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**THE STUDY
ON
THE ESTABLISHMENT OF THE INDUSTRIAL
STATISTICS INFORMATION CENTER
IN
THE SULTANATE OF OMAN**

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PREFACE

In response to a request from the Government of the Sultanate of Oman, the Government of Japan decided to conduct a study on the Establishment of the Industrial Statistics Information Center in the Sultanate of Oman and entrusted the study to the Japan International Cooperation Agency (JICA).

JICA sent to Oman a study team headed by Mr. Mitsuru Maruyama, CRC Research Institute Inc., three times between March 1991 and November 1991.

The team held discussions with the officials concerned of the Government of Oman, and conducted field studies. After the team returned to Japan, further studies were made and the present report was prepared.

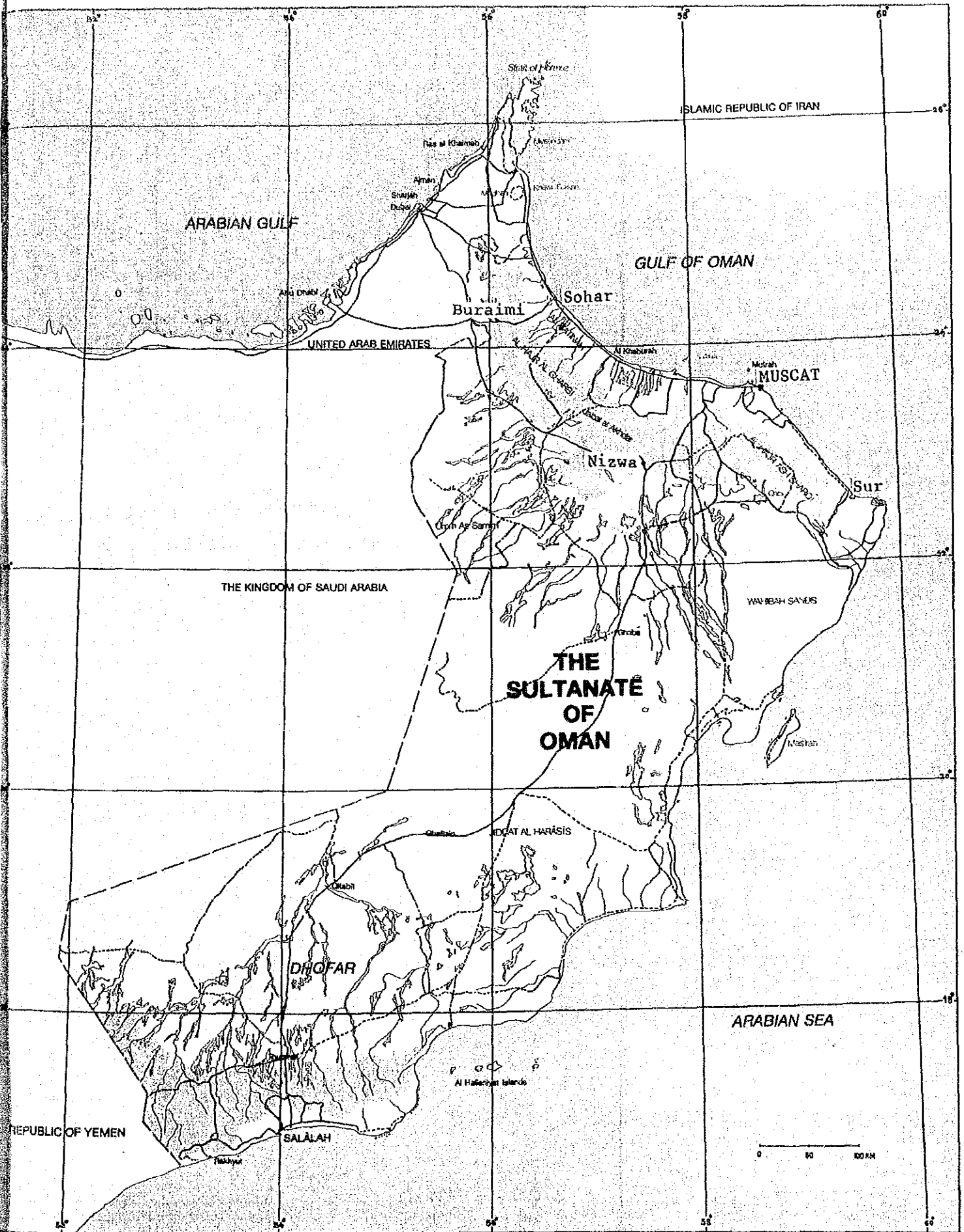
I hope that this report will contribute to the promotion of the project and to the enhancement of friendly relations between our two countries.

