agencies

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already collecting them and did virtually nothing in defining the role of the Statistician or on such matters as co-ordination. The Statistician was an employee of the Registrar-General's office initially, then variously over the period was under Internal Affairs and Industries and Commerce.

5 Statistical indepedence came in 1936 with another revision to the Census and Statistics Act. With the creation of a statistics office most, but not all, of the statistics obtained by census or survey, as against from administrative records, were centralised in one office. Unfortunately, the role of the Statistician, other than in the administration of his own office, remained particularly vague.

6 This situation was remedied in 1955 with the enactment of the first Statistics Act when the co-ordination functions, powers, and other duties of the Statistician were clearly defined. This Act was further updated in 1975 and, with some relatively minor subsequent changes, remains in force today.

7 The Duties of the Statistician, as now specified, are reproduced at Appendix A.

Current Situation

8 Reference was made earlier to the fact that various agencies were involved in the generation of statistics. To some extent this is still the case today but the situation is rapidly changing. Essentially, New Zealand has a highly centralised statistical system. The exceptions are where the subject is an integral and essential function of the organisation - eg, Health, Transport, Labour OR specific statistical research projects for policy planning purposes.

9 Increasingly, however, other agencies of state are expressing the view that as the 'statistical experts' the department is more competent to undertake statistical survey work and are transferring responsibility to the department. Labour statistics is an example where transfer has already been effected, and discussion has commenced in one other major area of statistics.

10 As can be seen from Appendix A, the Statistician, while not necessarily having the responsibility for collecting all statistics for central government's use, has an important role in setting standards, co-ordination, advice to government, and in advising the Minister of Statistics. These and other related issues are discussed in the following paragraphs.

Organisation

11 The Department of Statistics has offices in the four main centres of population. It does not, however, operate on a Head/District Office basis - rather, as a dispersed Head Office. Apart from the obvious administrative considerations, this procedure is considered to facilitate better management of such issues as standards and for co-ordinating the appropriate flows of data between divisions.

12 The degree of decentralisation of statistical servicing units varies as follows:

Electronic Data Processing Personnel (Programming)	3 locations
Mathematical Statistics	2 locations
Printing and Publishing	1 location
Marketing Services	3 locations

Where the services of these units are required and they do not exist or exceed the capacity in any location, resources are allocated on a project basis.

13 As at 31 March 1989 the number of positions in each location was:

Wellington	308
Christchurch	187
Auckland	121
Dunedin	50

14 The New Zealand Department of Statistics is required by the New Zealand Government to operate on a net funding basis which three years ago meant the department had to generate revenue equal to five percent of gross expenditure and this increases to 25 percent of gross expenditure by 1990-91. For the March 1988-89 year gross expenditure was $39,833,000, revenue $3,174,000 and net expenditure $36,659,000. Revenue was derived from the sale of publications, customised output, subsidising of short-term production series by users, and the taking of a survey for another government agency. Equivalent figures for the June 1989-90 year (revised balance date) are $42,071,000, $7,305,000, and $34,766,000.

15 The Department of Statistics collects an extremely wide range of official statistics on every sector of the economy, people and New Zealand's social situation. In addition, administration records are accessed, by arrangement with the appropriate authorities, for the like of Vitals and Incomes data.

16 Every field of statistics or service function is the responsibility of a particular unit with each reporting to a senior manager and, in turn, to a Deputy or the Government Statistician. In essence, administrative service units report to the Statistician, and statistical or statistical servicing units to one of the two Deputies.

17 The current organisation is given at Appendix B. From this it will be noted that each deputy is assigned a mixture of statistical and service units. It should be noted though that it is departmental policy to vary the reporting arrangements from senior manager to deputy statistician from time to time.

Role of Minister of Statistics

18 Section 15 of the Statistics Act provides for the Statistician to have "... sole responsibility for deciding the procedures and methods employed in the provision of any statistics produced by the Statistician (and for) deciding the extent, form, and timing of publication.....". Nevertheless, every statistical collection, whether by the Department of Statistics or another agency of state, may only be undertaken with the express approval of the Minister of Statistics. This includes variation to an existing collection.

19 Ministerial approval results from three circumstances:

i) government instruction to effect a particular survey;

ii) Department of Statistics requests to undertake or substantially alter a survey;

iii) requests to initiate or substantially alter a survey from another agency of state which is endorsed as to standards by the Statistician.

Co-ordination

20 One duty of the Statistician is "to define, lay down, and promote standard concepts, procedures, definitions, and classifications for use in official statistics." There are two distinct elements to this function - external and internal.

21 While the Statistics Act provides for the Statistician to 'lay down' standards, the same Act only allows for the 'promotion' of them externally - not enforcement. Nevertheless, use of the defined standards is now commonplace with external users who also provide valuable comment on the application of these in their field. Contact is maintained either through Statistical Liaison Officers, which exist in all government departments, and/or with those actually involved in the production of statistics. It should be noted though that were an agency not to subscribe to the defined standards, it is possible - and there have been one or two cases - for the Statistician to recommend to the Minister of Statistics that a survey not proceed.

22 Internally the promulgation and monitoring of standards either occurs through the work of co-ordinating committees or the appropriate specialist group. For example: the Economic Standard Co-ordination Committee and the Household Survey Co-ordination Committee were established expressly to ensure co-ordination in all areas of economic and household statistics respectively; a Standard Classification Committee oversees the development and maintenance of all classifications; while mathematical, graphical, data processing, etc standards are prescribed by the relevant specialist division and approved and co-ordinated by executive management.

Statistical Reviews

23 Clearly major concerns of a statistical office are the continued applicability of a survey or census, the need to ensure both the ability of respondents to comply, and the necessity of limiting, as far as is practicable, respondent burden.

24 These issues are addressed by various continuing review processes:

i) Formal subject matter reviews where committees of supplier and user representatives, other government agencies, and the department, are estblished. These committees, over a roughly 10 year period, examine every topic group of statistics produced within government. These are resource demanding reviews serviced by the department's staff but the product is a critical appraisal of every question balanced against need and recommendations as to the desirable course(s) of action. Having been achieved in a consensus environment, recommendations are generally adopted by the agency concerned excepting where they are overtaken by events or the necessary funding is not available.

ii) Consultation with users/suppliers of subject specific data at the time of reprinting regular annual or less frequent surveys and periodically, usually within five years, for short-term economic indicators. These reviews are expressly to ensure the currency and reasonability of the questions asked and regularly result in 'modernisation' of questionnaires.

iii) Reaction to emergent needs, changing environment, etc, in the period between reviews.

Briefly, reviews are a continuing and essential function of the department's activity.

Planning and Priorities

27 Increasingly, government departments are being subjected to financial constraints such as net funding and the non-funding by Government of price and salary increases. This environment alongside the ever-increasing demand for more statistical data services, demands very careful planning of work programmes and priorities and cost-effective management of the resources available to the department.

28 Regardless of the need for such internal planning, there are requirements of government for the public presentation of plans and for output accountability, in both product and financial terms, for each financial programme operated by the department.

29 The continued successful functioning of the New Zealand Department of Statistics rests on its ability to appropriately react to the environment in which it operates while maintaining the supply of high quality cost-effective output to users.

30 To assist in achieving these aims the department has for four consecutive years produced a Corporate Plan. This document, which is compiled in a committee environment involving Senior Managers and above, addresses in detail the following issues:

- Mission statement
- Legislation impacting on the functioning of the department
- Organisation of the department
- Outputs and Outcomes
- Environmental factors affecting our operation
- The corporate programme covering:
    - . estimated expenditure for each of the four output groups for the current and four subsequent years
    - . revenue as for above
    - . new initiatives giving the Result, Benefit and Achievement date(s)
    - . performance measures for each statistical series
    - . quality control and assurance matters
    - . priority framework
    - . net funding and revenue generation issues
    - . human resources

31 Similar documents are also prepared for each Senior Manager's portfolio. In this way, every unit and staff member of the department can identify with the operational programme and goals for the area of concern and the manner in which that function ties in with the overall mission and operation of the department. These documents are for in-house use only.

32 Historically the timing of the preparation of the corporate plan did not dovetail with the governmental budget setting process. As a result some outputs and outcomes may not have been achievable, in part or at all, if the appropriate resources were not fully funded. This situation changed this year with government requiring documented plans and for these to be integrated with the budget cycle. The Corporate Plan is then finalised with a better, but not full, knowledge of the likely funding by Government.

33 This corporate plan document with its precise statement of Outputs and Outcomes, along with the budget out-turn, is an accountability statement and forms the basis for assessing the overall performance of the department by government. Performance reviews are effected annually by a parliamentary sub-committee coincidental with the tabling of the budget results. At this time the department is required to report on every output/outcome and provide reasons for any variances that exist.

34 It should also be noted that the details in the plan relating to departmental performance are part of the performance and accountability statement that form part of the "Contract of Employment" for the Government Statistician and the two Deputies.

35 Regular monthly internal reports of progress/achievement for every project outcome/output is required from every division in the department. This monitoring not only provides an assessment of managerial effectiveness but also the information which may facilitate appropriate remedial action and, if necessary, redistribution of resource.

36 It is appropriate here to mention the role of the Systems Review Board (SRB) established in the department. In recognition of the need to co-ordinate the large developments undertaken in the department, it was deemed a high level board with decision-making powers should be set up. The SRB is responsible for approving the work programme of the two key servicing units - mathematical statistics and EDP - giving appropriate recognition to the priorities established by Executive Management. It is also required to monitor progress and, where necessary, to reallocate resources between programmes to ensure higher priority work is actioned in the time frames required.

37 In paragraph 30 it was noted that estimated budgets are given four years ahead. These estimates reflect the department's on-going commitments plus proposals by Senior Managers for likely future work. Each successive year these are refined to reflect environmental changes, new needs, modified criteria, etc, until formally approved as the next year's work programme by Executive Management, and where new or revised surveys involved, by the Minister.

38 In addition to formal monitoring/reporting processes - both internal and external - the following consultative processes take place:

- augmented Executive Management meetings where specific issues are discussed;
- ad hoc interdivisional meetings to enhance co-ordination and project completion;
- regular meetings with the Minister of Statistics where progress or other issues on key topics is discussed.

International Liaison

39 Following many years of relatively low levels of contact with international organisations and other statistical agencies, New Zealand has over recent years increased its level of activity and commitment. Activity in the wider international arena enables the sharing of experiences, skills and development to the benefit of all concerned. In particular, involvement in activities in the Asia and Pacific region is an appropriate means of fostering statistical development and training.

40 The New Zealand Department of Statistics is committed to and has regularly participated in the ESCAP Committee on Statistics Sessions and the Expert Working Groups. Also, other ESCAP or ESCAP/SIAP seminars and workshops have been frequently attended with New Zealand often providing trainers or discussion papers. An example of this is the recent sessions on Computer Assisted Coding.

41 It is appropriate to note that ESCAP provides countries in the region with the only regular channel for input to the UN Statistical Commission. New Zealand has, however, attended this commission as a member on rotation and as an observer in the 1980's.

42 New Zealand also actively supports the work of the South Pacific Commission and regularly attends the bi-annual statistical conferences as well as providing support for training and system development.

43 One specific project undertaken by the department to assist countries in the South Pacific region is the development of an HS External Trade system which is personal computer based. In fact, however, much interest is being shown in the system by North Pacific countries and to date demonstrations and training have been given in a number of countries.

44 As with most statistical bureaux, the department maintains liaison with and attends such sessions as appropriate in:- the Food and Agricultural Organisation; International Labour Organisation; Organisation for Economic Co-operation and Development; Commonwealth Statisticians Conference; International Statistical Institute; Conference of European Statisticians; amongst others.

45 Another facet of assistance in the Pacific region has been the assistance with on-the-job training both in New Zealand or in the home country and technical assistance with developments.

46 In virtually all cases where the department assists with training and development programmes, it is on the basis that salary is paid by the department with other costs being met by regional or international bodies.

14. Duties of Government Statistician—The duties of the Statistician shall be:

(a) To make such reports to the Minister as are required by this Act, which reports shall have regards to the needs of user Departments; and, where consultations have been held, shall include the results of such consultations:

(b) To advise the Minister on statistical policy matters, and where appropriate to confer with appropriate officers of other Government Departments to that end:

(c) To keep the Minister informed of the statistical projects of all Government Departments, and to provide, where appropriate after consultation with an appropriate officer of any other Government Department concerned, any explanation required of the Statistician by the Minister of the purpose, scheme, methodology, and usefulness of any existing or proposed official statistical project:

(d) To collect, with the written approval of the Minister, information concerning any or all of the matters specified in section 4 of this Act:

(e) To compile, analyse, abstract, and publish, with or without comments, official statistics:

(f) To advise other Government Departments on the conception of statistical projects initiated or carried on by them, and to promote the observance of approved statistical standards by those Government Departments:

(g) To consult with appropriate officers of other Government Departments on the need for, and the scope, procedure, and form of any existing or proposed statistical survey being or to be carried out by the Departments; and to make a report to the Minister on the necessity for and the scope of any such survey and the Government Department or Departments to be responsible for the survey:

(h) To make, after consultation with an appropriate officer of any other Government Department concerned, a report to the Minister on the need for the continuance or discontinuance or the variation of any current collections of official statistics:

(i) To define, lay down, and promote standard concepts, procedures, definitions, and classifications for use in official statistics:

(j) To make or construct such estimates, forecasts, projections, and statistical models as the Statistician may from time to time consider necessary:

(k) To take the census of population and dwellings of New Zealand as provided for in Part III of this Act:

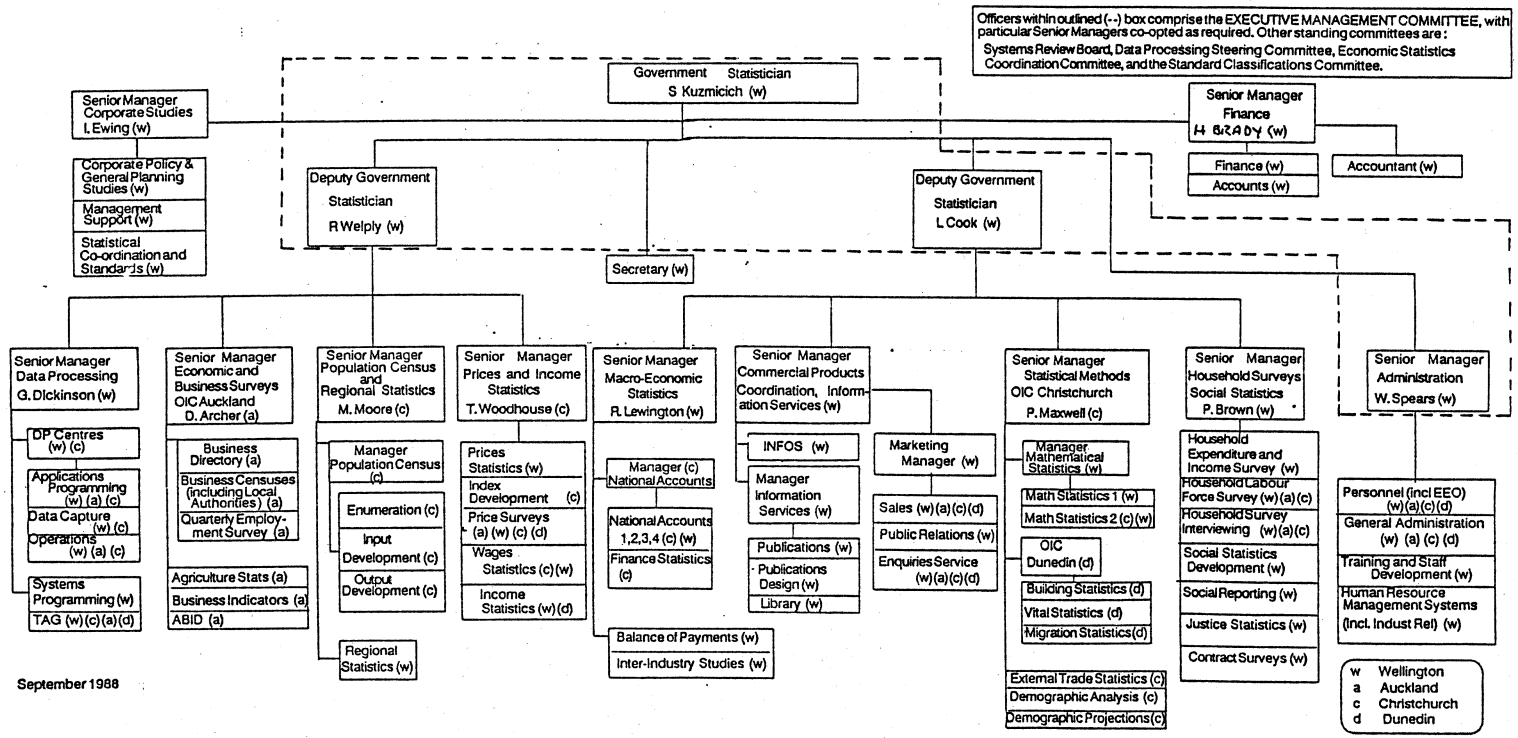
(l) To examine and comment, where the Statistician considers necessary, on the interpretation and validity of any published unofficial statistics; and to publish any such statistics and comment thereon as the Statistician considers necessary:

(m) To carry out such investigations, do all such things, and provide such certificates, as may be required of him by any other Act:

(n) To supply, where the Statistician considers appropriate, specifications of the methods, procedures, and definitions used in the collection and preparation of the official statistics he produces, subject to section 37 of this Act.

APPENDIX B

Department of Statistics
Organisation Chart



ESCAP/SIAP SEMINAR ON MANAGING NATIONAL STATISTICAL SERVICES ON THE 1990s-
31 JULY - 4 AUGUST, 1989 - BANGKOK

COUNTRY PAPER ON PAKISTAN

by

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Deputy Director General
STATISTICS DIVISION

A country can have any of the following statistical system to suit its genesis and special circumstances:

- Centralised system
- Decentralised system
- Combination of the above systems.

2. At the time of independence in 1947, Pakistan inherited a statistical system which mainly produced data as a by - product of administrative functions of the government. This consisted statistical cells varying in strength and technical skill in different departments, but with, no central agency to co-ordinate their activities and to collate national statistics cutting across different sectors. The Government of Pakistan, therefore, had a challenging task of creating a viable statistical system to serve the nation's data needs. Taking cognizance of the situation, the Government, therefore, decided to establish a Central Statistical Office (CSO) in 1949 for generation and dissemmination of timely and reliable data, commensurate with the data needs of the government and other users.

3. Keeping in view the future needs of this new country, initially a statistical system on the then pattern of Canadian System, was conceived. However, in practice, the Canadian System could not be followed in toto in Pakistan for variety of reasons. The system which subsequently, emerged was a semi-centralised system with considerable independence and autonomy remaining with the statistical cells of important Ministries/agencies. Over the past four decades, the statistical system has grown considerably but has for the most part, kept its essential de-centralised form.

4. As the time passed, the role of a sound statistical system has increasingly, been recognised for development planning, policy formulation, decision making, monitoring, evaluation and research. This necessitated subjecting to periodic critical review of the statistical system and services

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* The views expressed in the paper are of the author and in no way represent the official views.

for its re-structuring to improve its efficiency and efficacy commensurate with the growing data requirements. As a consequence of such periodic review of the system, both by the national and foreign experts, the status of the Central Statistical Office was raised in 1972. to a full-fledged, Statistics Division- an administrative Ministry for Statistics.. In 1978, the Population Census Organization (PCO) and Agricultural Census Organization (ACO) which were part of the Ministry of Interior and Ministry for Food & Agriculture respectively, were also brought under the technical umbrella of Statistics Division. As a result of further re-organization in 1981, the technical wing of the Statistics Division (i.e. the former CSO) was bifurcated and converted into a Federal Bureau of Statistics(FBS). A national training centre called 'Pakistan Institute for Statistical Training and Research (PISTAR)' was also set up under the Division in late 1980s.

5. The statistical system at the federal level now comprises of Statistics Division as the premier statistical organization with its attached departments namely FBS, PCO, ACO & PISTAR. In addition, statistical cells are functioning in other Divisions/Departments. These include important Cells engaged in both basic data collection and analysis e.g. Department of Statistics of State Bank of Pakistan, Directorate of Reseach and Statistics in the Central Board of Revenue. Statistical Cells are also functioning in Divisions/agencies dealing with Health, Polpulation Planning, Agriculture, Finance, Planning , Management Services, Interior, Tourism & Culture, Industries, Railwalys, Labour & Manpower etc. to meet their specific data requirements. In fields of Provincial responsibility, in some cases, the operating Federal Divisions assemble the statistics from the four Provinces and in other cases, FBS performs this function. Some of the Cells are primarily users rather than produces of data.

6. At the Provincial leve, Bureaus of Statistics exist either as a part or attached department of Planning Departments. Besides statistical cells are also operating in other departments namely Agriculture, Industries, Labour, Land Records, Revenue, Health, Education, Social Welfare, Police etc. Cells located in the Departments of Agriculture and of Land Records are generally well staffed.

7. The statistical system of Pakistan both at the federal and provincial level is given in details as Annex.I.

8. Statistics Division is mainly responsible for the formulation of statistical policies and plans for development and improvement of statistics with its agreed prioritization and agency responsibility; coordination in statistical matters with national and international agencies; standardization of concepts/ definitions, classifications; in-service & foreign training programmes; censuses and surveys and operation of Statistical Acts.

9. FBS is mainly responsible for the preparation of National Accounts(GDP/GNP, investment, savings, expenditure series etc.); retail & wholesale prices and computation of weekly Consumer Price Indicators for essential items, monthly consumer price index and wholesale price index; foreign trade; crop statistics; industrial statistics; energy statistics; labour statistics; social statistics etc. and conducting of national censuses/surveys e.g census of establishments; census of mining industries/electricity undertakings/large scale manufacturing industries; census/surveys of small & household manufacturing industries; labour force survey; Pakistan demographic survey; household income & expendiutre survey; construction survey; rent survey; health and health examination surveys etc. FBS has its own field organization for conducting surveys and collection of prices. It has at present 14 regional and 27 field offices spread throughout Pakistan. In several instances, the FBS establishes the standards and draft questionnaire in respect of surveys conducted by the provinces.

10. PCO is mainly responsible for the decennial Housing & Population Censuses conducted with the field assistance of the Provinces in the country and preparation/publication of reports at various administrative levels. During the intercensal period, it carries out methodological investigations and analysis of demographic data.It has its field offices located at the four provincial headquarters for looking after the field operations and maintaining liasion with the Provincial Governments. It has recently set up additional field offices for facilitating the conduct of 1991 Population Census.

11. ACO is mainly responsible for the decennial Agriculture Census & Livestock Census in the country conducted with the field assistance of the Provincial Governments. Besides, it also undertakes related surveys during intercensal period e.g. rural credit survey, agriculture machinery survey. It has also its field offics located at the four Provincial headquarters.

12. The activities of the Provincial Bureaus of Statistics and various Cells are restricted to Provincial subjects e.g. agriculture, education, health, labour besides data required to meet their specific requirements of the agencies concerned..

13. The general Statistics Act, 1975 provides an adequate legal basis for a sound statistical system including a) a legal obligation on the part of respodents to supply information; and b) a legal guarrantee that individual information will not be disclosed. It also authorises the establishment of Statistical Councils and Statistics Authority(s) both at the federal and provincial level. Notwithstanding this latest Act, Census of Large Scale Manufacturing Industry continues to be conducted under the Industrial Statistics Act, 1942, Population Census under Census Ordinance, 1959 and Agriculture Census under Agricultural Census Act, 1958 as status of these Acts has not been disturbed.