I wish to express my sincere appreciation to the officials concerned of the Government of the Sultanate of Oman for their close cooperation extended to the team.

May, 1992



Kensuke Yanagiya
President
Japan International Cooperation Agency



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CHAPTER 1. INTRODUCTION

1.1 Background of the Study

The Sultanate of Oman has adopted a policy of diversification of its oil-dependent economy by encouraging growth of medium and small scale industrial businesses which would enhance utilization of indigenous resources and contribute to the development of various regions in the country.

However, it is difficult for the government to prepare effective policies since basic statistical data on the status of medium and small scale industrial businesses is limited.

Under these circumstances, the government has decided to establish an Industrial Statistics Information Center which will collect and compile industrial statistical data. Towards this end it has made a formal request for technical cooperation to the Japanese government.

In response to this request, the Japan International Cooperation Agency (JICA) dispatched a preliminary study team to the Sultanate of Oman in September 1990. The parties concerned were able to reach agreement upon the scope of work for the study. Subsequently, a scope of work was signed on November 14th of that year. This study has been carried out according to the scope of work with respect to the The Study on the Establishment of the Industrial Statistics Information Center in the Sultanate of Oman during the period beginning March 1991 and ending in March 1992.

As the period 1991 to 1992 in the Sultanate of Oman was designated as the Year of Industry, favorable interest

and readiness to cooperate were demonstrated towards the study without reservation by the various parties concerned in the industrial sector, thus contributing to successful completion of the study.

1.2 Objectives of the Study and its Basic Plan

1.2.1 Objectives of the Study

The purpose of this study are to prepare a concrete program for establishing the Industrial Statistics Information Center, which is designed to provide statistical data on manufacturing industries and to propose a code system for classification of commodities, which would provide a basic means for statistical tabulations.

The study was initiated first by looking at background factors in the Sultanate of Oman such as the current status of the industrial sector, raw materials, the commodity market, the trend of industrial policies, requests of statistics users, the environment surrounding the Statistical Survey and so on. It was then followed by planning and designing of the Industrial Statistical Survey Program which sufficiently reflects the current status of Oman on the basis of the results of the above-mentioned study. Simultaneously, conceptual design was made in respect of functional organization and its upkeep and maintenance of the Industrial Statistics Information Center which will be the agency in charge of implementing the Statistical Survey.

The aim of the study is not only to formulate the plan for the establishment of the Center but also to present a concrete implementation plan of the Center

and the various statistical surveys to be executed after the presence of the final report by the study team.

The Industrial Statistics Information Center shall have organizations to perform following functions:

- (1) Data collection
- (2) Examination of collected questionnaire
- (3) Tabulation and analysis of data collected
- (4) Arrangement and publication of statistical tables
- (5) Promotion of utilization of statistical tables
- (6) Training and enlightenment

1.2.2 Basic Plan

- (1) Planning for the Industrial Statistics System of the Sultanate of Oman must reflect the particular status of that country in the system, while owing much to the standard system use which is recommended by various international organizations.

In this study, consideration shall be given to the scope and content of the Statistical Survey, commodity classification, functions of the Center and the Statistical Survey System so that features specific to Oman shall be adequately reflected.

- (2) During the course of the study, sample surveying of various establishment operations was actively encouraged in order to collect information to supplement existing administrative data and compensate for the lack of information in the hands of concerned parties as well as
 - 1) to identify realistic problems which may impede the Industrial Statistical Survey (on the side of both surveyors and establishments), and

- 2) to discover realistic points to be improved concerning the preliminary designed statistical survey methods.
- (3) During the course of this study, recommendations shall be submitted concerning the structuring of institutional, organizational and structural foundations which are important and necessary for the efficient operation of an industrial statistics system.
- (4) The counterpart agency was requested to make its best effort to participate in implementation of the Industrial Statistical Study so that the results obtained by the joint study would achieve better recognition, and impartment of knowledge and transfer of technology to the counterpart agency are simultaneously encouraged.

1.3 Study Areas

The areas which were visited for the study included the Muscat capital area; the main regional cities, such as Nizwa, Ibri, Sohar, Sur, Ibra and Salalah where Ministry of Commerce and Industry (MCI) offices are located. In the Nizwa region, establishments located in Izki and Dahla in nearby Wilayats (Administrative districts) were also visited. These are under the control of the Ministry of Commerce and Industry, Nizwa Regional Office.

1.4 The Study Team and The Parties Concerned

In addition to the JICA study team, an advisory team from the Ministry of International Trade and Industry (MITI) also participated in the study. Appendix 1 lists members of the study team.

The counterpart agency in Oman is the Ministry of Commerce and Industry, Directorate of Industry. The Directorate of Industry established a steering committee inviting participation of representatives of the Development Council, the Ministry of Labor and Vocational Training (though reorganized in December, 1991 to become the Ministry of Social Affairs and Labor, it will be called nevertheless the Ministry of Labor and Vocational Training in this report as it was so called at the time of study), the Royal Oman Police and the Oman Chamber of Commerce and Industry.

CHAPTER 2. GENERAL OVERVIEW OF OMAN

2.1 Land and Natural Resources

Oman is the second largest country on the Arabian peninsula (310,000 sq. km) and controls the strategically important Straits of Hormuz, where the main shipping lanes to/from the Arabian Gulf pass through Omani territorial waters. The population of the country is not officially announced up to now, however, is estimated at 2 million for national financial administration planning purposes.

The majority of the Omani population is distributed across the Batina coastal plains in the north. The Batina plains are blessed with water resources and are fairly rich in cultivated land.

The principal municipalities are Muscat, Sur, and Sohar located on the Batina plains, Ibri and Nizwa in the northern interior, and Salalah in the south.

Oman, an oil producing country, is not endowed with unlimited oil resources, with other oil producing countries in the Arabian peninsula. However, during the 1970s and 1980s, there were significant new discoveries of oil fields in both the southern and northern areas. The total proven exploitable oil reserves of Oman are now said to be more than 4 billion barrels.

The proven reserves of natural gas have also increased in the 1980s, but not yet enough to promise an export. Instead, natural gas is expected to play an important role as an energy source for domestic industries.

Apart from hydrocarbon resources, Oman is rich in various kind of mineral deposits, some of which has been mined (copper, chrome, gypsum, limestone and marble) while others are waiting for development (manganese, coal, asbestos, etc.).

Oman's fishing resources have, according to many past studies, good potential. Traditionally fishing has provided a vital livelihood for the inhabitants of the coastal region; today it provides an important source of non-oil exports.

2.2 The Economy

2.2.1 Outline of the Economy and Five Year Development Plans

- (1) His Majesty Sultan Qaboos, since his accession in 1970, has been strongly expediting the development of domestic economy. A large part of state revenues has been spent on the creation of infrastructure. As a result, the fundamental facilities -- new airports, ports, roads, schools and so on -- were constructed by 1975.
- (2) Later, modernization projects in Oman were promoted by consecutive five-year development plans.