14. In the past, the success of the statistical system in Pakistan hinged upon the development of an effective co-ordinative role of the CSO in the centre and that of Bureaus in the Provinces. For promoting inter-departmental consultations and exchange of views between producers and users of data, a National Statistical Council was reconstituted under the General Statistics Act, 1975 with Minister Incharge of Statistics Division as its Chairman and Secretary(s) of the economic and related Divisions and heads of the provincial Planning & Developments Departments as its members. Statistics Division acts as its Secretariat. Provincial Statistical Councils have also been constituted with Head of the Planning Departments as its Chairman and Heads of other concerned Departments as its members with Provincial Bureaus of Statistics acting as its Secretariat. Similarly, under the Act, Secretary, Statistics Division has been notified as the Federal Statistics Authority and Provincial Heads of the Planning Departments as the Provincial Statistics Authority(s).

15. To assist the National Statistical Council in technical matters, a Technical Advisory Committee has been re-established with Directory General, FBS as its head and comprising representatives of concernd federal, provincial and autonomous bodies as its members. Under this Committee, technical Panels comprising of both producers and users of statistics hailing from federal, provincial, autonomous and reseach agencies, have been set up in all important subjects e.g. labour & Manpower, demography, Census of Manufacturing Industries, Industiral statistics, transport & communication, health, foreign trade, savings, agriculture, forestry, household income and expenditured, Government finance, price statistics, wage statistics. The Panels identify statistical gaps for formulation of programs in different areas and also work on their priortization, frequency, agency responsibility, uniformity in presentation of data etc. Survey plans covering questionnaire, tabulation plan, methodology etc. are also discussed in the Panel's meetings besides avoiding of duplication and other issues involved. Issues etc. which remain unresolved are referred to Technical Advisory Committee and than finally to National Statistical Council. Resposibility for ensuring adoption of uniform concepts/definitions, classifications etc. also rests with the Panels.

16. In the case of National Accounts, a National Accounts Committee under Secretary, Statistics Division is already functioning which reviews and clears series on GDP/GNP, expenditure, investment etc. and also takes policy decisions for data improvement etc. The Committee includes representatives of important agencies e.g. Planning, Finance, Food & Agriculture, Industries, State Bank of Pakistan, Pakistan Institute for Development Economics, Provincial Bureaus of Statistics, etc.

17. Statistical Council, its TAC and subject matter Panels/ Working Groups as well as NAC provide a regular forum to both users and producers of data to exchange ideas on data

requirements, existing series available and statistical gaps and formulation of future programmes accordingly in defferent areas. Statistics Division has in the past been preparing and implementing its Five Year Statistical Work Plans. For the 7th Development Plan (1988-89 to 1992-93), the Government of Pakistan, inter-alia constituted a Working Group on Statistics whose recommendations have been included in the Plan Document alongwith the surveys and other activities to be carried out during this period. A substntional amount has also been provided to support thse activities both at the federal/provincial level and to strengthen the statistical system.

Relationship with International Organizations and Agencies in Statistical Matters.

18. Economic Affairs Division, Government of Pakistan, is is responsible for coordinating with the interntional agencies in all official matters. Statistics Division, however, maintains close liasion in statistical matters with international organizations and agencies e.g. UNSO, ESCAP/SAP, UNFPA, UNICEF, WORLD BANK, USAID Statistics Division, and its attached departments have from time to time not only been receiving technical assistance from various agencies interms of training facilities and equipment but also advisory serices in different areas. At the behest of Government of Pkistan, an IBRD Statistical Mission visited Pakistan, in October - November, 1969 to review the statistical system of the country, and make recommendations for its improvement. The Mission in its detailed report in 1970, inter-alia, made recomendations for the improvement of basic agriculture and non-agriclture statistics, national accounts, demographic statistics, Government accounts, data collection & processing and statistical organizations. Subsequent follow up visits of the World Ban experts were arranged in April, 1979 and March, 1988 to futher review and strengthen Pakistan Statistical System according to needs of the time. The services of Sir John Borham, forme head of the Central Statistical Organization, UK, were als arranged under UNDP in December, 1988 to review Government statistics in Pakistan and to give recommendations. The visit of numerous experts in different fields has helped in improving not only the statistical system and services but also statistial series in the country.

19. At present, Statistics Division is carrying out the following programmes with the assistance of the international agencies:-

I. Agriculture Data Collection Project (Component of Government's Food Security Management Project).

This project which is being carried out with the assistance of USAID, aims at strengthening and improving the capabilities of Federal Bureau of Statistics and the Crop Reporting services of the Provincial Governments to develope and

institutionalise data collection and analysis system in order to produce reliable and timely agriculture statistics from use of Area Sampling Frame methodology. the preiod of this project was July. 1985 to DEC. 1989 which is now being further extended and will now use the Sattellite SPOT IMAGERY for development of Area Sampling Frame.

II. Replacement and modernization of Computer Facilities of FBS

This project which is being carried out with the assistance of USAID aims at modernization and expansion of the computer net-work of Fbs through installation of main frame in islamabad and mini-computers at the provincial headquarters so as to prepare itself for the work of next Agriculture census 1990, Housing & Population Census 1991 as well as other censuses/survers. The period of implentation of this project is 60 months i.e july 1988 to june 1993.

III. National Housing Survey Capablility Programme

This project is being carried out with the assestance of CIDA/UNDF and aims at assisting the FBS in the development of systematic household surveys including modules to generate specific information about situation of woman and to strengthen FBS capability to carry out integrated surveys programme in future. The period of this project is 60 months i.e. Jan. 1986 to Dec. 1990.

IV. Improvement or National Accounts Statistics in Pakistan.

This project is being carried out with the assistance of Gevernment of Netherlands and aims to improve the National Accounts of Pakistan and stand preparation of SAM, INPUT-OUTPUT Tables Flow of Funds, ect. The period of this project is 40 months, i.e. July, 1988 to Dec., 1991.

V. Pakistan Integrated Household Survey

This project is going to be undertaken shortly with the assistance of number of internationald agencies and aims at developing an adequate data base necessary for the formulation of development plans and key areas like poverty alleviation,

provision of basic services, employment generation etc. The duration of this project is 20 months i.e. from Jan. 1988 to Aug., 1990. Commencement of this programme has been delayed and will be taken up in late 1989.

There are number of other projects which are under preparation and will be taken up in future with the assistance of aid giving agencies.

Agenda Item 6: DISSEMINATION AND MARKETING OF STATISTICAL PRODUCTS

20. Vast amount of data is collected through censuses/surveys or from administrative records and disseminated both through special as well as regular publications of Statistics Division/its attached departments. Important publications are listed below:

I. Statistics Division

1. Annual Activity Report.
2. Catalogue of Publications.

II. Federal Bureau of Statistics

1. Monthly Statistical Bulletin
2. Monthly Newsletter.
3. Annual Year Book.
4. Annual Pocket Book.
5. Monthly/Quarterly/Annual publications on Foreign Trade - Exports & Imports.
6. Brochure on National Accounts.
7. Reports based on Surveys/Censuses - Regular and Adhoc.

III. Population Census Organization

1. Reports on decennial Housing & Pupulation Census at various administrative levels.
2. Special Reports.

IV. Agricultural Census Organization

1. Reports of Agriculture Census & Livestock Census at national and provincial level.
2. Reports based on other surveys e.g. Rural Credit, Agriculture Machinery.

21. Most of the above are priced publications but subsidised to ensure availability of data to maximum users. These are sold through offices of the Manager of Publications, Federal Publications Branch, FBS own sale centres in its regional offices as well as private book sellers. New

publications are generally announced through newspapers.

22. In case of important series, e.g. Prices, Trade, data is disseminated to the users in the Government as well as media through special monthly releases which is reproduced in the newspapers.

23. Important data e.g. National Accounts, Prices, is issued, both in the form of special reports and also included in the regular publications like Monthly Statistical Bulletin, Statistical Year Book, Statistical Pocket Book. Data is also issued in important publications of other agencies e.g. Economic Surveys of Pakistan of Finance Division, issued before the Budget Speech of the Finance Minister.

24. Data is also disseminated in the newspapers and journals through special articles.

25. Tapes of data collected through surveys/censuses are also made avaialable to other national/international agencies for their specific requirements.

ANNEX-I

STATISTICAL SYSTEM OF PAKISTAN

FEDERAL STATISTICAL AUTHORITY
(SECRETARY, STATISTICS DIVISION)

STATISTICS DIVISION

FBS | PCO | ACO | PISTAR

NATIONAL STATISTICAL COUNCIL

STATISTICAL CELLS IN THE FEDERAL MINISTRIES/DIVISIONS;

1. FOOD & AGRICULTURE DIVISION
2. EDUCATION
3. LABOUR & MANPOWER
4. O & M
5. HEALTH
6. POPULATION WELFARE
7. TOURISM
8. INDUSTIRES
9. ESTABLISHMENT
10. FINANCE ETC.

PROVINCIAL STATISTICS AUTHORITY
(CHAIRMAN PLANNING BOARD/ADDL. CHIEF SECRETARY. DEV.)

PROVINCIAL BUREAU OF STATISTICS

PROVINCIAL STATISTICAL COUNCIL SECTT.

STATISTICAL CELLS IN THE DEPTT. OF:

1. AGRICULTURE
2. ANIMAL HUSBANDARY
3. FISHERIES
4. LABOUR
5. FOOD
6. EDUCATION
7. INDUSTRIES
8. POLICE
9. HEALTH ETC.

THE PHILIPPINE STATISTICAL SYSTEM - ITS PERSPECTIVE IN THE 1990s

1.0 INTRODUCTION

A clearer view on the operational behavior of an organization can best be portrayed by initially presenting the structure, goals, policies and decision-making processes of that organization. For a statistical system, in particular, description of other facets , such as: coordination, planning, and capabilities of the system are added features contributing to a better understanding of the systems operation. This paper therefore discusses in brief the Philippine Statistical System (PSS) in the context of the mechanisms it has adopted in coordinating the multifarous agencies comprising the present membership under existing governmental policies, the linkages with its internal as well as external clienteles in the development of the national statistical plans and programs and relationship with international organizations on statistical matters.

2.0 HISTORICAL BACKGROUND

The national statistical system of the Philippines has evolved from a dynamic process greatly influenced by the political, economic and social policies promulgated by government at different periods of time. A highly decentralized system was effected in the early seventies when the government reorganized and had emphasized economic development planning as a major concern. As a consequence of this new thrust, research and statistics units were created to respond to the statistical data needs of the planning services in the various departments and line agencies of the government.

This set-up was adopted for about a decade and a half. In the early eighties, however, the disadvantages of a highly decentralized set-up was beginning to bear on the outputs of the system. Moreover, changes in government directions and technological advancement have rendered the set-up as no longer practical and efficient. In this cognizance, key professionals in the statistical arena saw fit to recommend a thorough review of the system to make it more relevant to the needs of the times. Accordingly, a study was conducted in 1986. Among the recommendations submitted by the special committee tasked to the review the Philippine statistical system was "the restructuring of the major organizations of the system as well as the establishment of stronger support mechanisms for coordination and for enhancing the internal capability of the system."

The efforts of the committee to review the statistical system culminated in the signing of an executive order in 1987 reorganizing the Philippine Statistical System. Pursuant to Executive Order No. 121 entitled ***Reorganizing and Strengthening the Philippine Statistical System and for Other Purposes***, the PSS remains highly decentralized but with some structural and functional changes. A more efficient coordination mechanism was highlighted as a key improvement factor. Redundant functionaries in the previous statistical system were abolished whereas stronger coordination features were introduced to ascertain the attainment of the twin goals of (a) maintaining a system characterized by independence, objectivity and integrity, and (b) the orderly development of a system capable of providing timely, accurate and useful data for planning and decision-making.

3.0 PSS COMPOSITION

Executive Order No. 121 explicitly defines that the Philippine Statistical System "shall consist of statistical organizations at all administative levels, the personnel therein and the national statistical program. This includes a policy-making and coordinating body, a statistical research and training center, a single general purpose statistical agency, all ministries, bureaus, offices, agencies and instrumentalities of the national and local government and all government-owned and controlled corporations and their subsidiaries that are engaged in statistical activities either as their primary functions or as part of their administrative or regulatory functions." The E.O. further states that "the PSS shall remain decentralized with a strong coordination feature to be achieved through closer linkage between statistical programming and budgeting".

The dominant organizations in the system at present are the National Statistical Coordination Board (NSCB) which is the highest policy-making and coordinating body on all statistical matters by virtue of E.O. 121; the National Statistics Office (NSO), the single general purpose statistical agency that provides data on business establishments, population and housing, family income and expenditures, demography and household-operated activities; the Statistical Research and Training Center (SRTC) which provides research and non-degree training support to the system; the Bureau of Agricultural Statistics (BAS), and the Bureau of Labor and Employment Statistics (BLES). (Chart 1).

4.0 STATISTICAL COORDINATION MECHANISMS

With the recognition that the present Philippine Statistical System is too decentralized and that strengthened coordination is essential to fully effect an efficient system, Executive Order No. 121 provided for the establishment of institutional as well an non-institutional mechanisms which are expected to adequately address this deficiency.

4.1 **The NSCB**. Among the major institutional changes that was effected with the signing of E.O.1 121 was the creation of the National Statistical Coordination Board (NSCB) "which shall be the highest policy-making and coordinating body on statistical matters". By virtue of the E.O., the decisions of the NSCB on that respect are final and executory.

Powers and Functions. The E.O. states that the NSCB has the following powers and functions:

a. Promote and maintain an efficient statistical system in the government;

b. Formulate policies on all matters relating to government statistical operations;

c. Recommend executive and legislative measures to enhance the development and efficiency of the system, including the internal structure of statistical agencies;

d. Establish appropriate mechanisms for statistical coordination at the regional, provincial and city levels;

e. Approve the Philippine Statistical Development Program;

f. Allocate statistical responsibilities among government agencies by designating the statistics to be collected by them, including their periodicity and content;

g. Review proposals involving the statistical operations and submit an integrated budget for the PSS to the Department of Budget and Management (DBM);

h. Review and clear, prior to release, all funds for statistical operations;

i. Develop, prescribe, and maintain appropriate framework for the improvement of statistical coordination; and,

j. Prescribe uniform standards and classification systems in government statistics.

Composition. The strength of the NSCB as a coordinating and policy-making body lies significantly on its composition. Not only is government well-represented but likewise the private sector. At its helm is the the Director-General of the National Economic and Development Authority (NEDA), the government's primary planning agency, who acts as the Board Chairman. He is assisted by the Undersecretary of the Department of Budget and Management (DBM) who acts as the Board Vice-Chairman. Each department is represented by its undersecretary who sits as a member of the Board along with the other members, namely, the Deputy Governor of the Central Bank, the Secretary-General of the NSCB, the Administrator of the NSO, and the Executive Director of the SRTC. The local government is represented by the Governor or the City Mayor nominated by the League of Governors while the private sector is represented by the Executive Secretary of the Philippine Chamber of Commerce and Industry, who was elected by the other members of the Board. (Chart 1 A).

Coordinative functions exercised by the system are many and varied. The schemes range from statistical planning and funds programming, setting of statistical standards, development and maintenance of statistical frameworks, information servicing and marketing, to statistical fora and research. Essentially the mechanisms work along the improvement of data production and utilization, increased involvement of statisticians in the designing of data collection, judicious allocation of the limited resources, closer rapport between data users and producers, smooth integration of the different data sets and data files. The injections of the functions to review statistical projects and activities prior to the release of funds for their operations reinforced the system with the necessary clout to avoid unnecessary duplicative statistical efforts and the data producers' adherance to prescribed methods and techniques. More importantly, coordination through statistical conventions and conferences have influenced the directions of statistical activities in government, research institutions and the academe, and ultimately the planners and decision-makers on the proper interpretation and adoption of statistics. (Charts 2 & 3).

4.2 Inter-Agency Committees. With the present set-up of a decentralized statistical system, the resolution of issues, gaps and problems that beset it thus becomes a multi-agency concern. In view of this, E.O. 121 has authorized the NSCB to "create interagency committees (IAC) to assist it in the exercise of its functions." Thus, the NSCB has created several inter-agency committees to attend to the resolution of the most pressing statistical concerns. They are the following:

a) IAC on Labor, Income and Employment;

b) IAC on the 1990 Census of Population & Housing;

c) IAC on the 1990 Census of Agriculture & Fisheries;

d) IAC on Vital Statistics;

e) Task Force (TF) on Government Labor Statistics;

f) TF to Review Existing Duplication in the NSO & BAS Surveys;

g) Technical Committee (TC) on Survey Design;

h) TF on International Migration Statistics;

i) TC on Population & Housing Statistics;

j) TC on Standards & Classification; and

k) IAC on Financial Statistics.

4.3 The Survey Review and Clearance System. In the effort to ensure that surveys will be conducted most efficiently and therefore produce the desired data given the time and budget constraints, a mechanism has been instituted to oblige the proponent agency to submit the design and intruments to be used in the survey for review and clearance. This is the Survey Review and Clearance System currently being promulgated by the NSCB. Under this system, a survey (500 or more respondents for households and 200 or more for establishments) submitted to the the NSCB shall undergo review and clearance by a technical committee that has been created for the purpose. Thereafter, a clearance number is issued and correspondingly printed on the approved form. The mark indicates official approval of the survey and ensures non-duplication in the collection of the same information from the source group of respondents, and sound operation by adopting standard techniques and methdologies.

In its initial year of implementation, compliance to the requirement has not been very satisfactory. Nonetheless, measures to improve the system have already been devised including the revision of the SSN application forms, information campaign to elicit agency cooperation, through the media and meeting with private sector and local government representative.

4.4 Mechanisms for Regional Coordination. Viewed in the context of the government's policies towards decentralization, the thrust to develop the statistical systems in the regions is

imperative. Statistics should be attuned to the emerging needs. It should be responsive and relevant to the requirements of development planning and policy formulation. Henceforth, the developmental activities in the statistical system must be geared towards meeting the need for statistics at the different levels of government.

The fourth provision in Section 5 of E.O. 121 empowers the National Statistical Coordination Board (NSCB) to "establish appropriate mechanism for statistical coordination at the regional, provincial and city levels." In pursuit of this, the NSCB adopted two major strategies: create a project to experiment on a proposed integrated approaches in regional statistical coordination and the initiation of national linkages with the regional agencies by introducing regional statistical development coordination committees under the Regional Development Councils in non-project areas.

4.4.1 *The Regional Statistical System Development Project.* The Regional Statistical System Development Project (RSSDP) is a UNDP-assisted project which seeks to improve small area statistical data production and analysis, together with the need for better coordination between and among central and regional statistical agencies. For project period 1988-1989, the RSSDP piloted activities in two of the fourteen regions in the country, namely, the Ilocos Region (Region I) and Eastern Visayas Region (Region VIII).

The implementation strategy of RSSDP includes four major components: organization, training and professionalization, improved communication and improvement of data use and production systems. In its latest progress report, RSSDP has extensively implemented the programmed activities, most especially in strenghtening institutional linkages in the pilot regions invoking the assistance of the Regional Statistical Coordination and Development Committees (RSCDCs); initial steps in the development of the regional data banking systems; subsidized regional faculty scholarships at the UP Statistical Center and inventioned data needs in the provinces, cities and selected agencies in the two regions.

For the ensuing years, the above activities shall be duplicated in two other regions. Meanwhile, the development of the statistical systems at the provincial and municipal levels shall be initiated in the first two pilot regions.

4.4.2 *Regional Statistical Coordination and Development Committee (RSCDC).* To complement the RSSDP in coordinating the subnational statistical activities, the NSCB Technical Staff has launched the tri-dimensional approach in upgrading of the status of statistical development in the regions and filter down to the

provinces. The agency-oriented approach allows for 1) Data Demand and Supply Analysis, 2) Operational Management Analysis, and 3) Horizontal and Vertical Linkages Analysis.

The best strategy for the full implementation of the regional statistical development plans was the creation of regional statistical units similar to the NSCB in Manila. This option, however, was not made available to the PSS as of yet due to the financial limitations of the present government. Nonetheless, other options were resorted to. In lieu, NSCB staff members from the Central Office shall be occasionally fielded to the regions, conduct the assessment survey and lend a hand in the creation of the RSCDCs which will be under the supervision of the Regional Development Councils. The organization and maintenance of these committees shall be supervised and managed by the NSCB teams through regular visits and monitoring the committee activities.

Functionally, the RSCDCs shall be empowered to identify the statistical activities in the regions and provide the direction for its development, promulgate policies on statistical matters which could be elevated to the NSCB, oversee implementation in the regions of NSCB approved policies, create inter-agency committees or task forces to resolve technical issues and institute measures to ensure efficient production, interpretation and utilization of statistics in area planning and project monitoring.

For the 1990s, it is envisioned that regionalized statistics will portray a more organized system replete with the necessary statistical frameworks, implementation of identified priority projects, intensified human resourse development and provision of affordable information infrastructures.

5.0 STATISTICAL PLANNING AND FUNDS PROGRAMMING

The Executive Order creating the NSCB stipulates that the Board "shall be responsible for the review and prioritization of statistical activities in coordination with approprriate government agencies, given the budgetary ceiling provided by the Department of Budget and Management and for determining how the available financial resources will be allocated among the prioritized activities."

In general, statistical planning and programming are aimed at the promotion and maintenance of an effective and efficient statistical system by insuring that it comes up with data relevant to the emerging needs in terms of timeliness, degree of disaggregation and accuracy, and likewise within the given constraints.

5.1 *Statistical Planning*. Statistical planning and programming follows a circular pattern although its inputs vary according to the type of planning and the system goals. Preparatory for proceeding to the planning exercise are initial steps to ascertain the statistical data needs of the national economic and social development goals, the status of the existing data production system and identifiable problem and issues which may affect the implementation of the programmed activities. Statistical frameworks are either updated or newly developed to provide the basis in determining what data series are to be generated or maintained by the system. The same frameworks become instruments for the evaluation of the quality of data being produced.

The national policies and guidelines are thus set by the NSCB based on the resulting analytical review. These are later translated into sectoral programs and corresponding statistical activities. At the other end of the paradigm, the statistical agencies submit their plans and programs by means of their statistical calendar, consisting of on-going and proposed statistical plans and programs. The whole planning system may be regarded as a top-down, bottoms-up affair. (Chart 4).

5.2 *Statistical Calendar*. The Statistical Calendar is a novel tool used in harnessing the agency's statistical plans. The calendar is some sort of an inventory of statistical activities along with their objectives and the outputs that can be expected out of them. Also indicated in the calendar, beside the output column, is the estimated time that such output is released or made available.

The statistical activities are correspondingly categorized as follows:

I. *Data Production/Improvement* - This refers to a) Conduct of census/es or statistical surveys; b) Designing or Processing of Administrative reporting forms; c) Statistical analysis of secondary data

II. *Statistical Research and Analysis* - The UN definition of research and anlysis has been adopted to guide the agencies on what particular activities could be classed as such. Generally, the study on sampling techniques for special kinds of population, the research on inputation and estimation techniques, methodology producing small area statistics are included here.

III. *Institution Building* - This refers to the enhancement of the agency's capability by means of creating a statistical unit or by merely improving an existing statistical unit by providing personnel (Statistics or EDP Staff) and/or suitable EDP facilities.

IV. *Statistical Manpower Development* - The decisive factor in the performance of a statistical agency is the competence of its staff. Training on more advanced statistical or mathematical techniques may be planned for those with basic education on mathematics or statistics whereas seminars on applied statistics or on-the-job training are encouraged to supplement the educational background of non-statistics degree holders.

5.3 *The PSDP*. The statistical calendars submitted by the various government units is one major consideration in the formulation of the statistical development plan for the country, the Philippine Statistical Development Program (PSDP). In the same way that the resolution of gaps and issues in the system is a multi-agency concern, the formulation of the PSDP is an undertaking which likewise involves the various units, if not all, of the Philippine government with NSCB as the primary coordinating arm. Moreover, it goes through a number of stages which begins with the formulation of the statisticcal calendar (agency activity) simultaneous with the identification thrust and strategies and sectoral objectives for the plan period covered (NSCB Technical Staff activity). Consultative sectoral meetings follow the consolidation and sectoral reviews to firm up the final listing and arrive at the finalized sectoral/agency programs. The public hearings, infused in the process not only elicit recommendations for the improvement of the statistical plans and programs but nonetheless elicit the full support of all cncerned groups including the private sector on the undertakings of the PSS.

A comprehensive PSDP is thus drawn up and is contained in a publication released to the public for information and policy guidance.

The Task Force assigned to review and integrate the various components of the Philippine Statistical Development Program 1990-1992 has considered the following development thrusts in achieving enhanced capability of the PSS from 1990 to 1992:

1. Establishment of a regional statistical system supportive of planning and decision-making.

2. Balanced development of economic and social statistics.

3. Development of priority statistical data bases thru the use of modern and advanced technologies.

In view of the above, the following strategies will be adopted:

1. Institutionalization and strengthening of statistical coordination at the national level;

2. Establishment of mechanisms for regional statistical coordination;

3. Intensification of statistical training programs at national and sub-national levels;

4. Optimum utilization of administrative reporting forms to generate statistics;

5. Enhancement of R & D on statistical methods and techniques;

6. Acquisition of computers and development of computer skills of statistical personnel;

7. Development of master frames for sample surveys;

8. Improvement of the promotion and dissemination and statistical products; and

9. Development of frameworks for social statistics.

5.4 *Funds Programming*. One of the NSCB's powers and functions is to undertake budgetary review of agency statistical opertions. This new function is further stipulated in SEc. 20 of E.O. 121 as follows:

> **Section 20. Funds Programming. The NSCB shall be responsible for the review and prioritization of statistical activities in coordination with appropriate government agencies, given the budgetary ceiling provided by the DBM. The NSCB will also be responsible for determining how the available financial resources will be allocated among the prioritized activities. The DBM shall release the funds in accordance with the priorities set by the NSCB."**

Section 5 of the same fiat further states that the NSCB is mandated to submit an integrated budget for the PSS to the DBM. The budget review and clearance system is the added new feature of the reorganized PSS that is envisioned to enhance efforts towards efficient statistical coordination at both the national

and sub-national levels. This function is expected to promote closer linkage between statistical programming and budgeting for it is strongly believed that in order for statistical plans and programs to be fully implemented and executed, it will have to be supported by the corresponding funds or resources which have been programmed accordingly. The procedure and guidelines implementing this function was contained in a joint memorandum circular released to all government agencies for compliance.

For 1988 and 1989 budget preparation and budget execution processes, the NSCB covered only the statistical budget of the central offices and seven government statistical agencies. For CY 1990, the coverage has been expanded to include the regional offices of the NSO, one of major statistical agencies in the system. All agencies at both the national and regional levels are targetted to be covered by this system in due time.

6.0 INTERNATIONAL ORGANIZATIONS LINKAGES

Data Exchange. While the thrust of the government is towards the full development and strengthening of the national statistical system of our nation, it likewise recognizes the need for the enhancement of our international statistical linkages. To this effect, E.O. 121 provides that the NSCB Technical Staff shall, among other, "Serve as the statistical clearing house and liaison for international statistical matters." Numerous data requests from international agencies or organization are thus coursed through the NSCB for the past two years. Among the NSCB's regular clients are the Economic and Social Commission for Asia and the Pacific (ESCAP), the United Nations Statistics Organization (UNSO) and the UN FAO.

On the other hand, the PSS has benefited from the UN publications in the development and/or maintenance of standard classification systems. The Philippine Standard Commodity Classifications, Revised released this year, has been derived from the SITC, Rev. 3 and the Harmonized Commodity Description and Coding System of the CCCN; the Philippine Standard Industrial Classification will be using the International Standard Industrial Classification, Rev 3, to be prepared 1991, the Philippine Standard Occupational Education (1990) referring to International Classification of Occupation, (1988), International Standard Classification of Education, (1976), for the Philippine Standard Classification of the developed are Central Product Classification, using UNSO Central Product Classifiction for the remaining program period 1991-1992.

More than attending to these matters, the NSCB as well as the other statistical agencies in the system are into several other projects or activities with international dimension.

Experts Exchange. Over the last five years or so, the PSS has benefited much from the expertise of several consultants from various international agencies. At the NSO, for instance, foreign-based statistical experts are periodically consulted in the implementation, monitoring and/or evaluation/assessment of their activities. The same is true for the Bureau of Agricultural Statistics (BAS) and the Bureau of Labor Statistics (BLES). In the same manner, much of the planning for the implementation of the RSSDP has been the work of a UN expert who acted as Project Consultant for almost a year.

The expertise of the Filipino statistician has likewise been recognized beyond Philippine shores. The previous NEDA Deputy Director General on Statistics served as the SIAP Project Director and has now been an ESCAP consultant for about two years after he retired from the government service in 1986. Current NSCB Secretary General has likewise been hired as ADB consultant in the establishment of the national accounting system of Vanuatu from 1985 to 1987. Several other Filipinos have been invited to share their expertise in statistics elsewhere in Asia and other parts of the world.

In addition to these, the Philippines has likewise been host to a number of foreign-based statistical delegations to have come to our country to observe the operations of the statistical system Philippine-style. Other delegations have also come over to share their expertise to statistical workers in the country such as the case with the UNIDO experts who came to be consulted on Industrial Data Bases development.

SEA Statistics Seminar. The Philippines has always been active in international fora for the advancement of statistics in Asia and elsewhere in the world. In fact. we have been a member state of the Statistical Institute for Asia and the Pacific (SIAP) since its inception in the early 1970's to which we have been making financial contributions annually. For 1989, the Philippine Statistical Association will have its turn in hosting the biennial gathering of statisticians of the Association of Southeast Asian Nations (ASEAN) which will be held in Manila come December.

Manpower Development. The Philippines has also been beneficiaries of international scholarship grants in statistics which are largely either UN-sponsored or results of bilateral agreements between our government and that of other nations. Several Filipino scholars have already completed their studies abroad under these programs and are currently contributing their share in the improvement of the statistical system of the country. Also, through the UNDP-funded Statistical Education and Support Project (SESP), several Filipinos have also been awarded local training grants in masteral and doctorate studies in statistics thereby further enhancing the professional expertise of statistical workers in the country.

7.0 THE PSS IN THE 1990s

In the effort to make the system truly responsive to the needs of the times, the Philippine Statistical System has once again undergone major changes in the 80s which included both structural reforms and the injection of new coordination features. For the rest of the decade, these newly-introduced changes will be tested and further reinforced .

The dynamic character of the Philippine Statistical System will continue to prevail and is expected to permeate the 1990s with greater intensity and strength. This is so because there is still so much to do and several obstacles need to be hurdled yet in order for a truly efficient, effective and relevant statistical system for the Philippines can come into being.

7.1 *Increased Appreciation for Statistics.* Perhaps the most insurmountable problem that we have to address in the coming decade is the need to increase the Filipino's recognition of statistics as an influential tool in national planning and decision-making and, therefore, a potent force behind the economic and social growth of the nation. At present, statistics is generally equated with mere tabulation and collation activities. Moreover, statistical work is generally regarded as lowly and clerical.

To a large extent, the low regard accorded to statistics has affected the outputs of the statistical system in the country. We have difficulty soliciting cooperation from say, households or business establishments because of this very reason. Also because of the belittled value of data that can be gathered from survey or census activities that "inventing" responses or "doctoring" of figures are common occurrences in the field operations and the processing of results.

Efforts toward the upliftment of statistics as an influential planning tool and as a highly professional field has already been initiated with the issuance of E.O. 121. In the 1990s, these efforts will have to be intensified and new strategies may have to be adopted to speed up the process.

7.2 *The Philippine Statistical Act.* The activities undertaken in the Philippine system of statistics is mandated by separately-issued unrelated laws and ordinances. To these belong the legal issuances behind the Census of Population and Housing, the Census of Agriculture and Fisheries and the Census of Buildings. Statistical activities of the smaller scale are likewise based on special acts or ordinances. The most recent issuance of this kind is E.O. 121 itself.

Unlike many other statistical systems of other nations, the Philippine system does not have a single law or measure that integrates the statistical activities of the highly decentralized PSS. Intrinsically, what we need is an integrated statistical legislature. This will also reinforce efforts towards increased appreciation for statistical activities and outputs.

7.3 *Increased participation of the management and the private sector in the system's statistical processes.* The private sector is both a user and supplier of statistics. Thus being, its vital role in the improvement of the operations of the PSS cannot but be underscored. The private sector most especially organized business groups or associations have not been very cooperative in terms of giving information as regards their businesses and related matters. It is understandable for these information to be treated very confidentially by them. But since these same information are vital inputs to the activities of the PSS, we will have to exert efforts in gathering them.

In this regard, consultations with the private sectors in planning for statistical undertakings coupled with intensified information campaigns may contribute a lot to resolve this problem. It is thus essential to aim for participation particularly of managers of these private organizations. The policies on statistical matters deal mostly on the different levels of planning - strategies, socio-technical and technical - all of which are decisive factors in enhancing the capability of any organization.

7.4 *Problem of data communication which has been prevented system networking.* The computer has been causing a revolution in the field of data processing. Not only is it allowing traditional data processing tasks to be prepared faster, but the computer also encourages the use of new and different techniques. In the Philippines, the computerized data processing has been increasing incessantly through the years, the latest count being 5,101 systems (from micros to minis to mainframe to network systems) in government alone. The regrettable part of it is the inability to establish linkage between and among the various statistical data producers and the users into a network system, long dreamed even by the country's national computer center. Data sharing systems with on-line capabilities can be one of the fastest mode of data dissemination, and an economical scheme. However, the availability of data communications is still a myth.

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Chart 1. PHILIPPINE STATISTICAL SYSTEM & LINKAGES

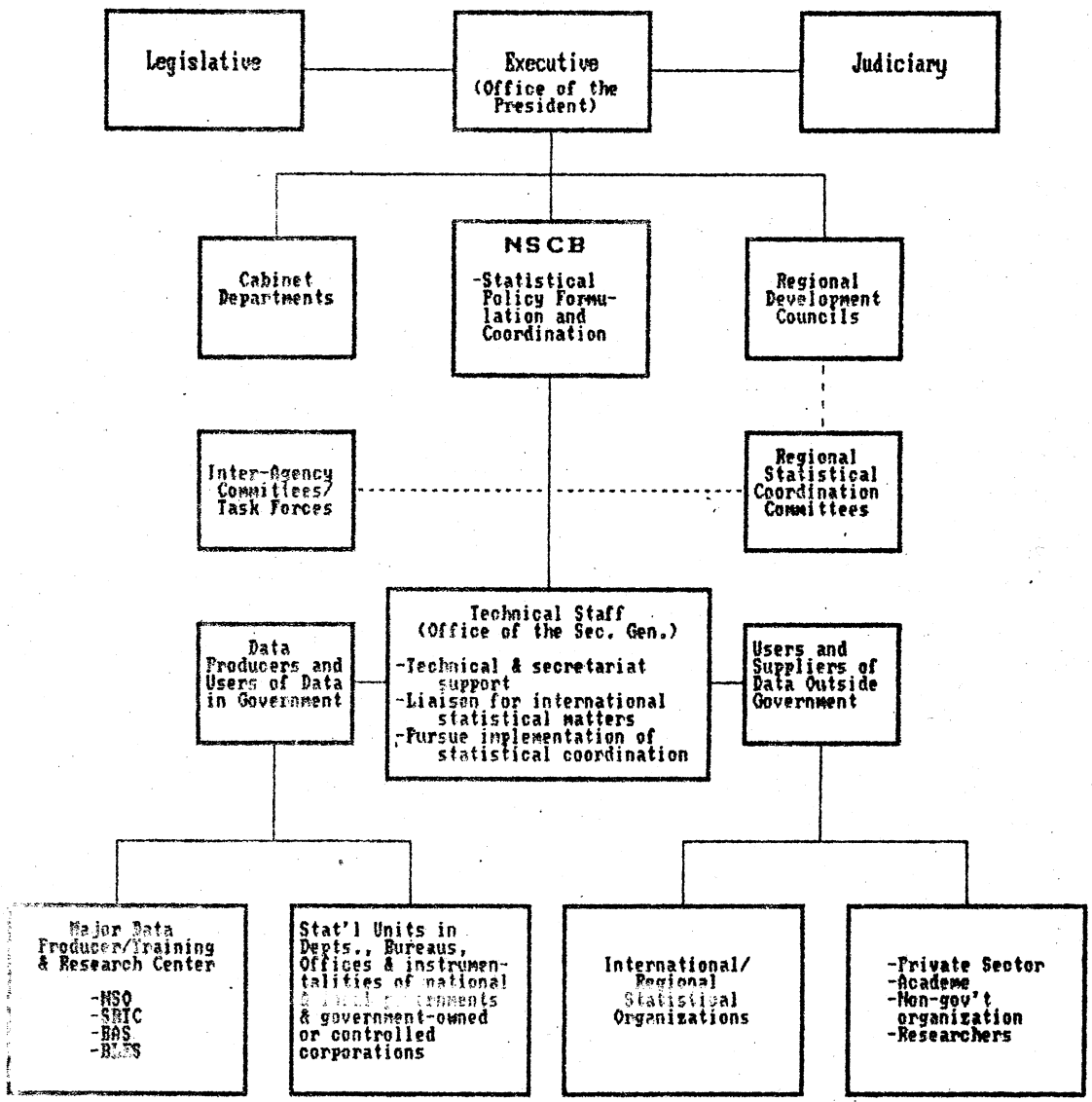


Chart 1A. COMPOSITION OF THE NATIONAL STATISTICAL COORDINATION BOARD

Chairman : Director-General, National Economic and Development Authority

Vice-Chairman : Undersecretary, Department of Budget and Management

Members : 1) Undersecretaries of the following Departments:

- Agriculture
- Education, Culture and Sports
- Environment and Natural Resources
- Finance
- Foreign Affairs
- Health
- Justice
- Labor and Employment
- National Defense
- Public Works and Highways
- Social Welfare and Development
- Science and Technology
- Transportation and Communication

2) Deputy Governor, Central Bank

3) Secretary General, NSCB

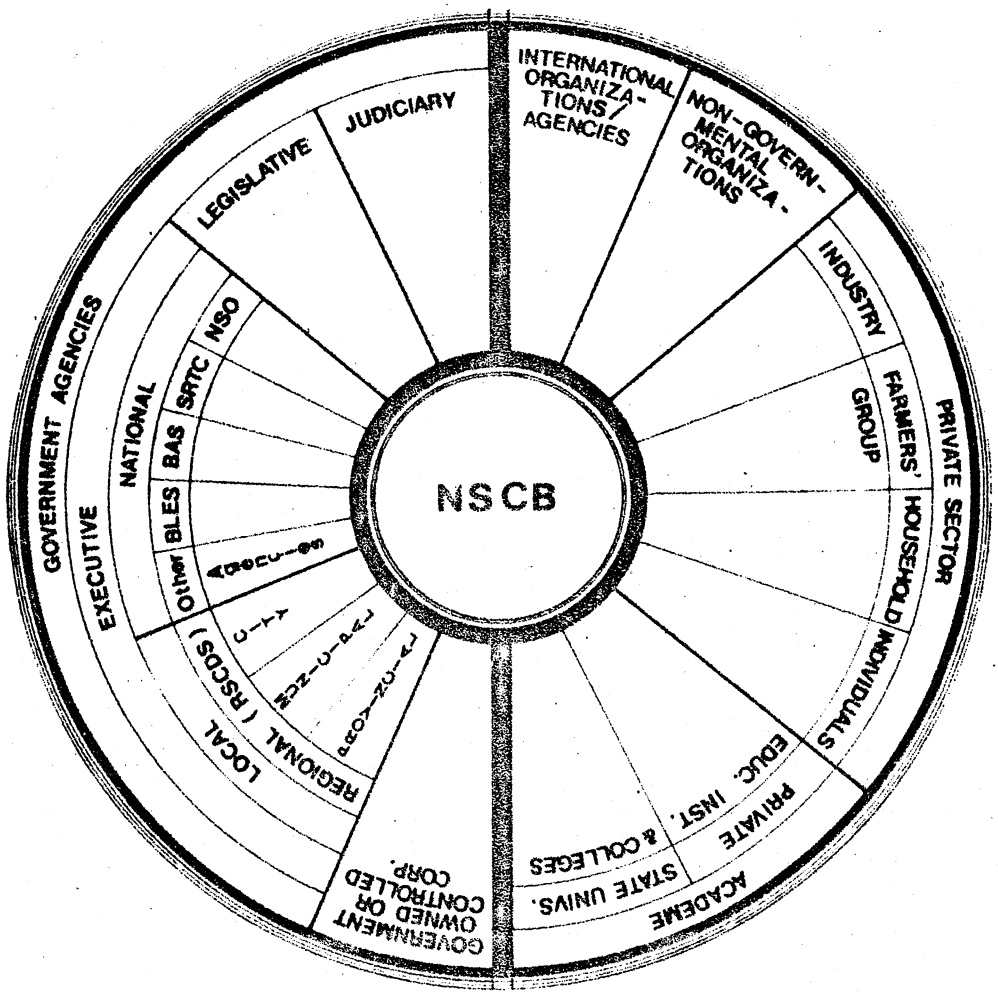
4) Administrator, National Statistics Office

5) Executive DIrector, Statistical Research and Training Center

6) Governor or City Mayor nominated by the League of Governors and CIty Mayors

7) Representative from the Philippine Chamber of Commerce and Industry

Chart 2. STATISTICAL COORDINATION IN THE PHILIPPINES



NSCB - NATIONAL STATISTICAL COORDINATION BOARD
NSO - NATIONAL STATISTICS OFFICE
SRTC - STATISTICAL RESEARCH AND TRAINING CENTER
BAS - BUREAU OF AGRICULTURAL STATISTICS
BLES - BUREAU OF LABOR AND EMPLOYMENT STATISTICS
RSCDC - REGIONAL STATISTICAL COORDINATION AND DEVELOPMENT COMMITTEE

Chart 3. Organizational Chart of the NSCB TECHNICAL STAFF

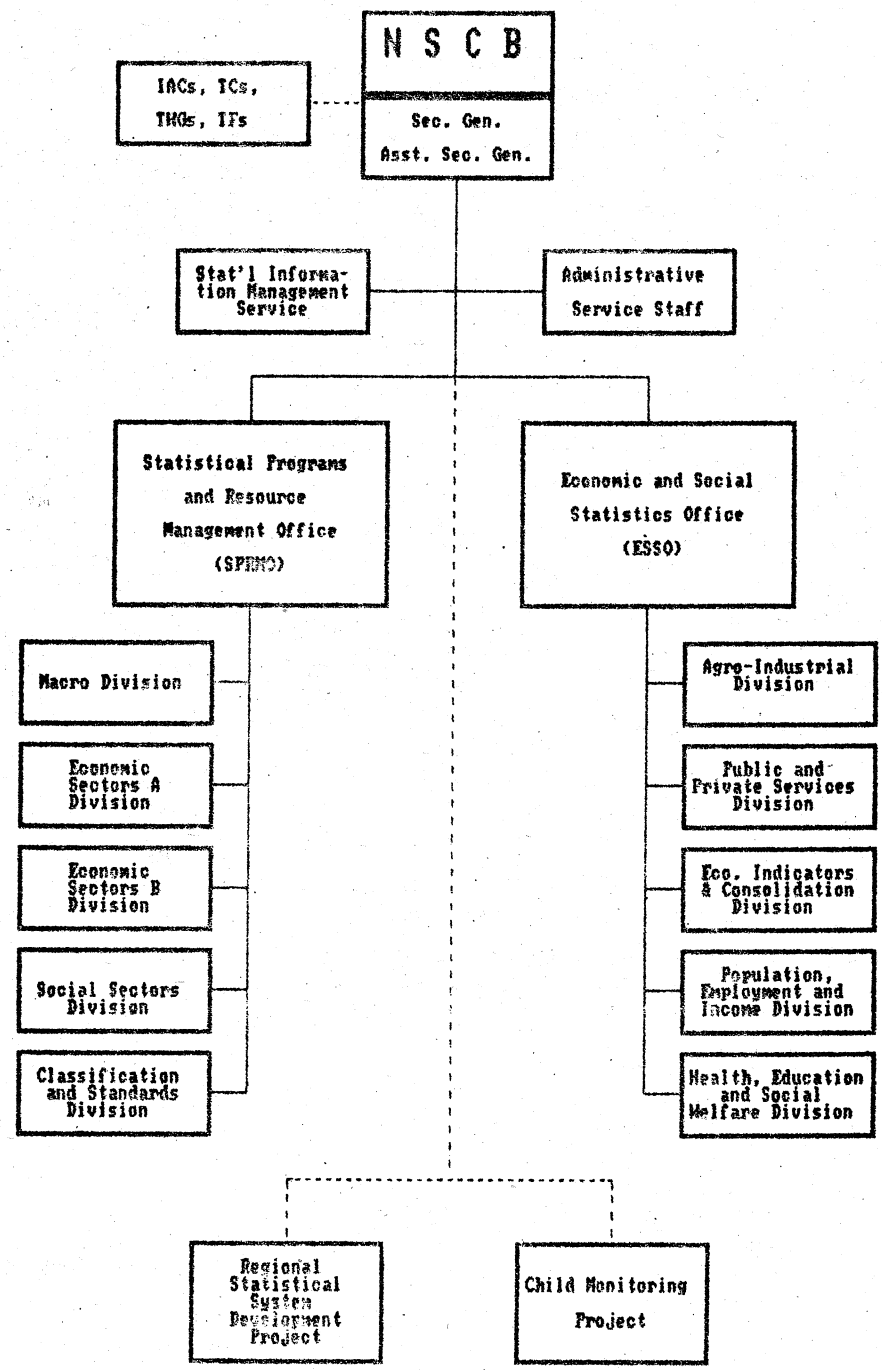
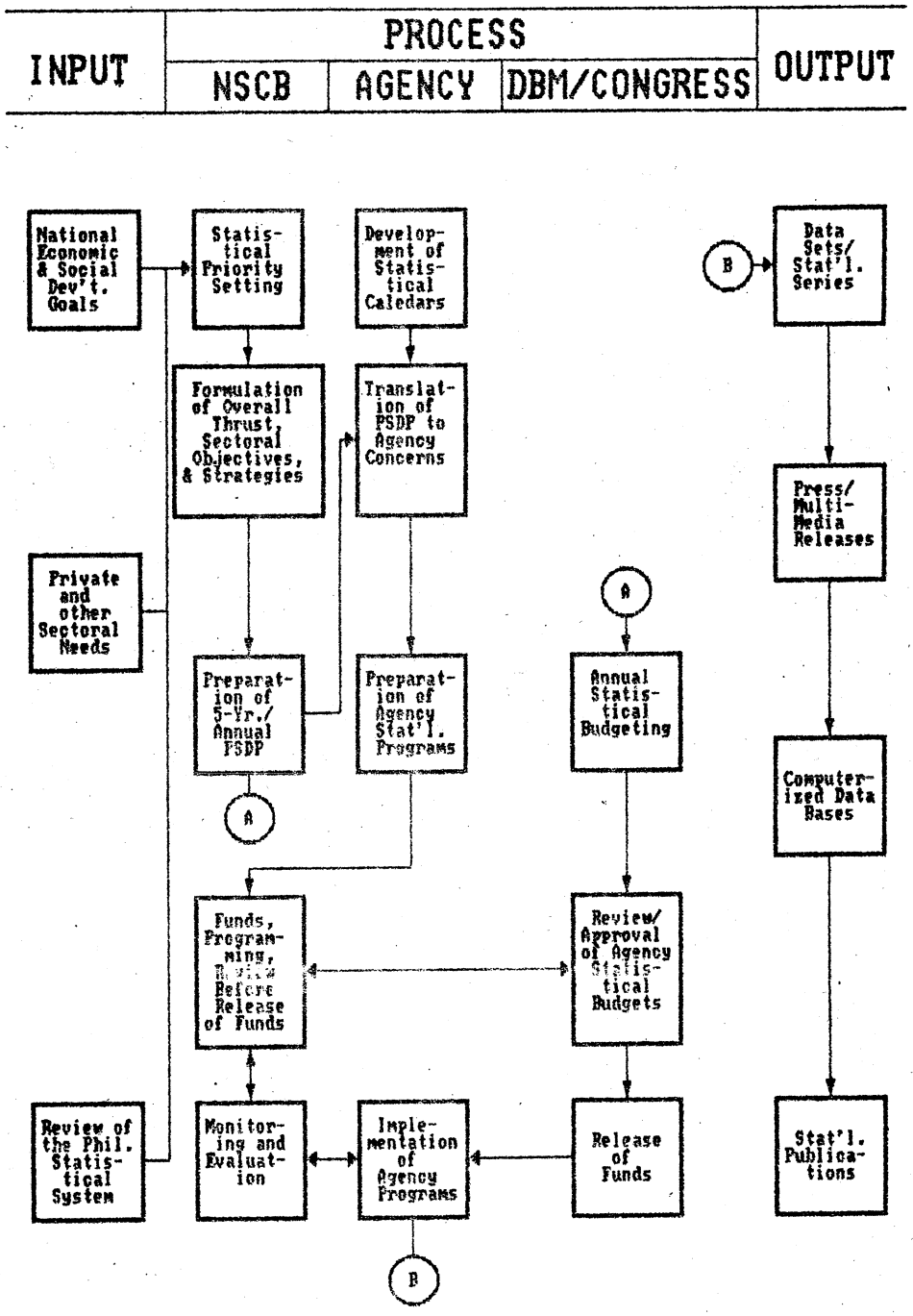


Chart 4. FLOWCHART OF STATISTICAL PLANNING, FUNDS PROGRAMMING & DATA GENERATION



1. Introduction:

The first unit in Western Samoa was established in early 1963 as a section of the Prime Ministers Department and was known as the Bureau of Statistics. It was established with United Nations assistance to provide necessary information for social and economic planning of the country. Before the establishment of the Bureau of Statistics, government departments and organisations were keeping their own statistics and these were never put together in any form of publication. As in any new field of activity the initial stage or the first year is always the most labourious and difficult stage of development. It was the first task of the Bureau of Statistics to contact the different departments, and organisations and find out what kind of statistics that were available and in what form. With a very limited staff of three in the first year, the collection of statistics was done by visiting each department and organisations and extracting the data from their records. The data collected in the first year (1963) was compiled and published in the first Statistical Bulletin (Vol.I No.I) which was released in 1964.

Recognising the importance and usefulness of statistics for planning and policy making, Government in 1971 passed an Act which enabled the Bureau of Statistics to become an independent department and to be known as the Department of Statistics.

2. Functions:

The functions of the Department of Statistics as specified in the Statistics Act 1971 are as follows:
The Department of Statistics is responsible to the Minister of Statistics and Government, to advise the Government on matters pertaining to statistical work of Government Departments; to collect statistics and related information as to the economic, social, demographic and other characteristics and/or activities of persons businesses, other organisations and institutions; to collect, compile, analyse, and

disseminate official statistics and related information; to promote and assist non-governmental statistical activities and collaborate with non-governmental organisations in the collection, compilation, analysis and dissemination of statistical information obtained from records of such non-governmental organisations; and to take the censuses of population, housing and agriculture of Western Samoa. It is the principal agency responsible for providing Government with the statistics needed.

3. Statistics Advisory Board:

Incorporated in the Statistics Act 1971 is the constitution of a Statistics Advisory Board consisting of the Minister (who shall be the Chairman), the Financial Secretary, the Director of Economic Development, the Statistician and two other members to be appointed by the Head of State acting on the advice of Cabinet, one of whom shall be a representative of the Chamber of Commerce, of Western Samoa and the other a suitable person selected from the general public.

The functions of the Statistics Advisory Board is to review regularly the statistical needs of Government, and those of commerce and industry, academic and research bodies, and other users of official statistics in Western Samoa and in the light of such review to advise and direct the statistician regarding annual and five-yearly programmes of work and priorities in official statistics to be undertaken by the department to best serve the national interest.

4. Organisation:

There are two branches of the organisation of the Department. Brnanch I, the Administration branch, is responsible for the budgeting, recruiting personnel and general administration services. Branch II, the Technical branch, is divided into two sections: one responsible for economic, and finance statistics and the other responsible for demographic and social statistics. The Administration branch is headed by the Chief Executive Officer and the Technical branch by Senior Statisticians (Refer to Organisation Chart).

Sections are subdivided into divisions by subject matter fields.

5. Staff:

The total number of established posts in the department in the past years was 41 and with the setting up of the new data processing division this year the total is now 45. Throughout the years not all on these posts were filled which was due to officers leaving the department and also the delay in the filling up of these vacancies. This is a continuous problem of high staff turnover has a serious effect in the administration and organisation of the departments work plan. In the past few years we had the services of UN Volunteers. We have also had the services of Consultants and advisors in various statistical field for short period. Of the four statisticians in the department three are graduates from the University of the South Pacific and one is a graduate (diploma) from the International Institute of Population Science, Bombay India. The department also has a small Cartographic unit. The enumeration maps for the 1981 and 1986 censuses of population were prepared by this unit. At present they are updating the enumeration maps for the forthcoming Agriculture Census.

6. Training:

The Department of Statistics in its continuing endeavour to upgrade the technicle expertise of its staff, depends largely on, and utilizes whereever possible, overseas training opportunities offered by the United Nations and other organisations. All senior staff members of the department have attended overseas training. Except for new recruits most of the junior level staff have attended the basic SOAP course which was conducted here in 1987. Last year senior members of the staff conducted a basic mathematics and statistics course for the junior staff and we hope to continue it next year.

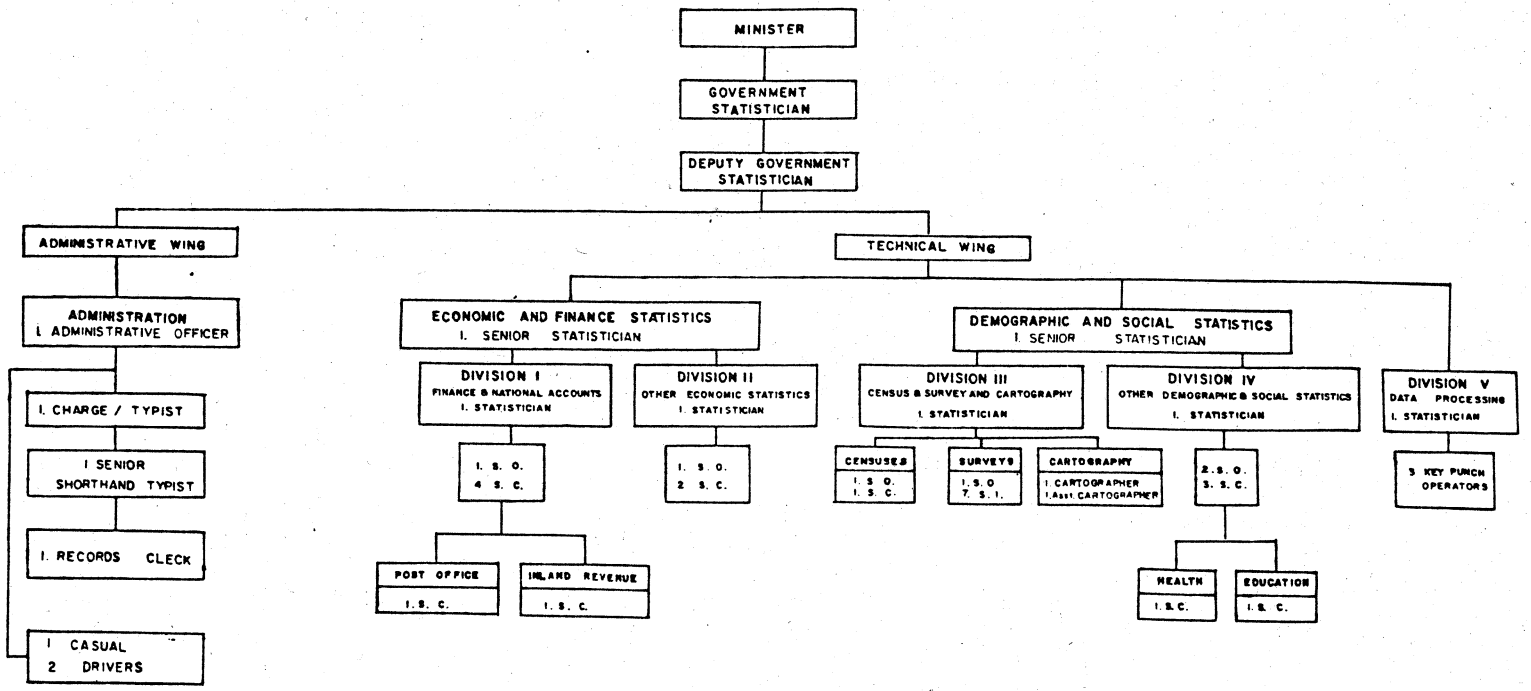
7. Publications:

The department publishes on a regular basis a Quarterly Statistical Bulletin and an Annual Statistical Abstract. The Consumer Price Index is released monthly and is also published in the departments regular publications. Since the beginning of 1982 a separate monthly release of tourist statistics has been issued. Statistics of Shipping are compiled monthly and are published in a separate report annually. Reports on the present on-going Vital Statistics Sample Survey have been released and the report for 1987 in a week's time. Data for 1988 are under processing. The report for the 1986 Consus of Population and Housing will be given for printing at the end of July, hoping to have it distributed before the end of the year. The departments regular publications are distributed to all departments, organisations etc. also to overseas organisations and institutions.

8. Questionnaires and Enquiries:

The department continued to receive questionnaires from various United Nations and other overseas organisations such as the Food and Agriculture Organisation (FAO) World Health Organisation (WHO) International Labour Organisation (ILO). The Economic Commission for Asia and the Pacific (ESCAP), International Monetary Fund (IMF), World Bank Asian Development Bank (ADB) South Pacific Commission (SPC), etc. Similarly enquiries from Government bodies, the private sector and individuals are also increasing. The Department of Economic Development always request the Department of Statistics for statistical information for the preparation of Government's Development Plans. The department tries its best to satisfy all enquiries received in spite of its limited staff.

DEPARTMENT OF STATISTICS ORGANIZATION CHART



The Operational Aspect of the National Statistical Office - Singapore

Prior to January 1971, the collection of statistics is centralised with the Department of Statistics which was created under the Statistics Act 1921 for the primary purpose of collecting, preparing and publishing official statistics. The Department was given the authority to collect statistics on immigration, emigration, meteorology, agriculture, mining, health, trade and commerce, importation, exportation, production and manufacture. It was also responsible for the collection of statistics on population.

In 1971, a new decentralised statistical system and a central co-ordination agency were established upon acceptance of the main recommendations of the Commission of Inquiry on Statistical Activities in Singapore. Under the decentralised statistical system, the Department of Statistics would be expanded and a Research and Statistical Unit be set in each of the Ministries of Labour, National Development, Education and Health. It was felt then that these ministries had statistical activities that were sufficiently complex, plentiful, specialised and nationally important as to warrant the establishment of a separate statistical unit within each of them.

The National Statistical Commission was officially established on 7 January 1972 as an autonomous statutory board to co-ordinate and promote statistical activities in all government ministries and statutory boards, to develop a statistical archive and to give expert advice on all matters relating to statistical compilation and utilization.

Since then further development towards the new decentralised statistical system have taken place. Statistical units of agencies similar to ones mentioned earlier have also been established in other ministries as well as statutory boards.

Having fulfilled its main function of establishing the Statistics Units and Research Units in various Government ministries and statutory boards, the National Statistical Commission was abolished in Oct 1983. The co-ordination role was taken over by the Department of Statistics. A Statistical Development Committee was set up under the Ministry of Trade and Industry to review statistical development in the public sector, minimise or avoid duplication of effort in data collection.

Statistical Legislation

Singapore has two main statistical laws governing the collection, compilation and publication of statistics by the Government. These are the Statistics Act, 1973 and the Census Act 1973. Apart from these Acts, there are other laws with some provision for the collection and publication of statistics by ministries and government departments as a by-product of administration. These include the Employment Act, Banking Act, Control of Imports and Exports Act, and Registration of Birth and Death Act.

Statistics Act

The Statistics Acts 1973 replaces the old Statistics Act which was found inadequate to meet current requirements and expanded scope of statistical activities especially with the development of the decentralised system. The Statistics Act 1973 gives the various

government statistical agencies the authority to collect, compile and publish statistics on a regular basis. As such as for the purpose of obtaining statistical information, it is lawful for a competent authority as specified in the Second Schedule of the Act to issue a requisition to any person to furnish particulars and supply information to him relating to any matter to which the Act applies. The old Act only allowed the Chief Statistician of the Department of Statistics the authority to collect statistics.

The Act also provides conditions for disclosure of information whilst at the same time providing adequate safeguard or protection to individuals supplying the information in order to maintain confidentiality of individual returns. The Act also provides penalties with regard to disclosure of information, wilful refusal to answer any question or wilful submission of false answer to any question necessary for obtaining any information or particular required to be furnished by the Act.

Census Act

The Census Act 1973 incorporating more up-to-date and extensive provisions for the taking of census replaces the old Census Act which only provided for the taking of a population census. As in the case of the Statistics Act, the Census Act 1973 also has provisions for the disclosure of information and confidentiality of individual returns as well as penalties for non-compliance with the provision of the Act.

Government Statistical Services

Under the decentralised system, a new common scheme of service was introduced. Under the new service, the top level of statisticians to the bottom level of

statistical assistants come under a closed and unified service throughout the government sector. This is to cater for the rather specialised personal needs and to maintain the staff recruited. Promotion prospects are only confined to qualified officers who are already in the service.

The recruitment of staff into the Government Statistical Service is undertaken by the Public Service Commission. The Commission is also responsible for the promotion and transfer of staff within the Government Service. Transfer of statistical staff between ministries is administered by the Chief Statistician.

Statistical Agencies in Government Ministries

The statistical agencies in Government ministries responsible for the collection, compilation and publication of statistics are as follows:

1 Department of Statistics, Ministry of Trade and Industry
2 Research and Statistics Department, Ministry of Labour
3 Information & Services Division, Ministry of Education
4 Research and Evaluation Department, Ministry of Health
5 Statistics Unit, Ministry of Home Affairs
6 Research and Statistics Unit, Ministry of National Development
7 Research and Statistics Branch, Ministry of Community Development
8 Public Service Division, Ministry of Finance
9 Statistical Unit, Ministry of the Environment
10 Statistics and Information Section, Public Service Commission

Department of Statistics

Department of Statistics is the principal producer of economic and demographic and social statistics. The Department is organised according to functional lines and subject matter. There are basically 3 Divisions each under a Director. The first is the Operational Statistics Division which covers basic economic statistics, namely national accounts, balance of payments, composite leading indicators, unit business cost, time-series database, and statistical publications. The second is the Survey Division which is responsible for the compilation of consumer price indices, wholesale price indices, annual surveys of the commerce and services sectors, monthly survey of retail sales, quarterly business expectations surveys and the maintenance of the establishment register. The third Division is tasked with statistical co-ordination in public sector, statistical classifications standards, data administration, demography, register of residential dwellings and population census.

Information and Services Division, Ministry of Education

This Unit is responsible for the collection, processing and compilation of routine educational statistics from all educational establishments. Data on teaching staff, performance in examinations, and educational expenditure are obtained for the general information of Government ministries, departments and statutory boards. The available data are also used for educational planning and policy making. The Unit also conducts surveys on special studies like school repeaters and dropouts, manpower at school level, students' out-of-classroom activities, language use pattern, etc.

Research and Evaluation Department, Ministry of Health

This Unit is responsible for compiling routine administrative and service statistics covering all aspects of the work of the Ministry. Health service statistics compiled cover topics such as hospitals, out-patient clinics and dispensaries, tuberculosis service, dental service, nursing, maternal and child health, school health, health education, etc. The Unit also conducts surveys on specific health problems and provides statistical service for medical personnel in certain research projects.

Statistics Unit, Ministry of Home Affairs

This Unit is responsible for the maintenance of the People's Hub as well as compiling routine statistics from the records of the departments under the purview of the Ministry of Home Affairs, such as immigration statistics, crime statistics, prisoner statistics, traffic offence and accident statistics, national registration statistics, etc. It also undertakes special statistical surveys for the purpose of collecting statistics for special studies or policy decision making.

Research and Statistics Department, Ministry of Labour

This Unit is mainly responsible for compiling statistics on labour. It conducts a number of surveys annually or at shorter regular intervals to collect information on labour cost, wage rates and labour market situation. It also conducts labour force surveys.

Research and Statistics Unit,
Ministry of National Development

The Unit is currently responsible for collecting and compiling Statistics on building plan approvals, building and construction activity, occupancy rates of various types of buildings and property price indices.

Statistical Agencies in Statutory Boards

The statistical agencies in statutory boards are as follows:

1 Management Information Branch, Central Provident Fund Board
2 Information Services Branch, Civil Aviation Authority of Singapore
3 Research and Statistics Unit, Economic Development Board
4 System and Research Department, Housing and Development Board
5 Research and Statistics Section, Jurong Town Corporation
6 Banking and Financial Institutions Department, Monetary Authority of Singapore
7 Research and Measurement Centre, National Productivity Board
8 Research and Planning Section, People's Association
9 Research and Statistics Section/Cargo Systems Department, Port of Singapore Authority
10 Corporate Planning Department, Public Utilities Board
11 Information and Research Division, Singapore Sports Council
15 Research Department, Singapore Tourist Promotion Board

16 Market Research Department/Business Strategy Division, Telecommunication Authority of Singapore

17 Research Unit/Planning Division, Urban Redevelopment Authority

The statutory boards collect information either from the administrative records or by conducting surveys. It includes economic data such as imports and exports, industrial production, monetary and financial statistics, earnings, air transport statistics, shipping and cargo statistics, and tourist statistics and social indicators. They also conduct surveys to collect data for specific studies.

THE NATIONAL STATISTICS ORGANISATION OF SRI LANKA

R.B.M. KORALE
Director
Department of Census Statistics

Introduction

The development of the statistical system in Sri Lanka is closely linked to the establishment of the Department of Census and Statistics (DCS) in 1947. Prior to its creation statistics were mainly compiled as by products of administrative records by various government departments or were collected independently by separate census units and statistical branches such as those which functioned under the control of the Ministry of Labour, Industry and Commerce in the 1930s. The decinnial censuses of population which were undertaken in Sri Lanka since 1871 were taken by the Registrar-General who functioned as the Superintendent of Census. The Census office was created primarily for undertaking of the census and its work was phased out on the completion of the task. There was no continuity in the activities undertaken from one census to the other. In order to meet the growing demand for comprehensive and reliable statistics by planners and policy makers institutional infrastructure had to be created and the DCS was established at the time the country gained independence to meet this need.

There are several other agencies which undertake statistical activities in the country, but the scale of their activities is relatively small except that which is undertaken by the Registrar-General in the collection of vital registration statistics. Comprehensive data on births, deaths and marriages are collected by the Registrar-General and the institutional machinery established reaches the lowest administrative units and the collection of information is empowered by legislation. The compilation of these statistics and their processing is undertaken by DCS using

its staff and data processing facilities. The Central Bank of Sri Lanka has been conducting a decinnial survey of consumer finances since 1953. Ir addition it also collects primary data on manufacturing industries and prepares a national accounts series. The Statistical Unit which was located within the Department of Economic Research was upgraded to that of a Department of Statistics in 1977. Then there are the research institutions which undertake statistical programmes relating to specific crops, production estimates, cost of production and related statistics. There are also research institutions, such as Marga which undertakes statistical activities of collecting primary data on socio-economic subjects, mainly on topics of research undertaken by them. Recently a number of private sector organisations have also engaged in small socio-economic surveys and case studies, financed by national and international agencies.

The government institutions undertaking statistical programmes generally utilise the professional staff of the DCS to design and implement these programmes. A directive issued in 1951 by the then Prime Minister states that it is the responsibility of the DCS to provide all statitical information required by government departments and that all staff required for this purpose should be provided under its votes has enabled the centralisation of statistical functions and ensures through this same means the co-ordination and standardization of statistical activities.

Thus DCS is the central government agency which is responsible for the collection, compilation, analysis and dissemination of statistical data and information requirements of the government and it is also charged with the functions of providing trained professional staff to all government agencies undertaking statistical services, and serves as a focal point performing the services of a central statistical organisation.

History

The Department of Census and Statistics had its origin in the statistics and Census Units of the Department of Commerce and Industries of the 1930s. The Census Section of the Department of Commerce and Industries was converted to the Census Department on 1st December 1944, with the appointment of the Superintendent of Census for the Population Census of March 1946. The Census Department and the Statistics Section of the Department of Commerce and Industries which was under the Minister of Labour, Industries and Commerce was unified and a new department titled the Department of Census, Statistics and Planning was created and assigned to the Ministry of Home Affairs by Government Gazette Notification of 29th September 1947. Provision was made in the Government Estimates of 1947/48 for a Director and an Additional Director of Statistics. But these posts were not filled and the Superintendent of Census functioned as the Director of Statistics as well. The Department of Census, Statistics and Planning was transferred from the Ministry of Home Affairs to the Ministry of Finance on 18th May 1948, and the designation of the Department was also changed to that of the Department of Census and Statistics.

Location of Statistical Function

The Department continued to function under the Ministry of Finance till 1970. With the change of government in May 1970 the Department was attached to the Ministry of Planning and Employment which functioned under the Prime Minister. In 1973 the Ministry of Planning and Employment was bifurcated into the Ministry of Planning and Economic Affairs and the Ministry of Plan Implementation and DCS was assigned to Ministry of Planning and Economic Affairs, both of which functioned under the Prime Minister. With the change of Government in July 1977 the subjects assigned to the Ministry of Planning and Economic Affairs were split into two and assigned to the Ministry of Plan Implementation and the Ministry of Finance and DCS

was assigned to the Ministry of Plan Implementation which functioned under the Prime Minister and later under the President with the Constitutional changes which created an Executive Presidential Form of Government in 1978. Except for a brief period in 1988 when the Ministry of Plan Implementation functioned under a separate Minister, it functioned under the President. With the creation of the Ministry of Policy Planning and Implementation under the President in February 1989, DCS was assigned to the new Ministry. Thus for nearly 2 decades the Department has functioned directly under the Chief Executive initially under the Prime Minister and later under the President as the Minister in charge of the subject, in close proximity to the principal users of statistics, such as the planning and plan implementation agencies.

The location of the statistical function is important to maintain statistical standards and to achieve effective co-ordination. This is also important as census and statistical activities cut across subjects and functions of line ministries, some of these agencies themselves require the organising and implementing of statistical and information programmes of their own. The appropriate location and assignment of the statistical function to an apex ministry, such as the Ministry of Planning and Economic Affairs and now to the Ministry of Policy Planning and Implementation is therefore significant to its development and for the provision of the services expected of it, particularly to ensure co-ordination of statistical activities, and to prevent duplication, and to insulate the statistical organisation from pressures and also to guarantee the confidentiality of the information of respondents both individual and corporate.

Confidentiality of Data and Response

Problems of non response and confidentiality of information have become major issues for statistical organisations. The accuracy of data and information gathered in censuses and surveys, and the response from both individuals and corporate organisations depend on the confidence they

have in the statistical organisation collecting information. It is vital for the respondent to be convinced and to accept the statistical services as one capable of maintaining the confidentiality of the information provided to it, and one that would prevent disclosure which would lead to the identification of the sources, ensure impartiality in both collection and disclosure of information on matters of public interest. The DCS is provided with legislation empowering it to collect statistical information and to protect the data disclosed by the respondents. The Census Ordinance (which was first enacted in 1866) and its amendments provides for the conduct of regular censuses on socio-economic subjects as determined by the Minister in charge of the Department with the Director functioning as the Superintendent of Census. The DCS also has legal authority under the Census Ordinance and Statistics Ordinance of 1935 to collect data from individuals and firms relating to personal and economic matters guaranteeing confidentiality to the respondents.

Objectives and Functions of DCS

As summarized in the annual estimates of the Government the objectives of the DCS are to collect, process, compile and disseminate statistical data relating to

1 Population and Housing
2 Agricultural Activities
3 Trade and Industries
4 National Accounts and Prices
5 Other Socio-Economic Activities of the country

To achieve these objectives, the following subjects and functions have been assigned to the Department.

(1) The collection, compilation, analysis and dissemination of primary statistical data and secondary statistical measures on the socio-economic and demographic aspects of the country and its people.

(2) Provision of statistical information needed by the Government, provincial and district administration for policy planning, programme implementation and review.

(3) Conduct socio-economic censuses and surveys and extract and compile statistical data from establishment and administrative records to obtain and supply statistical data.

(4) Co-ordination of statistical activities and programmes through the provision of trained staff needed by government institutions and administration of a network of subnational level statistical offices for collection and dessimination of statistics.

While some of these activities were entrusted to the DCS from its inception their scope however has increased over time. These include the conduct of socio-economic censuses, undertaking of national household and sectoral surveys, surveys of industrial establishments and trading activities, collection of data on subjects, such as health and housing conditions, educational attainment, size and composition of the latour force, levels of living, wages and prices, imports and exports and compilation of national accounts estimates and statistics on private consumption, government consumption, capital formation, trade indices and preparation of reports of surveys, analytical reports and other statistical data and information needed for administration, planning and policy review.

In addition to the provision of processed statistical data to users DCS has been assigned with responsibility in 3 or 4 other areas. One of which is the provision of user oriented outputs, such as construction of projections and forecasts of socio-economic parameters, construction and updating of socio-economic indicators and undertaking of special analytical studies and research. The paucity of demographers, econometricians and quantitative economists in planning and administrative positions has made it necessary for DCS to undertake these activities.

A second such area is the provision of advisory services on statistical subjects. Technical Divisions of the DCS are frequently called upon to help both public and private sector organisations on survey design and sampling. Government Ministries and Departments which have staff of the DCS often request advice on questionnaire design, sampling, survey taking, data processing, and related subjects. This colloboration with other organisations is important from the point of view of co-ordination of statistical programmes and activities.

Provision of assistance to government institutions in data processing is another important responsibility that has devolved on the DCS. The DCS was one of the first institutions in Sri Lanka to acquire computer capability which was towards the end of the 1960s. Since then DCS has been called upon to process the records of a number of organisations and these include the Treasury, the Registrar-General, Customs, Police, Labour, Ministry of Plan Implementation, Government Agencies, etc. Some of these institutions later installed computer facilities of their own and these services are no longer required by them. The computerization of the district statistical offices of the Department has also cast additional responsibilities on the Data Processing Division.

Organisation

The DCS is located as a Department within the Ministry of Policy Planning and Implementation of which the President is the Minister. The Ministry of Policy Planning and Implementation is an apex ministry with monitoring responsibilities to oversee economic and social policy planning and implementation by line ministries. The Secretary is the chief executive officer of the Ministry of Policy Planning and Implementation and the Director of Census and Statistics is directly responsible to him for the administration of the Department. The Department is administered by a Director and is organised with centrally located subject matter divisions which have been increased over time, service divisions for establishment,

financial and administration work and to give logistical support, and field offices at the sub national level and branch offices in Ministries and Departments. The total staff cadre of the Department in January 1989 was 1223 in all grades, a breakdown of staff is given below.

Table 1

Staff as at January 1989

Post	Cadre
Director	1
Additional Director	1
Accountant	1
Deputy Director/Data Processing Manager	4
Assistant Director upgraded to Deputy Director	10
Statistician	55
Statistical Officer	120
Statistical Investigator	459
Programmer/System Analyst	20
Computer Operations Assistant	1
Computer Supervisor (etc.)	10
Computer Operator	12
Data Entry Operator	73
Clerk	185
Stenographer	6
Typist	27
Other	238
Total	1223

Technical and Service Divisions at Head Quarters

The activities undertaken annually by the Department have been organised under 14 Technical and Service Divisions. Each Technical Division is in charge of an Assistant Director which post is now upgraded to Deputy Director. Statistical specialisations have been assigned as subjects to the relevant division. Technical Divisions have the responsibility of undertaking

censuses and surveys on subjects assigned to them. At the time of a census or large surveys the Division responsible is strengthened by financial support, re-deployment of staff and other inputs to undertake the programme. These Technical Divisions in addition to the compilation of secondary data and establishment statistics from institutions, specilising in these fields, offer technical advise on the collection and compilation and processing of statistics on the subject fields assigned to them. The Department lacks accommodation to house all the Divisions together and they are located in different buildings, both government and privately owned in close proximity to each other. The 14 Technical Divisions with the subjects assigned to them are listed below.

Division 1 Demography and Social Statistics Division
11 Independence Avenue, Colombo 7
Tel. 596277

Subjects

Conducts censuses of public sector employment; compiles corporation sector employment data, vital registration statistics, migration statistics, health statistics, employment, manpower and labour statistics, social welfare, crime, local government, election and building statistics.

Division 2 Trade and Industry Division
28 Kumaratunga Munidasa Mawatha, Colombo 7
Tel. 573430

Subjects

Collection and compilation of primary statistics on manufacturing industries and trade and services, Conduct of economic census and annual surveys of manufacturing industries, trade and service activities. Compilation of wholesale and retail prices and trade indices and statistics on energy, construction, transport and communication, co-operatives and tourism.

Division 3 Agriculture Division
3/1 Rajakeeya Mawatha, Colombo 7
Tel. 597891; 597646; 597592

Subjects

Conduct of decinnial census of agriculture and compilation of statistics of agriculture. livestock, forestry, and fisheries through annual surveys and using primary reporters; collection and compilation of statistics on paddy, highland crops, livestock products, cost of production of principal crops and preparation of indices on agricultural production, and food balance sheets.

Division 4 National Accounts and Prices Division
460 First Floor, Union Place, Colombo 2
Tel. 595936; 93382

Subjects

The main subjects assigned are to prepare the national accounts of Sri Lanka on the SNA System providing sectoral accounts and special accounts including income and outlay accounts, capital finance accounts, flow of funds, etc. and to work towards compilation of regional accounts. Construction of the Colombo Consumers Price Index, collection of producers prices of agricultural and livestock produce and district and urban retail prices. Construction of economic indicators, implicit price deflation, and input-output tables.

Division 5 Publications Division
2 Hewa Mawatha, Colombo 7
Tel. 596204

Subjects

Compilation of regular Departmental annual publications, such as the Statistical Abstract, Statistical Pocket Book, Annual Report and Supply of statistical information to various national and international users including the UN System. Processing of questionnaires for information sent by users.

Division 6 Library
11 Independence Avenue, Colombo 7
Tel. 598445

Subjects

Administration of the Departmental Reference Library. Acquisition of material, indexing of material, dissemination

of information to Technical Divisions and exchange of publications with international Statistical Bureaus and distribution of Departmental publications to special libraries.

Division 7 Data Processing Division
16/7 Albert Crescent, Colombo 7
Tel. 595962; 93663; 94321; 93306

Main functions are to computerize census and survey data and prepare tabulations in the formats required by the Technical Divisions. Maintenance of statistical data files to provide historical and time series data on socio-economic subjects. Provision of advisory services to field offices with computer facilities. Provision of data processing services to government Ministries and Departments which require such assistance. Establish an on-line Population Information Data Base by installing the necessary equipment and software for storage and retrieval of population and related data from censuses and surveys under the Project financed by JICA.

Division 8 Administration
6 Albert Crescent, Colombo 7
Tel. 92988; 595396

Subjects

The Division is responsible for all aspects of administration including recruitment, placement and disciplinary control of staff; processing of local and foreign training requests; provision of transport services and logistical support; budgetory and financial administration.

Division 9 Sample Survey Division
16 Barnes Place, Colombo 7
Tel. 597595; 597593; 597594

Subjects

Designing, planning and implementing national household surveys and conduct of other ad hoc surveys; provision of technical advice on sample survey methodology, questionnaire design, related instructions and analytical work to Branch Units in Department and sectoral agencies. Compilation of basic village level statistics, through village surveys to establish a Data Bank.

Division 10 Printing Division
16/7 Albert Crescent, Colombo 7
Tel. 91806

Subjects

The Division is responsible for publishing Departmental publications, survey schedules and instructions and related documents.

Division 11 Field Operations Division
2 Rewa Mawatha, Colombo 7
Tel. 596204

Subjects

Supervision of the work of the 25 District Statistical Offices and other field offices and the Statistical Branch Offices in Ministries and Departments. General co-ordination and servicing of field operations. Progress monitoring of the work of field staff deployed to Branch offices.

Division 12 Training and Research Division
11 Independence Avenue, Colombo 7
Tel. 598445

Subjects

In-service training of statistical personnel, organisation of training programmes in statistics for public organisations. Conducting Efficiency Bar Examinations for departmental staff; preparation of statistical training material and study aids.

Division 13 Statistical Co-ordination and Standards Division
3/1 Rajakeeya Mawatha, Colombo 7
Tel. 597591

Subjects

Organise regular consultation and meetings of Divisional heads of the Department for co-ordinating the work programme of the Divisions and to discuss problems encountered in implementing them. Establishment of inter-departmental co-ordination in order to ensure common statistical standards. Review of current statistical concepts and definitions in use, and adoption of international standards.

Division 14 Census of Population Division
16/7 Albert Crescent, Colombo 7
Tel. 598792; 544185; 595940; 595961

Subjects

Planning, designing and implementing the Census of Population and Housing; updating of frames of villages, census blocks and households for conducting socio-economic surveys. Development of census cartography for preparation of census area maps. Design of prelisting forms and questionnaires. Preparation of tabulation plans and conduct of pilot census; design of publicity material for the census; and provision of census and housing data for general and special users.

Field Offices

The country is divided into 9 Provinces, with 8 Provincial Councils and the Provinces are further sub divided into 25 districts and the districts into 280 AGA Divisions. The smallest administrative unit is the Grama Seva Division. DCS has a field organisation with Statistical Offices attached to the District Secretariats and it also reaches the AGA Divisions through a Statistical Investigator attached to each Divisional Office. This need to station a Statistical Investigator at this sub national level office with a Statistical Officer at the administrative head quarters of the district were policy decisions arrived at from almost the inception of the Department.

It was considered that this structure would provide for a smooth flow of statistical information from this level of sub national unit through the District Offices to the Centre and the transfer of national and disaggrgated data in the opposite direction. The presence of a Departmental Officer posted at this level has many distinct advantages of facilitating the collection and transmission of needed information, in both directions and for the collection of individual and corporate information which is treated as confidential, and of guaranteeing this confidentiality of information directly to the respondent. The availability of an officer who could be trained to

undertake specific tasks is specially useful in conducting censuses as this officer could be utilised as a trainer and could provide logistical support and liaise with the census staff when undertaking censuses.

In summary the main functions of the statistical field organisation is to provide the statistical data and information needs of institutions and organisations functioning in their areas and to assist the headquarter Technical Divisions in the design, collection and compilation of current data on the socio-economic condition of the population.

The District Statistical Offices are small and they have remained in the present form for more than 2 decades. They are headed by a sub-professional level officer and is staffed by 1 or 2 Statistical Investigators, a clerk and an office employee.

The decentralisation of the planning function through the establishment of district planning offices and the undertaking of regional development programmes and several sectoral programmes have increased the statistical information provision responsibilities of these offices. The establishment of the Provincial Council system with census taking being reserved as a function of the Centre further enhanced these responsibilities. The absence of any other statistical information provision agencies at this level would continue to increase the work of these offices, specially when detailed socio-economic planning for development is undertaken by the newly established Provincial Councils and Pradesheeya Sabhas.

In order to meet these increasing responsibilities upgrading of staff at this level and provision of data processing equipment to improve the information provision capabilities of these sub national level offices were accepted as important aspects of the statistical development programmes. Approval has already been obtained for upgrading a third of these offices by posting a professional Statistician to them.

The computerisation of District Statistical Offices was planned with a view to meeting the rapidly increasing demand for statistical data for socio-economic planning at the sub-national level. The district Statistical Offices could maintain data files from the Censuses of Population, Housing, Agriculture, Industry and from socio-economic surveys on which data is available so that they could process any tabulations required by the users. A strengthening of Statistical Offices by installing micro computers is a major component of the Population Information Project financed by JICA. The configuration decided on consists of

IBM PS 2 Model 80 1 MB Micro Computer

with 40 MB Hard Disk

Printer

Plotter where necessary for graphical presentation

Standard Statistical package such as D Base III, Lotus, SPSS, etc.

Already this Data Processing capability has been provided to 6 districts; namely Gampaha, Kandy, Matale, Kurunegala, Anuradhapura and Ratnapura.

The staff of these districts and several other districts to which the programme would be extended shortly have been provided with training in the use of this equipment and in general purpose and special statistical packages under the Project. Micro computers are expected to be installed in about 18 of the 25 districts by March 1990.

Statistical Offices in Ministries and Departments

As already described, Government Ministries and Departments which require professional statistical staff are required to have their cadres created under the DCS whose responsibility it is to provide them with centrally recruited trained staff in the required specialisation with the requisite experience. There are 60 Government Ministries and Departments including Agriculture, Government Audit, Customs, Education, Finance, Fisheries, Justice, Labour, Land, Planning, Police, Prisons, Registrar-

General, Tourism, Transport who are provided with statistical personnel. Thus there is a very wide variation in the subject specialisation needed to service these needs since the nature of work has also become highly specialised and technical in many of them. The officers posted to these Departments should be able to meet the needs of these organisations and they should have the necessary professional background to design statistical documentation and collect, extract, edit, process and supply the data required by the organisation. It is a challenge to recruit, maintain and supply personnel who would fit these requirements of narrow technical specialisations. Fortunately some of these institutions have reduced this burden by undertaking the training of the statistical staff with them, using both internal and international training opportunities available to these organisations.

Recently many of these organisations have been able to acquire personal computers for processing their information needs. Therefore it became necessary to provide training in data processing, specially in the use of statistical software packages. The scope of the Population Information Project financed by JICA was enlarged to meet this need and a number of officers attached to several Departments and Ministries have now been provided with training in statistical data processing under this Project.

The professional statistical cadres required by many of these institutions still remain small and therefore the current practice of recruitment and deployment is a cost effective organisational form. The high mobility of statistical and data processing professionals would make any efforts at recruitment and staffing of small numbers to lead to discontinuties in staff availability. In situations of high employment mobility the critical mass of trained staff required for the continued functioning of the system would be wasteful to create and maintain when arrangements of the type of deployment is available as an alternative. The current

method also allows persons acquiring specialised skills to be used at the Centre and advisory assistance from the Centre to be regularly passed on because of the close personal contact between the officers working at the Centre and at the Branch Offices.

Statistical Development Planning and Programming

National censuses of population and housing have been conducted in Sri Lanka for over a 100 years and the conduct of this decinnial census is scheduled for the year after the beginning of the decade. Accordingly the next in the series is scheduled for March 1991. A Census of Agriculture and a Census of Manufacturing Industries have also been conducted following the Census of Population and Housing with a gap of 1 to 2 years. The information collected for the Census of Population at the listing stage is used as the frame for conducting the Census of Agriculture and the Census of Manufacturing Industries. Thus as far as these major statistical undertakings are concerned their planning and scheduling is on a regular basis more or less fixed, the priorities are known and the statistical and budgetory authorities are in a position to programme the activities and resource inputs. Consultations with users is basically with the primary object of improving the quality of the data and for providing an opportunity for new topics to be canvassed, and special tabulations to be furnished.

In addition to these 3 Censuses, the Department also conducts a Census of Public Sector Employment once in 4 years, the last was conducted in 1985 and the next is due in 1990. Here too the Project is fairly well settled and the review at the planning stage is mainly concerned with the topics to be canvassed and tabulations to be provided, etc. There are also several other annual surveys where the budgetory inputs have been accepted, and coverage broadly determined. These on-going surveys include the annual surveys conducted under the national household survey capability programme, the annual survey of manufacturing industries, the annual survey of paddy

production, and the annual highland crop survey. Some of these surveys have been undertaken for relatively long periods of time, for instance the Survey of Paddy Production and Crop Estimation have been conducted for over 30 years and time series data on extents cultivated and harvested, estimated yields and production are available. Budgetory provision has been included for these survey programmes on a regular basis.

New survey programmes and ad hoc surveys emerge basically out of the user demand reflected through direct requests for statistical data on the subjects articulated at different fora. In many instances this demand for data remains unmet for a considerable time before survey programmes could be initiated with budgetory support. Apart from budgetory provision the time taken to process data from large surveys has also resulted in a slowing down of the process of expanding survey programmes. The high mobility of the data processing staff has been a major causative factor for raising the turn around time of these surveys. The relatively high remuneration available to trained and experienced personnel in data processing within and outside the country has caused large scale mobility which has generally affected statistical development programmes. The steps that have been taken to revise the salaries and the cadres and structure of the Data Processing Division should have a positive impact.

The location of the DCS in Planning and Plan Implementation Ministries in the past decade and a half and currently under the Ministry of Policy Planning and Implementation which are apex Ministries has made it possible the listing operations planned in the Population and Housing Census 1991 to construct a frame to cover these sectors as well, making it possible to design survey programmes.

The cost of undertaking well designed surveys of adequate sample size to release the type of disaggregated data required has been increasing over time. The budgetory restraints imposed because of the country's

internal situation has also had its impact on statistical development prospects, as it is only a very high priority item that can get included in the budget. These concerns have made it necessary to seek bilateral and multilateral support for some statistical development projects and DCS has been able to receive substantial support. for improving the infrastructure and also for conducting specific survey programmes.

Relationship with International Organisations

Sri Lanka in its present stage of development has been a receipient of bilateral and multilateral technical assistance in many of its development programmes during the past decades and statistical development is one such area. Direct interactions with bilaterial and multilateral agencies in the case of statistical programmes is much more recent. Initially in the late 1950s and until the early 1970s technical assistance available for statistics had been more in the form of technical assistance missions by experts to study and report on the on-going statistical programmes.

The relationship with international organisations and bilateral agencies could be looked at from 3 or 4 angles.

I Colloboration between Statistical Offices and Agencies of International Organisations and DCS

II Multilateral support for Statistical Programme development and execution

III Technical assistance from Bilateral Sources, such as JICA and USAID

IV Technical assistance for Human Resources Development.

Colloboration with International Statistical Offices

Since the 2nd World War the UN Family has taken responsibility for "international official statistics, collection, analysis and publication of data as well as the development of a co-ordinated international

Statistical System". The International Statistical Institute has also played a supportive role by engaging itself in the development and improvement of statistical methods and their applications and by its active involvement in educational promotional and moral aspects of statistics. Macura Milos (1985). ISI Contributed Papers. Bk 2, p 540.

The DCS has been alive to this functional role of the UN, and its relationship with the statistical organs of the UN System has been based on a mutual understanding of the need for a national statistical framework which would allow the statistics it produces to be subject to international standards and comparability criteria.

The DCS has had close links with the statistical agencies of the UN System, the UN Statistical Office, ESCAP, Statistics Division, Statistical Offices of the ILO, FAO, WHO, World Bank and ADB. DCS benefits through such colloboration in a number of ways, including information and advice on concepts and definitions, international standards, and census and survey taking methodologies. The National Statistical Office also receives advice and direction on specific technical matters of current interest. The publications on technical subjects which are made freely available by the international organisations and the consultations made at the time of revision of concepts and standards are other areas of co-operation.

The DCS on its part has adopted the International definitions and concepts developed by the organisations modifying them to meet national needs while allowing for international comparability. DCS provides access to the statistical data it collects to these international organisations and also regularly processes the questionnaires and requests for information by them. The consultations between these international statistical offices and the staff of the National Office has also been particularly useful to know the developments in the different technical

subject areas, and also to receive information and knowledge on the improvements and developments instituted by national statistical offices of other countries.

Multilateral Support

A number of International Organisations have extended support for the development of statistical activities in Sri Lanka and these included UNDP, UNFPA, UNICEF, IBRD and FAO.

UNDP Technical Assistance

DCS has received substantial project assistance from UNDP during the past decade for the development of statistical programmes. UNDP has financed the acquisition of data processing equipment, and vehicles for the 1980 series of censuses and technical assistance by way of experts and training of staff for the development of an integrated statistical system. The UNDP has provided support under 3 Projects.

Development of Integrated Statistical System 1980-1983
Development of Integrated Statistical System 1984-1987 Phase II
Assistance for the 1990 Series of Censuses 1988-1991

The assistance under the first project was for the acquisition of peripherals for the computer system, transport equipment, experts and staff training. This package was mainly for undertaking the 1980 series of censuses and for the utilization of the data to establish an integrated statistical system. The UNFPA provided complementary support for upgrading the computer capability and an IBM 4331 mainframe and an IBM System 34 mini computer for data entry were acquired. The computer configuration acquired through UNDP/UNFPA support is set out below.

System 4331

Central Processing Unit	4331-101	512 K bytes main memory Disket 1/0
Disk Drives	3310-A02 3310-B02	129 mega bytes 128 mega bytes

Tape Drives (2)	8809-A02/002	1,600 bpi 9 track
Line Printers	3203-005 3262-001	1,200 lines per minute 650 lines per minute
Card Reader	3505-B01	
Data Entry Keyboard (8)	3278-002	
Typewriter Keyboard (2)	3278-002	
System Console	3278-A02	
System/34		128 K bytes main memory
System Unit	5340-E23	27 mega bytes disk storage
Display Stations	5251 (2 sets) 5252 (Dual, 7 sets)	
Line Printers	3262-B01	650 lines per minute
Data Entry Stations (24)	5280	Commencing 1982

This equipment was installed towards the end of 1980 just prior to the taking of the Census of March 1981.

Project assistance from UNDP was continued under the Integrated Statistical System of Sri Lanka - Phase II Project which concluded in 1987. Under this Project, training both in-country and abroad of middle level staff, consultancies in household survey taking, sampling, national accounts, and data processing and consumables for data processing and cartography were supported. Further assistance from the UNDP has been negotiated for the 1990 Series of Censuses and technical assistance will be mainly to procure computer terminals, micro processors, printing equipment and consultancies in cartography, national accounts, agriculture census taking, and training of staff. The Project will remain operational till 1991.

IBRD/UNDP Assistance

DCS was also able to obtain support from IBRD/UNDP for strengthening the statistical system. The equipment component of the project assistance will be provided through credit on concessionary terms for the purchase of printing equipment, vehicles and computers. The training component which is provided as a grant is for postgraduate training of

professional staff abroad. Two short-term consultancies were also undertaken through the Project.

UNICEF has also provided assistance to DCS to strengthen its statistical information provision capability specifically relating to women and children. The assistance provided through the Child Survival and Development Project has been in the form of financial support for survey taking and acquisition of a vehicle and a micro computer for data analysis.

FAO has provided technical assistance by way of a Consultant in Agricultural statistics, 2 micro computers for data analysis and staff training through a Project undertaken in 1986-87. This Project has supported in depth analysis of the data collected through the agricultural census and annual surveys, development of an information system to obtain advanced estimates of paddy production, and development of a Project feasibility study for an information system for highland crops.

Bilateral Sources

The DCS also received assistance from bilateral sources for strengthening the statistical system and the support extended by JICA and USAID are noteworthy having contributed in a substantial measure to improving the statistical services.

USAID Technical Assistance

The USAID has supported the development of survey taking capability providing direct financial support for two surveys under the National Household Survey Capability Programme (NHSCP) and two more computers for processing the data. The first micro computers of the DCS which consisted of 2 IBM PC X 7s in 1986 and an IBM PC A7 in 1987 for the Demographic and Health Survey were received through this aid programme. Assistance was received for training Data Processing staff and the software developed by the US Bureau of Census and other Government Statistical Bureaus in the

U.S. were received free of charge. USAID has also supported the undertaking of several demographic and family health surveys with financial support for survey taking and assistance by way of consultancies for planning and executing these surveys. At present the DCS has the services of two Advisors from USAID for strengthening the National Accounts System, and for developing an Employment Survey Programme and staff training both in-country and abroad form part of the technical assistance.

Japan International Co-operation Agency

The DCS was able to establish a very fruitful technical collobo-ration programme with the Japan International Co-operation Agency (JICA) through a Population Information Project. The assistance which is in the form of an outright grant has been received to develop the data processing capability of DCS and to establish a Population Data Base covering the census and survey data, vital registration and migration statistics. Project assistance has been in the form of equipment, long term consultancies in data processing, statistics and demography and staff training both local and foreign.

The Project has 2 main components, the establishment of a Population Data Base at the headquarters of the DCS, and to improve most of the Data Processing capacity of the District Statistical Offices. Under this Project the capacity of the Data Processing Division of the DCS has been substantially strengthened to establish an on-line Population Data Base which can be extended to cover other time series data. In addition, the Technical Divisions have also been provided with micro-computers to access the Data Base. The main computer configuration installed for the Project comprises

Hardware

CPU IBM 9377 Model 90-8 MB Main Memory
Disk Drives (5 Units) Model 9335-855 MB each
Tape Drives (2) Model 3422-6250 bpi 9 track
Line Printer Model 4245-020-2000 lines per minute

System Console PS 2 Model/30
Display Terminals (4) Model 3191
Personal Computer (3) PS2 Model 60-1 MB
40 MB Hard disk
Data Entry Machines (16) IBM PS 2 Model 30-002

Software

Operating System	VSE/SP
	VM/SP
Database Software	SQI/DS and CSP
Telecommunication	ACF/VTAM

The Technical Divisions of the DCS have also been provided with an IBM PS 2 Model 60 IMB 40 MB Hard Disk and an IBM PS 2 Model 80 IMB 40 MB Hard Disk(12)Units and peripherals, under the Project to upgrade the data processing and analytical work undertaken by them and to access the Data Base when it becomes operational.

The District Statistical Offices are provided with personal computers under a phased programme, the configuration decided upon is

IBM PS 2 Model 80 1 MB with 40 MB Hard Disk

Printer and Plotter for graphics where necessary. Already 6 District Statistical Offices have been provided with computers and 18 of the 25 districts will be computerised before March 1990.

Developing the Central Data Processing capability and the establishment of the Statistical Data Base would substantially improve the services, DCS could provide its users. It is proposed to provide on-line access to the principal users such as the Planning and Plan Implementation Division within the Ministry of Policy Planning and Implementation and also to district Statistical Offices. The equipment installed would also reduce the time lag between survey taking and publication by production of camera ready outputs for printing. The survey taking capability will also be improved by computerising the frames from censuses and preparing of master sampling frames.

Technical Assistance for Staff Training

DCS was able to utilise technical assistance offered to the government from a number of countries for staff training. These opportunities have been provided by Australia, Federal Republic of Germany, Japan, the Netherlands, United Kingdom, etc. The training needs of the DCS is extensive as it is necessary to train staff in many specialisations having to provide trained professional staff to all government institutions requiring them. This high staff mobility due to relatively high wages in public corporations and private sector increased the need for training. The difficulties of retaining qualified teachers in the Universities to develop the statistical programme and offer training in the specialisation required by also increases the need for foreign training placements.

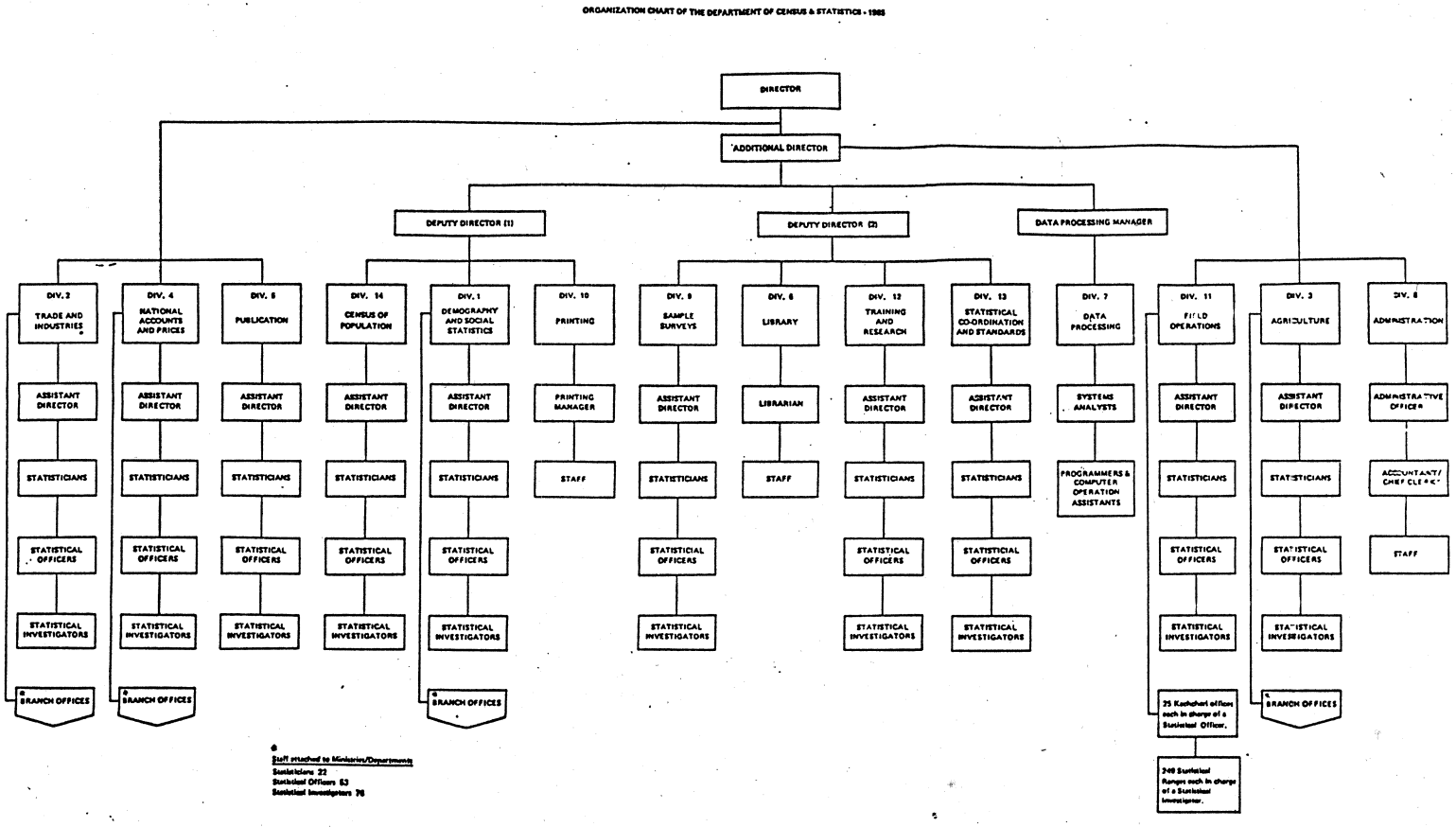
The staff attrition through internal brain drain and through external migration will make it necessary for the DCS to have a human resources development programme which will require continued support in the medium term. The extent and duration of such support would primarily depend on the improvement and diversification and development of the statistical training programmes offered by the National Universities.

In conclusion, DCS which is now more than 4 decades old has developed close contacts with a number of international statistical agencies both multilateral and bilateral from about the inception of the Department. The relationship with these statistical agencies have been mutually beneficial. DCS has accepted the policy that the data produced should allow for international comparability as advocated in international recommendations and has modified the classification systems and measurements to suit national needs which adhearing to this requirement. These international agencies thus have had the benefit of receiving statistical data which would require minimum adjustments and transformations. The opportunities offered by the agencies to expose the staff of the DCS in the different specialisations at the initial stages of work in statistical development projects have also helped in the smooth transformation to new systems.

Department of Census and Statistics
6 Albert Crescent,
Colombo 7, Sri Lanka

June 1989.

ORGANIZATION CHART OF THE DEPARTMENT OF CENSUS & STATISTICS



Operational Aspects of The National Statistical Office (Thailand)

a) Organization of Statistical Services in Thailand

Statistical Organization

Thailand has a partially centralised statistical system with the National Statistical Office (NSO) serving the pivotal role of coordination, control and promotion of statistical activities of the country. The NSO is responsible for conducting national censuses and surveys, although occasionally some surveys are carried out by other government departments with the approval of the NSO. One of the main functions of the NSO is the establishment and promotion of statistical standards, and it advises other statistical agencies on plans, methodology and other technical aspects of data collection and analysis. The NSO has the status of a department under the Office of the Prime Minister, and has close links with the National Economic and Social Development Board, which as the National Planning Agency, is major user of the statistics produced by the NSO.

The work of the NSO is organised under 6 technical divisions and an administrative support division. The technical divisions are I) STATISTICAL TECHNIQUES, II) POPULATION SURVEY III) ECONOMIC SURVEY, IV) FIELD OPERATIONS, V) DATA PROCESSING AND VI) STATISTICAL INFORMATION. Each division is divided into a number of function/regional units. The pattern of organization is shown in Appendix one. The senior staff working in the divisions are experienced and competent. The intermediate professional staff also have the requisite academic training; however, due to a large turnover of personnel, this category of staff is in need of continuous up-grading of professional skills. The NSO has a total staff of around 1,100, about one third of whom are employed in the provincial offices outside the capital city.

There is an inter-ministerial coordinating committee for statistical activities which meets when necessary to consider and make recommendations on the plans and programmes of data collection.

b) Planning of Statistical Activities and Determining of Priorites.

The National Statistical Office (NSO) has been carrying out nation-wide household surveys and censuses on a regular and continuing basis. In addition, special-purpose surveys are frequently carried out. It has been widely accepted that the NSO is the most important statistical unit of Thailand, and produces a good statistical data base from nearly every perspective.

Due to unexpected rapid economic growth in the country, the preparation of the National Development Plan is now increasingly difficult for planners. The socio-economic structure of the Thai population has experienced rapid change, corresponding directly to changes in economic development. More statistical information is needed in order to construct the Development Plan, which aims at ensuring coordinated socio-economic development programmes which will raise the living standard and the productive capability of the population. For the decade of the 90's the Government claims that the topic of income distribution will be most prominent.

The NSO is now entering a transitional stage of improvement and development of services under it's charge. The organization of it's infrastructure, and providing services in terms of statistical data, statistical techniques, and automatic data processing services are also being imporved.

The NSO plans to improve the quality and timeliness, as well as the coverage of statistical data to be produced in the 1990's. The following censuses and surveys are those the NSO plans to conduct in the 1990's.

Population and Social Statistics

1. The 1990 Population and Housing Census : Thailand has undertaken nationwide censuses of Population and Housing since 1909. The first five censuses were conducted by The Ministry of Interior. Since 1952, the NSO has been in charge of this census, and has scheduled to undertake the Population and Housing Census every 10 years, or in every year ended by a zero

as reccommened by the United Nations. The next census will be conducted in 1990 and the preparation work has been under development since 1986.

2. The Survey of Population Change of Thailand : The Survey of Population Change (SPC) has been undertaken in order to obtain reliable estimates of vital rates and the rate of population growth for the formulation of population policies, and to measure changes in population growth and its's components for the intercensal period. The survey results are also used to estimate the completeness of birth and death registrations. The next survey is sheduled for 1994-1996.

3. The Labour Force Survey (LFS) : The NSO has carried out the LFS since 1963. Begining in 1931, at least two rounds (one during the agricultural season and the other during the slack season) have been conducted every year. The survey was designed to collect data on size and characteristics of the labour force in the country at the regional level. In the 1990's the NSO plans to conduct the LFS in three rounds each year.

Since the need for statistical information of various users has increased dramatically during this period, and the LFS has rather fixed schedule that is to be conducted annually, additional questions will also be added in the LFS questionnaire on an ad-hoc basis according to the requests of the users.

4. Survey of Migration : The Survey of Migration has been undertaken by the NSO since 1974. Initially it covered only the area of Bangkok Metropolis Proper. Later, the coverage of the survey was extended to cover the vicinity of the Bangkok Metropolitan region. However, as emphasized in the National Development Plan (on the problem of too rapid growth of the BMA) more information on migration, especially at some provincial levels, is required in order to formulate plans to obstruct the flow of migrants to the BMA, as well as to stimulate such flows to other growth centres in the provinces. In the 1990's the NSO plans to produce migration data at provincial levels on a rotational schedule.

5. Survey of Highly Qualified Manpower : This survey was initially attempted as a joint project between the NSO and the Office of the National Economic and Social Development Board in 1974. Later, in 1976 it was taken over completely by the NSO, and has been conducted annually by mail questionnaires. The survey covers all university, teacher training and vocational school graduates for each academic year.

At present the most serious unemployment problem is the problem of unemployment among highly qualified manpower. Information for this particular group of people is urgently required in order to alleviate such problems. In the 1990's the NSO will attempt to conduct another survey under a similar title, but using a household survey approach. Planning to use a sampling frame from the 1990 Population and Housing Census, households with some highly qualified manpower will be selected and detailed information about demographic and socio-economic characteristics will be collected from those specific members of such households.

6. Report on Education Statistics : This survey is a joint project between the NSO and the Office of the Under-Secretary, Ministry of Education, which has been taken annually. It covers all educational institutions in Thailand. The questionnaires are sent to the schools under this coverage by mail. The data obtained from this survey are school enrollments, numbers of schools and teachers, and includes other related educational statistics.

7. Social Statistics Surveys : The NSO has collected social statistical data since 1968. Each year one or two survey projects have been conducted on a rotational basis within 5 year periods. Consequently, the social statistical data on various subjects can be obtained sequencially.

The survey projects are on these following topics :

- Child and Youth Survey
- Mass Media Survey
- The Survey of Health, Welfare and Use of Traditional Medicine
- Cultural Activity Participation and Time Used Survey

Economic Statistics

1. The 1993 Intercensal Survey of Agriculture. This survey was initially conducted in 1983 and repeated in 1988. The main objective of the survey is to collect data on the basic structure of agriculture, and it's changes over the period from 1988.

2. The 1990 Intercensal Survey of Marine Fisheries. This survey will be conducted on an interum basis 5 years after the 1985 census of Marine Fisheries to investigate and assess changes of Marine Fisheries that may have occured since the last census.

3. The 1995 Census of Marine Fisheries. This is the jointly organized survey of the NSO and the Fisheries Department which was also conducted in 1967 and 1985. The 1995 census will be the 3rd one, and will cover all fishery households and fishery employee's households in 24 provinces in the central region, and every province in the Southern part of the country. The census will provide data on economic structure and characteristics of marine fishery and coastal aquaculture as well as sampling frames for related surveys.

4. The Household Socio-Economic Survey : The NSO has conducted this survey since 1957 by repeating it every five years. As of late the requirement for such data has dramatically increased and the NSO therefore has adjusted the survey interval from every five years to every 2 years since 1988. The objective of this survey is to provide data on patterns and levels of household income and expenditure, and to construct or revise the CPI weighting patterns.

5. Annual Survey of Industry : This survey is an establishment survey which the NSO has been conducting annually since 1968, and covers establishments with 10 or more persons at work. The data obtained in this survey is used in industrial planning and promotion.

6. Annual Survey of Business Trade and Services : This is also an establishment survey which has been conducted since 1968 to provide data on the number and characteristics of each type of business establishment.

7. The Survey for the Industrial Production Index : This survey has been conducted annually since 1972. The quarterly and annual Industrial Production figures have been compiled according to their significance as indicators of changes of industrial production volume.

Apart from the census and survey projects which are directly administered by the NSO as mentioned before, The NSO is also responsible for providing other statistical services, such as consultation and guidance on statistical techniques, and also cooperates with other government agencies in conducting statistical surveys. In the 1990's the NSO will also continue those activities and expects to provide more statistical services to other agencies than in the previous decade.

It is also planned that in the 1990's the NSO will become more involved in analytical work. More analysis will be done using statistical data produced by the NSO, such as the Population and Housing Census, the Labour Force Survey and the Household Socio-Economic survey etc. In addition, basic socio and economic indicators will also be produced and constantly updated with the most current data available.

In terms of determining the survey priorities, The NSO will take more consideration of the requirements of various users, especially planners such as the NESDB. Those requirements will come through the Statistical Committee, seminars among various users, producers of particular topics, and requests which users send directly to the NSO.

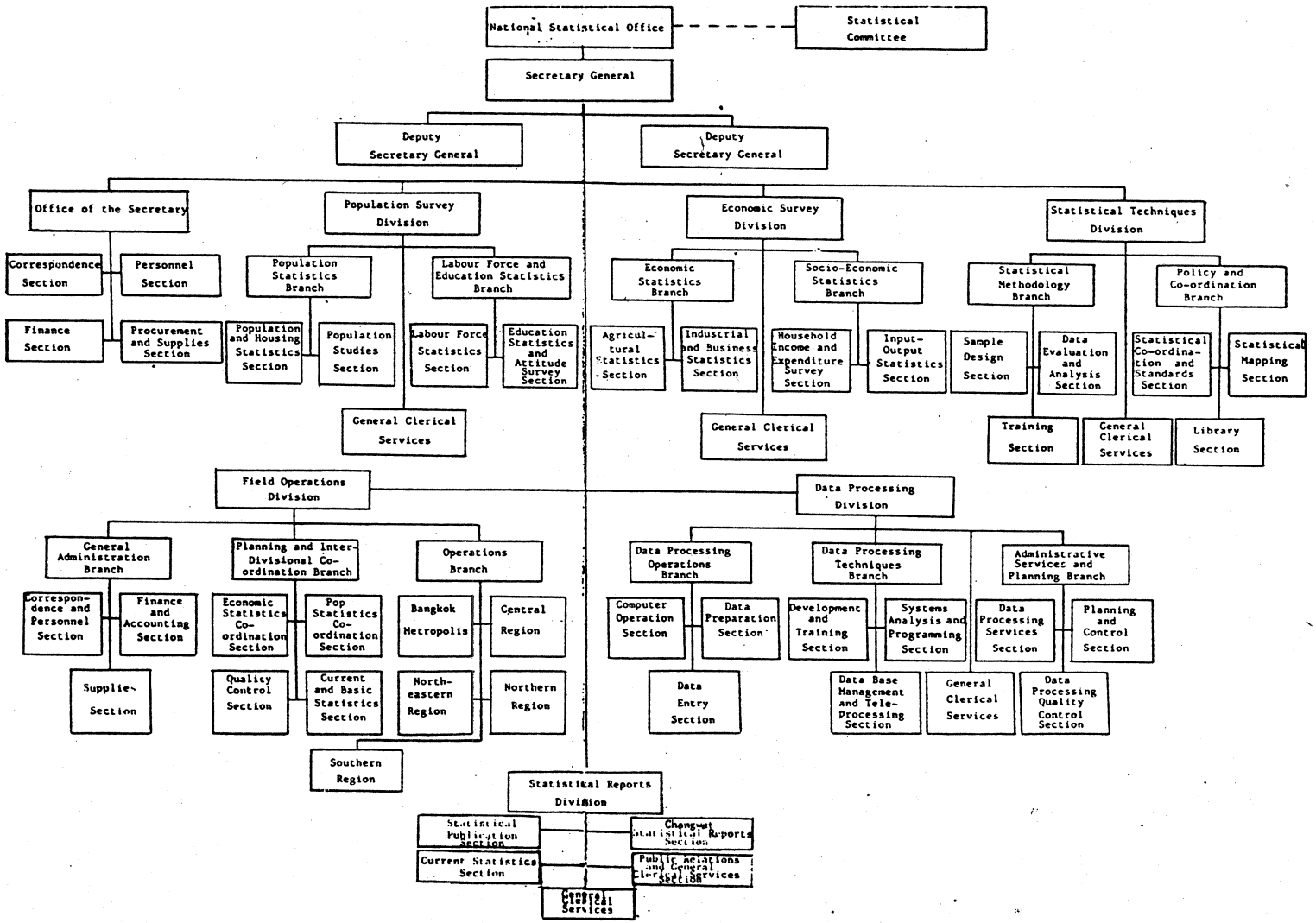
c) Relationships With International Organizations and Agencies Regarding Statistical Matters

The government of Thailand has long recognized the importance of international co-operation and harmony through constructive liasons with other countries and international organizations. This is evidenced in section five of the 1965 Statistical Act of Thailand, which mandates the NSO to participate in co-operative statistical co-ordination with foreign states and international groups. In accordance with this statutory requirement, the NSO interfaces with governmental and private departments of other countries and international organizations to provide statistical data as required. In addition, the NSO. is also in charge of co-ordinating ministries and agencies concerned with the U.N. International Comparison Program (which is now in Phase Five) and works closely with both ESCAP, UNICEF and the FAO to contribute to the development of better statistical reportage in the ESCAP region.

Also during the past years, The NSO has continued to organize several in service training courses in statistical methods and computer data processing for personnel of other governmental agencies and state enterprises. The number of trainees has increased considerably.

Apart from these in-service training activities, The NSO has also organized on-the-job training in specialized fields related to statistical activities for participants from other developing countries under the UN, ESCAP project.

Aware of the rapid technological advances expected in the 1990s, The NSO. of Thailand is determined to stay abreast of all trend and maintain it's policy of international co-operation in order to help all nations face the challenge of the future.


National Statistical Office
Statistical Committee
Secretary General
Deputy Secretary General
Deputy Secretary General
Office of the Secretary
Correspondence Section
Personnel Section
Finance Section
Procurement and Supplies Section
Population Survey Division
Population Statistics Branch
Population and Housing Statistics Section
Population Studies Section
Labour Force and Education Statistics Branch
Labour Force Statistics Section
Education Statistics and Attitude Survey Section
General Clerical Services
Economic Survey Division
Economic Statistics Branch
Agricultural Statistics Section
Industrial and Business Statistics Section
Socio-Economic Statistics Branch
Household Income and Expenditure Survey Section
Input-Output Statistics Section
General Clerical Services
Statistical Techniques Division
Statistical Methodology Branch
Sample Design Section
Data Evaluation and Analysis Section
Policy and Co-ordination Branch
Statistical Co-ordination and Standards Section
Statistical Mapping Section
Training Section
General Clerical Services
Library Section
Field Operations Division
General Administration Branch
Correspondence and Personnel Section
Finance and Accounting Section
Supplies Section
Planning and Inter-Divisional Co-ordination Branch
Economic Statistics Co-ordination Section
Pop Statistics Co-ordination Section
Quality Control Section
Current and Basic Statistics Section
Operations Branch
Bangkok Metropolis
Central Region
North-eastern Region
Northern Region
Southern Region
Data Processing Division
Data Processing Operations Branch
Computer Operation Section
Data Preparation Section
Data Entry Section
Data Processing Techniques Branch
Development and Training Section
Systems Analysis and Programming Section
Data Base Management and Tele-Processing Section
Administrative Services and Planning Branch
Data Processing Services Section
Planning and Control Section
General Clerical Services
Data Processing Quality Control Section
Statistical Reports Division
Statistical Publication Section
Current Statistics Section
Public relations and General Clerical Services Section
General Clerical Services

ESCAP/SIAP Seminar on Managing National Statistical Services in the 1990s

31 July - 4 August 1989, Bangkok

Item 4 - Operational Aspects of National Statistical Offices

VANUATU - Country Statement

Statistical organisation

Within the present administrative structure the Statistics Office forms part of the National Planning and Statistics Office (NPSO) which comes within the Office of the Prime Minister. The departmental head of the Statistics Office is the Principal Statistician. The work of the Statistics Office is governed by the Statistics Act (Joint Regulation No. 9 of 1974), which spells out clearly the functions and powers of the Principal Statistician.

As indicated on the attached organisation chart, the Statistics Office is fairly small. Besides the Principal Statistician (who is an expatriate), there are 12 local staff in the office. In addition, one UN Volunteer has been assigned to the Statistics Office to assist with agricultural statistics; another UNV working on national accounts recently completed her two-year contract, but should soon return to Vanuatu on a different UN contract. In addition to these staff, a further four people (one expatriate and three local) have been seconded to work full-time on the 1989 population census project.

The population of Vanuatu (about 150,000) is spread over some 70 islands, which are grouped administratively into 11 regions. There are only two urban areas, Port Vila (the capital) on Efate and Luganville on Espiritu Santo. There is no regional statistical service as such, but two of the Statistics Office staff are permanently outbased at the Santo Statistics Office, and assist the head office with data collection, for instance in connection with the CPI and the Quarterly Survey of Establishments.

Although the Vanuatu Statistics Office is small, it still has to provide the usual range of outputs that one would expect from a statistics office. Particular difficulties are experienced in ensuring adequate backstopping of staff, when they are absent on leave, sickness, or training overseas.

The government's central data processing section was originally located inside the Statistics Office, but with the increasing interest in computers throughout government, a separate Government Data Processing Department is in the process of being set up.

Planning Statistical Activities

Under the Statistics Act there is provision for a Statistics Committee, which is meant to meet at least once every quarter to determine the statistics programme and statistical priorities, and deal with related matters. In practice the Statistics Committee has rarely met. It is to be hoped that it may soon be possible to reactivate the Statistics Committee, which could provide the focus for planning future statistical activities, by helping to ensure that the statistics collected in Vanuatu suit the needs of current and potential users. While the formal Statistics Committee has not met in recent years, there are frequent contacts with other government departments in connection with day-to-day statistical activities.

A major problem is the shortage of ni-Vanuatu staff at a senior level to manage the office. The office has nearly always had to rely on expatriates to fill the Principal Statistician and other senior posts, and frequently there have been gaps when senior posts have remained unfilled for considerable lengths of time. New expatriate incumbents to the posts have then had to spend most of their time catching up on work that should have been done earlier, which has allowed little time for initiating new development work. Because of the rapid changeover in senior staff, the institutional memory is very short, which makes it essential that adequate documentation is maintained on all statistical processes and experiences.

While ideally the Statistics Committee (if it met) should set statistical priorities, in practice many of the developments which do take place result from external initiatives by funding agencies. Fortunately, most of these initiatives have coincided with the current interests of the Statistics Office itself. The Government recurrent budget is very constrained and savings have to be made in all departments. Whilst the Statistics Office budget has not been cut to the same extent as the budgets for other departments, it still allows little scope for any new statistical activities which would have recurrent cost implications. The support of donors must be sought for the purchase of any new equipment. Statistical projects funded by external agencies thus provide a vital source of funds, not only for the replenishment of equipment such as microcomputers but for helping to support ongoing statistical activities during the duration of the project and funding the overseas training of project staff. Examples of such projects in recent years (and their primary funding agencies) are the 1983 agricultural census (ODA), the national accounts project (ADB) and the 1989 population census (UNFPA).

While externally-funded projects provide a major injection of resources to the Statistics Office, these projects do have some drawbacks. Some funding agencies impose quite complex accounting procedures, which mean that a considerable amount of senior staff time must be devoted to keeping the project accounts in order. Whilst funding agencies are generous in their provision of new equipment, it is assumed that the national government will provide an adequate physical infrastructure in which the equipment can be housed. Regrettably, because of the severe budgetary constraints, this does not always happen.

Another problem relates to the short-term nature of most projects. Whilst a project is being implemented, significant resources are available for staff and equipment, but when the project ends the equipment is usually transferred to the government while the most valuable resource - the staff working on the project - has to be laid off unless it can be absorbed into the permanent staff of the Statistics Office.

This constant recruiting and laying off of staff for each project is not an efficient way to run a Statistics Office. Since nearly every major project involves a substantial amount of fieldwork, the Statistics Office is in the process of setting up a permanent survey unit, to provide continuity of employment and greater flexibility in responding to user needs. However difficulties are being experienced in obtaining external funding, and the Statistics Office is considering an approach to the United Nations for assistance in developing a longer-term programme within the framework of the NHSCP.

The projects mentioned above have played a major part, alongside the on-going work of the Statistics Office, in developing the capabilities of the local staff. Some of the middle-level staff have now had experience of working on a variety of projects, and have developed their skills in several areas. This is an important consideration in a small office, which cannot afford to have its staff too highly specialised; people must be able to do a range of statistical work as the situation requires.

The investment over recent years in the training of local staff is beginning to reap rewards. Although some promising middle-level staff have left the Statistics Office, several of those who remain appear well fitted for taking on further responsibilities within the Statistics Office. Indeed, the present Census Administrator is a ni-Vanuatu seconded from the Statistics Office; he will be completing his degree studies later this year, and it is hoped that soon afterwards he will be in a position to take over the management of the Statistics Office.

Relationship with International Organisations and Agencies

Because of its small size and relative lack of resources, Vanuatu is very dependent on help from the international community in promoting its economic and social development. Using the United Nations nomenclature, Vanuatu has "Least Developed Country" status. Assistance is regularly sought from the various multilateral and bilateral agencies for help in the statistical field.

External help is also sought and received in other areas of technical assistance and training. Support is being received at the present time from the British Government and from the United Nations through its UNV programme. Fairly frequent advisory missions are made by staff from the SPC demographic team in Noumea, by the ESCAP Regional Adviser on Population Censuses and Surveys from Bangkok, and by the FAO Adviser on Agricultural Statistics based in Apia; missions by representatives of other international agencies (ILO, ADB, etc.) are made as required.

There is a steady stream of consultants visiting the Statistics Office who require attention. In many cases the Statistics Office has specifically requested a visit by a consultant, since he or she is working in an area of current interest to the office, and these visits are most welcome. In some cases, however, a consultant arrives unexpectedly, and senior staff time is dissipated in attending to their needs, to the detriment of the main work of the office. If visits by consultants are to be productive, they must be cleared in advance by the Statistics Office, so that adequate preparations can be made and staff assigned to deal with the visitors. If such visits are not properly planned, neither the Statistics Office nor the consultant will derive full benefit from the visit.

It is hoped that close contact can be maintained with nearby statistical offices, particularly the Australian Bureau of Statistics (ABS) and the New Zealand Department of Statistics. In terms of developing the work programme of the Vanuatu Statistics Office, the provision of technical assistance by these two countries would continue to benefit Vanuatu. Such contacts could also prove beneficial to the reciprocating statistical offices, in providing their staff with fresh challenges in a different environment and possibly giving them new insights into how to solve some of their own statistical problems.

One particular area where the Vanuatu Statistics Office has recently been receiving valuable technical assistance from the ABS is in developing statistical classifications. The ABS has been assisting the office in moving over to the new SITC 3 classification for trade statistics and in making use of the new ISCO 1988 classification, adapted slightly to meet Vanuatu's special needs, for coding occupations on the 1989 Census; it appears, incidentally, that Vanuatu may be the first country in the world to be using ISCO 1988 for analysing occupations on a population census.

One important aspect of the relationship with international organisations is the need to respond to the steady stream of questionnaires received in the Statistics Office, requesting statistics on all manner of topics. There are several aspects to this matter.

The questionnaires from international organisations often stipulate deadlines which are unrealistic. While a gap of, say, a month between despatch and receipt may seem reasonable to the person sending out the questionnaire, it is probable that the questionnaire will take at least two weeks to reach Vanuatu and, if sent through the official channels, several more days or weeks before it arrives in the Statistics Office. Consequently, requests for information sometimes arrive in the Statistics Office after the deadline for return has passed. In a very small office, where experienced staff are in short supply, it may be impossible to divert staff immediately to this new task, thus causing more delay. Where the questionnaire requires the collection of information from another department, there is an inevitable delay in securing a response; initial attempts to secure a written response are almost certain to be unsuccessful, and a senior staff member of the Statistics Office will need to visit the department concerned.

Although most of the international questionnaires are well designed (probably because they have been running for many years) some questionnaires would benefit from the advice of someone skilled in form design. It is difficult for the Statistics Office to advise another government department how to respond to particular questions on the form, when the exact meaning of the questions is unclear even to the Statistics Office.

Education and training is an area where Vanuatu benefits appreciably from the services provided by multilateral and bilateral organisations and agencies. For instance, in terms of longer term training, Australia through its AIDAB is funding the degree studies programme for the Principal Statistician-elect, and two members of staff have successfully completed the one-year diploma course in national accounts at the U.S. Bureau of Economic Analysis.

Useful shorter courses are held at a regional or sub-regional level, or even sometimes in-country. For instance, in the area of microcomputing (a subject of particular interest to the Vanuatu Statistics Office) many of the staff attended some or all of a recent SIAP in-country course on software packages for census and survey processing, while three junior members of staff who have so far had little exposure to microcomputers will shortly be attending a three-week SPC introductory course on microcomputers, to be held in Fiji with financial support from ADB.

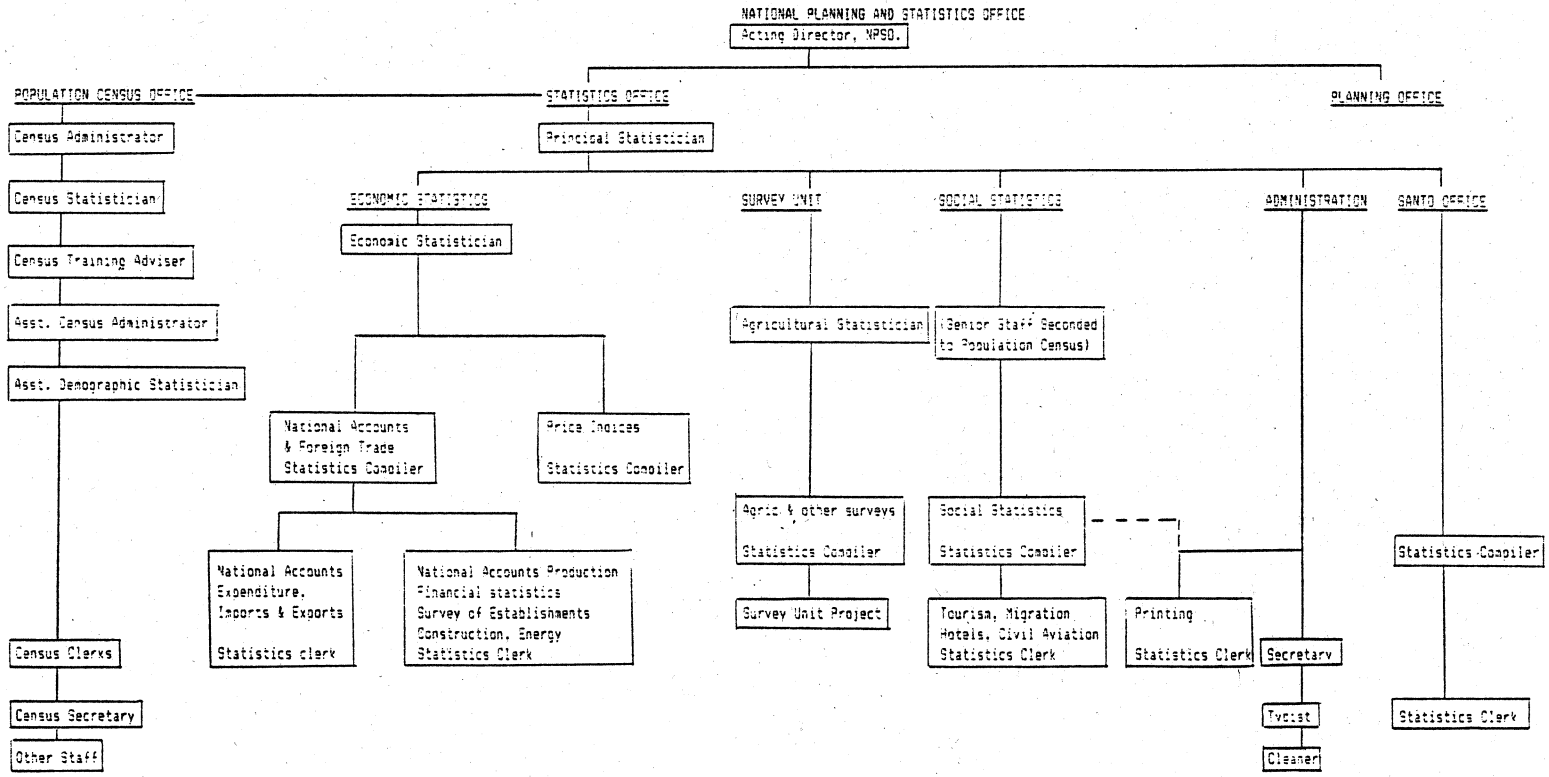
Short attachments to other statistics offices are another way of further developing the knowledge and skills of statistical staff. One member of staff has already benefitted from a short attachment visit to a State office of the ABS, and, if funding permits, an offer from New Zealand to provide a short training programme for a senior staff member on aspects of census and survey management is likely to be accepted.

Perhaps the best way to develop the skills of local staff for the specific tasks required in the Vanuatu Statistics Office is by on-the-job training within the office itself. So far very little formal training has been given, but it is hoped that regular weekly training sessions will soon commence, with the training being shared between senior staff. Visiting consultants can also help out by giving short training classes in their fields of expertise.

The building up of a national capability to collect, process and disseminate statistics on Vanuatu in a timely and yet cost-effective manner cannot take place overnight. It requires an adequate pool of motivated local staff, who over the years will have attended and learned from a variety of educational and training courses, and who will also have had a rich on-the-job training experience in a number of different areas. There are some signs that the Statistics Office is beginning to build up just such a corps of staff. Provided they can be retained, and the resources available to the Statistics Office are not diminished, there are signs that the managing of the Vanuatu Statistics Office in the 1990s will be a rewarding experience.

Peter Digby, Principal Statistician
Statistics Office, Port Vila, Vanuatu

STATISTICS OFFICE ORGANISATION CHART
as at 24 April 1989



ECONOMIC AND SOCIAL COMMISSION FOR ASIA AND THE PACIFIC

ESCAP/SIAP Seminar on Managing National Statistical Services in the 1990s
31 July-4 August 1989
Bangkok

DRAFT REPORT

I. ORGANIZATION OF THE SEMINAR

1. The ESCAP/SIAP Seminar on Managing National Statistical Services in the 1990s, organized jointly by the secretariat of the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) and the Statistical Institute for Asia and the Pacific (SIAP), was held at Bangkok from 31 July to 4 August 1989. Financial support was provided by the United Nations Development Programme (UNDP) through its programme support to SIAP.

Attendance

2. The Seminar was attended by 37 participants from 27 members and associate members of the Commission: Afghanistan, Australia, Bangladesh, China, Cook Islands, Fiji, France, Hong Kong, India, Indonesia, Islamic Republic of Iran, Japan, Lao People's Democratic Republic, Malaysia, Mongolia, Nepal, New Zealand, Pakistan, Philippines, Republic of Korea, Samoa, Singapore, Sri Lanka, Thailand, Tonga, Union of Soviet Socialist Republics, Vanuatu and Viet Nam. Representatives of the Statistical Institute for Asia and the Pacific, United Nations Children's Fund, (UNICEF), Food and Agriculture Organization of the United Nations (FAO), World Bank (IBRD) and the Munich Centre for Advanced Training in Applied Statistics for Developing Countries were also participated.

Opening address

3. In his inaugural statement, the Executive Secretary of ESCAP welcomed the participants to the Seminar and noted that the presence of such a large number of senior statisticians, indicated the interest their Governments took in the statistical activities of ESCAP as well as in the management of national statistical services in the coming decade. He thanked UNDP for providing financial support for the Seminar through SIAP, which along with the Statistics

Division of ESCAP had contributed significantly to statistical development in the region. In that connection the Executive Secretary recalled that ESCAP had convened two earlier seminars on statistical organization designed to help member countries create adequate infrastructure for a functional and forward-looking statistical agency.

4. While many of the subjects discussed previously - statistical legislation, staff development, relationships between data suppliers, producers and users, co-ordination of statistical activities - were still topical, newer and equally fundamental issues had emerged. Those included the growing demand for problem-oriented and analytical information for planning and decision-making purposes, especially at the micro-level; the impact of information technology, especially on data dissemination; resource constraints on national statistical agencies; and heightened public awareness of privacy and response burden considerations.

5. Against that background, the Executive Secretary noted that the Seminar provided the opportunity to review experiences and suggest guidelines which would help national statistical offices prepare to meet those emerging challenges of the 1990s. He suggested that the adoption of modern computer technology, a greater versatility on the part of government statisticians, and more attention to administrative records could be important elements in the response of statistical agencies.

6. The Executive Secretary also indicated that with the significant improvement in the statistical capabilities of many developing countries of the region, the secretariat would be increasingly soliciting from them substantive documents for technical meetings outlining innovative ideas and national approaches to statistical problems. The Seminar had witnessed a start in that direction through the preparation by several national statistical offices of informative discussion papers. These promised to be of great value to other

countries trying to improve their statistical services, and might also form the basis for regional approaches to issues. The Executive Secretary was confident that national statistical offices would respond positively to the secretariat's request, as well as to the challenge of confronting the profound issues to be discussed at the Seminar.

Election of officers

7. The Seminar elected Mr. W. McLennan (Australia) as Chairman, Ms. M.O. de la Cruz (Philippines) as Vice-Chairman, and Mr. R.B.M. Korale (Sri Lanka) as Rapporteur.

Documentation

8. A list of the documents presented to the Seminar is given in the annex to the report.

II. OPERATIONAL ASPECTS OF NATIONAL STATISTICAL SERVICES

9. The Seminar considered the topic on the basis of country papers, listed in the annex.

10. The seminar agreed that an important issue was to improve the sensitivity of national statistical systems to the needs of users. Any formal or informal arrangementsa for close contact and regular dialogue between the statisticians and the principal data users would provide for a better appreciation of the environments in which planners and policy-makers used statistics, to ensure that data produced were relevant and contributed to the realization of national socio-economic goals.

11. In most countries, a mechanism for achieving that was through the functioning of statistical advisory bodies or councils at the national level and sometimes also subnational levels. Representation was usually at a very senior level, which included in some countries, the Minister responsible for statistics as chairperson. Other representatives were drawn variously from key government ministries, universities, producer organizations, trades unions and other user groups.

12. In those countries where they existed, the functions and powers of the advisory bodies varied considerably. Their main roles were to provide authority and support for statistical activities, to provide guidance in assigning priorities and to co-ordinate national statistical programmes. In some countries, they had been established only recently and as a result exercised untested or limited powers; in others they were well-established and asserted a strong influence over the statistical system. In almost all cases, the role of such bodies was advisory, although one country reported that its co-ordinating board had responsibility for the statistical budget. Many countries reported that in addition to the statistical board or advisory council, ad hoc technical

committees had been established to provide specialized guidance on such matters as design, statistical standards and classification.

13. While they helped in fostering a better understanding of the needs of users, the statistical performance of the advisory bodies did not always meet expectations and could be resource-consuming for the national statistical agency to service. One country noted a tendency for the seniority level of participants to fall over time; another reported that the large numbers sometimes present at meetings, representing a variety of vested interests, militated against consensus and provided little guidance for setting statistical priorities; another reported that its statistical committee had important legal powers, but in practice it rarely met. Several countries felt that the formal committee structure was in itself inadequate as a basis for setting priorities and needed to be supported by informal contacts, for example with users in the private sector. Market research could also prove useful, although the market place should not be the sole factor in determining priorities.

14. The importance of ensuring that consistent and acceptable standards were set throughout national statistical systems was highlighted. Some countries reported that statistics were sometimes collected by different agencies, resulting in the release of different estimates of the same subject-matter. Some progress towards standardization had been achieved. The establishment of statistical data bases and the widespread use of computers in statistics had helped, for example, by encouraging the adoption of national geographic coding systems, and in some countries, by the wide use of micro-based system for occupation coding. Some problems still persisted especially in defining concepts such as the poverty line.

15. The Seminar saw as a central theme the need to develop strategic plans so that statistics offices could anticipate changes in demand and hence move in new directions. It was not always easy to respond to the demands of planners,

especially since national statistical practices were steeped in tradition and it took time to prepare new or revise existing international manuals. Statistical offices should become more accountable for their outputs which should be more closely related to wider government objectives. They might need, for example, to be able to provide statistics on the less-regulated economy, or on social inequalities, on the impact of development on the environment. Some countries felt that the future might entail a more market-oriented approach to statistics in which partial cost recovery would play a significant part.

16. The Seminar identified a number of other new issues arising in some countries of the region that could shape the future operation of statistical services. Those included a political commitment to subnational development, which ensured that the demand for more highly disaggregated socio-economic data would continue to grow. The treatment of statistics as public goods, or as investment goods to which more rigorous cost-benefit analysis could be applied, was mentioned; move broadly, information was coming to be treated as a national resource. A heightened concern was detected among users for more timely and accurate statistics. It was felt that censuses and surveys would remain important, but there was a belief that other sources would need to be tapped, especially to provide short-term indicators.

17. All those developments would increase the demand for highly professional staff and add emphasis to the importance of training. A considerable change in attitude might be called for in statistical offices. One country reported that adopting a strategic management approach has had a significant impact across the statistical organization, especially by focussing the attention of senior staff on the importance of meeting very specific corporate objectives.

III. THE INFRASTRUCTURE FOR STATISTICAL SERVICES

18. The Seminar considered documents STAT/SMNSS/3, /5 and /9 and conference room papers CRP.5 and CRP.8.

19. The Seminar noted that the countries had enabling legislation to conduct statistical surveys and data collection. Several countries mentioned specific legislation establishing the central statistical organization as an entity. Other legislation leading to statistics derived from administrative procedures was also cited, such as legislation on regulatory and enforcement functions of specific government bodies, e.g. births and deaths registrations, road vehicle registrations, and business registrations.

20. In all cases cited, the enabling legislation embodied rights and obligations of statisticians and respondents. The Seminar observed that the developed countries had more often prosecuted persistent non-respondents in establishment/enterprise surveys. Those countries noted that that action demonstrated to other non-respondents that the statistics agency would firmly enforce the law if pushed to the limit by persistent offenders. Nevertheless, they emphasized that proper record keeping and adherence to strict procedures were necessary to ensure success in prosecution. Although the initial investment in time and effort by management was substantial, they believed the long-run benefits worthwhile.

21. On the other hand, most developing countries emphasized that educating and informing industrial survey non-respondents was more beneficial and practical, especially where courts were overburdened and penalties very low. In any case, it was stated that the overall rate of non-response in those countries did not warrant the relatively heavy investment of time and effort in prosecution in a situation of already scarce statistical personnel. The Seminar

recognized, however, that the reluctance to respond among both businesses and households was likely to grow.

22. The Seminar noted that prosecutions of individuals for non-response from household surveys were complex and fraught with legal difficulties, such as the interpretation of wilful non-compliance on withholding information; the situation was more acute where special local conditions or cultural practices existed. The Seminar also noted that unwilling compliance with statistical enquiries often resulted in the collection of inaccurate data.

23. In discussing the closely related issues of privacy and confidentiality, the Seminar observed that the developed countries with their generally urban settings were more concerned with how to keep data confidential while at the same time allowing meaningful statistics to be compiled and published. With the pervasive use of modern computer technology, particular care had to be taken not to divulge unit record files. The Seminar discussed publication techniques in instances where only one or a few important respondent enterprises were involved. The issue of physical safety and confidentiality of large numbers of statistical returns was also emphasized.

24. The Seminar agreed on the need to balance the right to privacy and confidentiality with the right of society to be informed about itself. Confidentiality was cited as particularly important in the small Pacific island nations. The Seminar took note, however of a number of instances in developing countries where interviews were undertaken in a less than confidential setting, especially in more traditional settlements where curious neighbours also attended the interview and moreover, sometimes contradicted respondents' replies. Those circumstances could lead to distortions of the truth and difficulties in deciding which responses should be accepted.

25. A few national statistical offices attempted to improve cost-effectiveness and reduce respondent burden by conducting surveys jointly with other government agencies. But that approach could lead to difficult confidentiality questions concerning the accessibility of the data. Instead of a legal approach it was suggested that technical solutions might need to be explored.

26. The Seminar took note of many approaches and practices designed to foster producer/supplier/user relationships. Some countries conducted publicity campaigns on the usefulness of surveys and statistical data to the community and on the community's obligations to participate. It was agreed that statisticians needed to think ahead and anticipate what attitudes respondents had to statistical surveys. Also, since statistics and the use of microcomputers were now being taught in schools, it was expected that both suppliers and users of data would be more knowledgeable and questioning about the activities of statistical agencies; statisticians would need to decide quickly how to meet that challenge.

27. Statisticians also needed to contend with the twin user demands of a greater volume of statistics and better timeliness. It was suggested that econometric/statistical techniques could be used to meet those demands, at least in part. It was noted that often, especially in developing countries, the users might not be able to state clearly their needs. Although the task of the statisticians would become more complex in those circumstances, it would still be worthwhile for them to invest the time and effort to "think for the users" and offer them information that was useful and relevant in the context of the socio-economic goals of the country. In that context, the national statistical office needed to develop the necessary approach to set priorities within its work programme to achieve the maximum impact, so that the results would further sustain the relevance and usefulness of the statistical profession.

28. In order to foster relationships between producers, suppliers and users, it was generally felt that professional public relations expertise would have to be employed, either through hiring staff or by sending appropriate officers for public relations training.

29. The more senior subject matter statisticians needed to be exposed and trained in various skills, especially management expertise. They also needed to be conversant with the whole range of products and services of their organization, so that they would be better able to interact with users and suppliers who were increasingly more informed and demanding. That was particularly important with the rapid development and application of information technology and personal computers, since users were becoming more computer literate. Given the short timescales involved in computerization, statisticians had to acquire the necessary technological knowhow very rapidly in order to conduct meaningful discussions with sophisticated users and suppliers.

IV. DISSEMINATION AND MARKETING OF STATISTICAL PRODUCTS

30. The Seminar considered documents STAT/SMNSS/6 and /7, and conference room papers CRP.1, CRP.2, CRP.6, CRP.7, CRP.10 and CRP.12 (see annex).

31. The Seminar agreed that the dissemination of statistical information was an essential part of the role of government statistical agencies. For all countries represented, printed matter in the form of books, booklets, pamphlets, papers and computer printout remained the principal medium for providing statistical information to users. Increasingly, government statistical agencies were supplying information on electronic media such as tapes, diskettes and CD-ROM. Some were also providing data on microfiche.

32. The Seminar noted that statistical products and information services were supplied both directly, by central statistical agencies, and indirectly through intermediate channels. Most agencies maintain information centres which provided library, photocopying, and other information services, as well as distributing publications. A number of countries had set up special information service units tailored to meeting the information needs of overseas clients.

33. Most statistical bureaus were directly involved in some aspects of printing, publishing and distributing printed material by operating printing or desk top publishing facilities, or in maintaining delivery and subscription systems. In some developing countries, computer based publishing or photocopying equipment had recently come to provide a more cost effective alternative to traditional methods of reproduction.

34. It was noted that intermediate means of delivering information included radio, the press, public libraries, educational institutions, information brokers, public and private sector publishers and bookshops. In some instances overseas academic and research institutions had been used to provide statistical data

bases and information services. Telecommunications networks had been utilized inter alia for electronic mail and telephone enquiry services.

35. In each country, the mix of print and non-print distribution media, and the mix of delivery mechanisms tended to reflect, inter alia, the nature of the user community, the development of communications and the resources and expertise available to the statistical agency. Those countries with a developed market for information, and sophisticated telecommunications generally provided a higher proportion of their data in machine-readable form, and made greater use of telecommunications networks. Those countries had also tended to develop their information centres into customer oriented "client service" bureaus. One area where less statistically developed countries had made use of magnetic media was in the supply of data to international agencies and other overseas clients.

36. The lack of adequate telecommunications was cited by several countries as an obstacle to electronic data dissemination. One country referred to the use of satellite technology as a possible solution to the problem.

37. There was general agreement on the importance of making current and potential users more aware of the availability of statistical information services. For some countries an important goal of promoting statistical services was seen to be increasing community and government awareness of the value and relevance of statistics. In the more developed countries, the emphasis was on raising the profile of official statistics in a competitive information market.

38. Measures used included newspaper and electronic media advertising, the publication of statistical calendars to inform users of the expected publication dates for key statistics, and the promotion and encouragement of statistical education in schools. Several developing countries emphasized the importance of simply making statistical information readily available as mechanism for

promoting statistical awareness. Some participants felt that for developing countries the cost of extensive commercial promotion would probably outweigh any benefits, and that scarce resources would be more effectively devoted to meeting national priorities such as the provision of small area statistics required for development planning.

39. The Seminar generally agreed that it was desirable for statistical information to be "packaged" or presented in a manner which was both attractive and informative. Measures suggested to improve those features in statistical publications included the selective use of more professional graphic design and editorial techniques. Several countries had reviewed the presentation of their publications and adopted distinctive cover styles, colours or "logos". The selective use of graphics to highlight significant trends was suggested. The inclusion of explanatory and interpretive text was also considered desirable. It was suggested that such text should be prepared in a style of language suitable to the target audience. Publications aimed at the general reader should be free of technical jargon. One participant suggested that comparative figures and measures of change were generally more relevant than measures of absolute value. Another suggested that statistics should illuminate matters of social concern.

40. It was noted that the extent to which countries, especially developing nations, could take steps to improve the presentation of statistics was dependent on resources, including the availability of suitably qualified staff. Priorities dictated that resources could not be readily expended on employing graphic designers or editorial personnel, especially on a full-time in-house basis.

41. The Seminar noted that statistical staff with a suitable understanding of wider social and economic issues who would be able to prepare adequate interpretive comment were not often readily available. One possible solution

was the utilization of skilled personnel from economic or planning agencies on a co-operative basis.

42. As regards the pricing of statistical products, the Seminar agreed that a fundamental role of government statistical agencies was the provision of public good statistics as a service to the community, and that public access to such information should not be unduly constrained by pricing or other restrictive measures. Several participants stressed the importance of making official statistics readily available to government agencies, to public libraries, to educational institutions and to the general public through the news media.

43. Concern was expressed that in countries where there was an undeveloped awareness of the value of statistical information and its usefulness, charging would discourage interest, and be counterproductive. At least one country observed that that had been the result of introducing quite nominal charges for publications.

44. Several participants cited administrative and financial obstacles to charging, including the inability of agencies to retain revenue earned, obligations to provide publications free of charge to other government organizations and arrangements with government printers and bookshops which effectively removed control of charging from the statistical agency. The Seminar also noted that in many countries there was only a limited market for publications, and the absence of a sophisticated private sector information market meant there was little scope for earning revenue by charging for other non-print based statistical services.

45. Some concern was expressed that charging could compromise public confidence in the independence and authoritative nature of official statistics. One participant also feared that charging for statistical services could inhibit the international exchange of statistical information.

46. Despite those reservations, the Seminar recognized that setting a non-zero price for statistical products did have benefits. Nominal prices, whilst not restricting access to information, did help prevent wasteful and frivolous requests and served as a reminder to users of the costs of producing data. Charging could help defray some printing and other dissemination costs. The user reaction to charging was found by several agencies to provide an indicator of the relative value placed on statistical products. That helped in assessing the relevance of a number of statistical outputs. In countries with more developed private sector information markets, charging for client-specific services was seen as a means of establishing a more appropriate balance between the "users" and the "taxpayer" in the funding of statistical services.

47. Several participants noted that their governments were requiring revenue to be earned from the provision of statistical services, had introduced charging for services supplied from one agency of government to another, or required information about the specific cost of public sector outputs.

48. The Seminar agreed on the need for continuous and effective dialogue with users to ensure the continuing relevance of statistical products. It noted the value of market research techniques in establishing users attitudes and needs. It also noted that clients requirements were not necessarily restricted to specific subject-matter areas, and that the subject-matter organization of statistical agencies could make it difficult to respond effectively.

V. IMPACT OF TECHNOLOGY ON STATISTICAL SERVICES

49. The Seminar considered the impact of technology on statistical services on the basis of papers STAT/SMNSS/4 and /8, and conference room papers CRP.3, CRP.9 and CRP.11 (see the annex). Recent technological developments, particularly in the form of microcomputers and software packages, had had a beneficial effect on the processing of statistical information, from data collection right through to analysis and dissemination of data; but they had also brought certain challenges.

50. In the area of data collection and capture, countries reported a variety of new approaches, based on recent developments in computer technology: for instance, the establishment of a network of microcomputers in regional or district centres, to assist in the control of field operations or to facilitate data entry and partial processing before passing the data to the central office; the use of computer-aided telephone interviewing (CATI) to improve response in surveys; and the experimental use of laptop and hand-held computers for collecting data directly from respondents. Some countries also reported on the use of optical mark readers (OMR) and optical character recognition (OCR) to speed up the process and improve the quality of data capture, while computer-assisted coding (CAC) was being used with success by a number of countries.

51. Technological developments were having a dramatic effect on statistical data processing. Very large volumes of data could now be handled with ease, and modern software packages were providing the statisticians with a much greater analytical capability. Whilst the smaller countries were able to do all their statistical processing using microcomputers, others were using both mainframes and microcomputers, with appropriate linkages between them to enable, for example, the downloading of data for further analysis. Several countries had established computerized data bases which provided much greater accessibility to and improved the consistency of data.

52. The Seminar noted that one direct result of the increased availability of low-cost microcomputers was that most statistical offices now had their own computing facilities. Whereas in the past some offices had often had to seek the assistance of a central data processing centre, or even had to send their raw data overseas, all data processing now took place in-country within the statistics office itself, with consequent benefits in timeliness.

53. Countries reported improvements in the quality and timeliness of their printed publications, arising principally from the use of better software, particularly graphics and desk-top publishing, and the use of laser printers. Those developments had given statistical offices much greater control over the production process, and meant that they no longer had to rely on government printers or other external printing houses. While the traditional printed publications continued to be the main form of output, the larger and more developed offices reported increasing use of other forms of output to meet the needs of users, including magnetic tapes, diskettes, CD-ROM, and electronic mail.

54. The recent dramatic advances in computer technology were creating new challenges for the managers of national statistical offices. Most traditional statistical operations had been fairly labour-intensive, but the introduction of modern computer technology provided the opportunity to automate many of the more tedious tasks and thus reduce the number of lower grade staff in the statistics office. Whilst several countries welcomed that change, which would release staff to do more professional tasks, one country expressed concern about the possible reduction in employment opportunities for lower level staff.

55. Although the introduction of new technology to statistics offices offered exciting possibilities for the future, there were several aspects which gave rise for concern. The whole field of computer technology was relatively new, and managers of statistical offices therefore had only a limited past

experience on which to draw when trying to face new challenges. Training was a vital requirement, to enable staff to upgrade their skills and adapt to the demands of the changing technology. In addition the pace of advance in both hardware and software was so rapid that it was difficult for data processing specialists, let alone managers, to keep abreast of developments. The increasing power and flexibility of computer systems provided tremendous opportunities for the statistician, but data management was becoming an increasingly complex job due to the proliferation of languages and operating systems. The tasks of managing staff and adapting to the changing environment were made much easier where offices ensured a high degree of standardization of hardware and software.

56. The impact of changing technology could be seen most clearly in the use of microcomputers. One of the microcomputer's particular strengths - the user's ease of access - was also a weakness, in that it was difficult to ensure the security of data and prevent access. The Pacific island and other smaller countries, whilst welcoming the advent of microcomputers, noted the problems arising with regard to maintenance of the equipment, and the effect of unstable power supplies maintenance costs and the relatively short lifetime of microcomputers were viewed as disadvantages. Some countries, though, considered the lifetime aspect beneficial as it would allow them to replace old equipment with current technology.

57. The Seminar also noted the recent problems caused by computer viruses, especially in the microcomputer environment. Virus programs spread unnoticed form computer to computer, later unexpectedly destroying files. While methods were available to prevent, detect and cure the virus infection, the Seminar noted that the best protection was to maintain strict control over all new computer programs.

VI. HUMAN RESOURCES DEVELOPMENT FOR STATISTICAL SERVICES

58. The Seminar had before it secretariat paper STAT/SMNSS/2, and conference room paper CRP.4 prepared by the Director of SIAP.

59. The Seminar noted that human resources development was a very important aspect of managing national statistical services. Several participants reported on various aspects of statistical training and other human resources development activities for their staff, including in-service and on-the-job training, distance learning, training units of national statistical agencies, national institutes with various training programmes in statistics and microcomputing, and the training opportunities utilized at institutes both within the region (SIAP, ISEC and to a lesser extent SPC) and outside it. In a few instances, commercial training facilities were also utilized. The Seminar took note of the serious staff retention problems encountered in many countries, especially for data processing personnel, and of the often limited success of the countermeasures adopted.

60. Particular training needs identified included those for statistical personnel working in sectoral ministries, for whom training facilities were often not available, and for middle- and senior-level personnel in statistical agencies. In terms of subject matter, training in project management, communications development, report writing, personnel management, national accounts and price statistics were among the areas requiring special attention. Other issues that national statistical offices needed to address in the coming years included the allocation of resources between "blanket" and selective training, and the types of staff that would need to be recruited.

61. The Seminar noted some however aspects of information technology, for example, in the field of artificial intelligence and expert systems, which could have great implications for statistical offices faced with serious skilled manpower constraints. The more developed countries in the region had already started to use expert systems in some areas of work.

62. The Seminar noted that graduates in statistics from academic inevitably required further training before being fully productive in official statistical work. The difference in orientation was illustrated by the emphasis on theoretical sampling techniques in academic courses, whereas in most statistical data collection operations sampling errors were insignificant compared to non-sampling errors. National statistical offices had generally had little success in influencing the statistics curricula of academic institutions. It was however noted that new recruits with an academic background in statistics were more easily trainable in fields such as questionnaire design than those without such a grounding.

63. The Seminar recognized the potential importance of statistical education in the context of promoting statistical training capability in developing countries of the region, but felt that financial assistance from donor countries or international organizations to enable academics and official statisticians to meet and discuss issues of common concern on statistical training was not a current priority.

64. In discussing STAT/SMNSS/CRP.4 on the training of statisticians for the 1990s, the Seminar generally endorsed the proposals contained in the paper concerning SIAP's future activities made a number of recommendations relating both to topics and methods of training.

65. The Seminar noted that there was a need for SIAP's training courses to cover not only methods of data collection but also emphasize the analysis, reporting, and presentation of data. Training also needed to be provided on sectoral statistics, for example on social, industrial, agricultural, environmental, and energy statistics. Curricula relating to those topics should be prepared by SIAP and distributed to national statistical offices.

66. The Seminar felt it particularly important that statistics courses built around such policy issues as poverty alleviation, food security and debt management should be offered by SIAP. The Seminar was informed by the Director of the Munich Centre for Advanced Training in Statistics that its courses focused on similar policy issues and had been successful in orienting statistical offices towards the data needs of policy-makers.

67. Training should also incorporate problem-solving approaches in the use of statistics. The Seminar stressed the usefulness of practical exercises in training courses and welcomed the progress reported in the production by SIAP of audio-visual materials.

68. The Seminar also recommended that the training courses of SIAP, especially those in Tokyo, should concentrate where possible on the training of trainers, and that in the selection of participants to those courses priority should be given to participants who had the ability to function as trainers. It was suggested that all national statistical offices should attempt to formally establish a training unit in order to fully realize the benefits of a training of trainers programme.

69. The Seminar recommended that workshops and seminars should be organized for senior management of national statistical offices with a view to orientation on new subject areas and methods as well as on successful approaches to problem-solving in other national statistical agencies. Senior

personnel should also be trained in management techniques relevant to their work.

70. The Seminar noted that where possible, SIAP should give priority to the training of personnel from the statistically least developed offices. National statistical offices should make maximum use of the potential offered by the country courses conducted by SIAP with UNDP support.

VII. THE ROLE OF STATISTICAL OFFICES IN NATIONAL INFORMATION SYSTEM

71. For the consideration of the item the Seminar had before it document STAT/SMNSS/1 prepared by the secretariat. The paper suggested that in discussing the role of government statisticians and of national statistical services in the forthcoming decade two questions deserved attention: first, how national statistical offices could best assure the relevance and priorities of their work; and second, how they could best convey to the public and decision makers the role, importance and difficulties of providing statistical information. The paper suggested that the increased demand for quantitative information and the growth in official statistics over the past decades were mostly a result of the extension of government activities into public welfare and other areas involving complex decision making processes, changing economic practices, and advances in computer and information technologies.

72. The Seminar counselled national statistical offices to prepare themselves for new challenges. However, it was important to recognize that their essential strengths lay in the collection, processing and management of statistical data. The basic statistical outputs were highly valued, without which much of the more sophisticated interpretation and further analysis undertaken by private companies among others would not be possible. In the developing countries in particular there was a need for statistical offices to be cautious about venturing into non-traditional roles. Demand for data continued to grow and the focus on meeting that demand was dictated by scarce resources and the need to train statisticians and data processing staff in basic skills.

73. Nevertheless the Seminar identified two areas to in which it felt statisticians would need to give greater attention: the use of administrative records, and analysis. Given the limited scope for expansion of the census and survey programmes in most national statistical offices, it was inevitable that greater use would need to be made of the various administrative records maintained by government departments and other agencies. The Seminar cautioned that such a development would bring with it a number of problems and reaffirmed that the collection of data from primary sources would remain a principal function of statistical services.

74. Among the major problems in utilizing administrative records, the Seminar noted the weakness or incompleteness of many administrative record systems. In larger countries in particular it was not always easy to impose rigorous statistical standards or ensure that the forms used were appropriate for obtaining statistics. One approach was to seek early involvement where government departments were setting up new or revised systems. For existing systems, greater efforts would be needed to work closely with the administrative departments to improve the procedures and forms used.

75. Most participants agreed that the national statistical offices would need to improve data analysis and interpretation skills. The use of graphics and inclusion of well-written analysis would ensure that the data better relevant and were more able to serve the needs of policy-makers. The need for improvement in interpreting and analysing basic data was illustrated by the growing number of private companies entering that field. If national statistical offices were to play a stronger role in analysis, that would need to be reflected in the training of professional statisticians

76. The hypothesis that government statisticians were ceding leadership in managing large information systems to other professionals did not accord with the experience of countries in the region. To the contrary, many statistical offices reported playing key roles in such systems because of their design and management skills and experience in handling large data sets.

77. Other areas in which statistical offices might move were discussed, although in some of those no clear consensus was reached. Many statistical offices had become more involved in forecasting and felt that in the future it would become even more important. Statisticians possessed the basic skills necessary to understand the complex models developed for forecasting and had good access to the basic data, such as for example on business expectations. Other participants felt that forecasting was not the domain of statisticians; forecasts were sometimes sensitive at the political level and credibility was at risk if they proved to be inaccurate. One country, while generally in agreement with the principle of forecasting, felt that the statistics office should concede the major role to the planning authority and confine itself to providing technical support.

78. The Seminar felt that greater efforts might be made to ensure that the real needs of users were met. One country felt that statistical services might become more responsive to special needs, such as to and in programme evaluation or to assist special interest groups such as women. It noted that the cost of such services need not be high, since it was possible that the results of small pilot enquiries could prove sufficient. Surveys into other non-traditional areas might also become more prevalent. Examples were cited of work on perceptive and attitudinal surveys, sometimes conducted in sensitive political or social areas.

79. Some clear directions for the future could already be detected, especially in areas such as the creation and support of data bases and in linkages with other data bases. To meet the challenges for the future, the Seminar concluded that it was imperative for countries to recognize the importance of statistical and methodological research and technological development in their statistical programmes.

Annex

LIST OF DOCUMENTS

Title	Symbol No.
Provisional Agenda	STAT/SMNSS/L.1
Annotated Provisional Agenda	STAT/SMNSS/L.2
The role of statistical offices in national information systems	STAT/SMNSS/1
Human resources development for statistical services	STAT/SMNSS/2
The infrastructure for statistical services: note contributed by Australia	STAT/SMNSS/3
Impact of technology on statistical services: note contributed by Sri Lanka	STAT/SMNSS/4
The infrastructure for statistical services: note contributed by Fiji	STAT/SMNSS/5
Dissemination and marketing of statistical products: note contributed by the Philippines	STAT/SMNSS/6
Dissemination and marketing of statistical products: note contributed by New Zealand	STAT/SMNSS/7
Impact of technology on statistical services: note contributed by Hong Kong	STAT/SMNSS/8
The infrastructure for statistical services: note contributed by Malaysia	STAT/SMNSS/9
Dissemination and marketing of statistical products: the Australian situation	STAT/SMNSS/CRP.1
Dissemination and marketing of statistical products: country note by Pakistan	STAT/SMNSS/CRP.2
Impact of technology on statistical services: country note by Vanuatu	STAT/SMNSS/CRP.3
Training statisticians for the 1990s: note by SIAP	STAT/SMNSS/CRP.4
The infrastructure for statistical services: country note by Lao PDR	STAT/SMNSS/CRP.5
Dissemination and marketing of statistical products: country note by Singapore	STAT/SMNSS/CRP.6
Dissemination and marketing of statistical products: country note by China	STAT/SMNSS/CRP.7
The infrastructure for statistical services in India	STAT/SMNSS/CRP.8

Impact of technology on statistical services: country note by Japan	STAT/SMNSS/CRP.9
Dissemination and marketing of statistical products: country note by Cook Islands	STAT/SMNSS/CRP.10
Impact of technology on statistical services: country note by Bangladesh	STAT/SMNSS/CRP.11
Dissemination and marketing of statistical products: country note by Afghanistan	STAT/SMNSS/CRP.12

Country papers

1. Afghanistan
2. Australia
3. Bangladesh
4. China
5. Cook Islands
6. Fiji
7. France
8. Hong Kong
9. India
10. Iran
11. Japan
12. Korea
13. Lao DPR
14. Malaysia
15. Mongolia
16. Nepal
17. New Zealand
18. Pakistan
19. Philippines
20. Samoa
21. Singapore
22. Sri Lanka
23. Thailand
24. Vanuatu
25. Viet Nam

FOR PARTICIPANTS ONLY

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ECONOMIC AND SOCIAL COMMISSION FOR ASIA AND THE PACIFIC

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