That is, the infrastructure was prepared and some industries were established during the first Five-Year Plan (1976-80). The following Five-Year Plan (1981-85) subsequently emphasized the creation of the infrastructure and promotion of manufacturing industries. The main objectives of the third Five-Year Plan (1986-90) were the creation of infrastructure in regional areas and promotion of agriculture and livestock farming, fisheries and small and medium scale manufacturing industries. Up

until that time the basic infrastructure had been prepared and the priority of capital investment had been shifting from the infrastructure sector to industrial sectors. However, this plan was modified and investment reduced and projects which were not so urgent were postponed because of a decline in oil revenue resulting from weaker oil prices on the international market after the beginning of 1986.

In the fourth Five-Year Plan (1991-95) which was announced on January 7th, 1991, emphasis is placed on the consolidation of the industrial base (restructuring of the industrial structure) and diversification into revenue sources other than oil. Total revenues are projected to be RO 8,571 million based on an average oil price of US\$20 a barrel in the coming five years (an increase of 22.8% over 1986-90 actual) and total expenditure is projected to be RO 9,450 million (an increase of 10.2% over 1986-90 actual) supported by predictions of an increase in official revenue.

- (3) The increase in Gross Domestic Product (GDP) is an indication of the remarkable expansion of the economy during the said Five-Year Plans. Estimated GDP in 1970 was RO 105 million, but by the end of the second five-year plan in 1985, GDP had increased to RO 3,454 million. However, as a result of the sharp fall in world oil prices in 1986, GDP fell to RO 2,800 million. GDP in 1990 recovered to RO 3,522 million (provisional), due to the increase in oil revenue, and of this amount the oil sector accounted for 44%.

The table below summarizes transitions in the increase of GDP during the third Five-Year Plan as well as targets set out during the fourth Five-Year Plan.

Table 2-2-1

Principal sector	Third five year plan 1986 - 1990	Fourth five year plan 1991 - 1995
Oil sector	1.1	4.9
Non-oil sector	2.4	7.3
(a) Commodity Production Sectors (Manufacturing)	0.3 (12.9)	11.1 (12.9)
(b) Services Producing Sectors	3.1	6.0

2.2.2 Characteristics of National Finance

- (1) In Oman, dependence on oil revenue is extremely high. Of total revenue oil revenue amounted to 92% in 1980, 85% in 1985 and 81% in 1989. (Statistical Year Book, 1989).

It is noted that the published data of 1989 was available when the study started.

- (2) The State General Reserve Fund system was set up in 1980 in order to strengthen characteristics of national finance and to increase non-oil revenue. 15% of oil revenue was reserved for the fund every year until 1985. The scheduled reserve, 5% after 1986, was interrupted due to the decline in oil prices and was resumed from 1989 with the rise in oil prices. The reserve was increased to 15% in 1991 and onward.
- (3) The chronic financial deficit has continued because an increase in expenditure could not be covered by revenue. With the intention of making up the shortage of revenue due to the fall in oil prices, the government took measures such as increasing oil production; cutting down on expenditure; postponing new projects; devaluing the Rial Omani against the

U.S. Dollar and curtailing the reserve rate and withdrawal from the State General Reserve Fund. The basic characteristics of national finance are predicted to continue unchanged through the fourth Five-Year Plan, but the financial deficit is projected to decrease substantially during that period.

The table below shows the projected financial deficit.

Table 2-2-2

Item	Third five year plan (1986 - 1990)	Fourth five year plan (1991 - 1995)
	(RO million)	(RO million)
Revenue	6,978	8,571
Expenditure	8,577	9,450
Financial deficit	1,599 (23%)	879 (10%)

2.2.3 Employment - Omanization

Following the accession of His Majesty Sultan Qaboos, Omanization is taking place in every field at an ever-increasing pace. In 1990, the labor force in Oman was estimated to number approximately 529,000, 207,000 (39.2%) of whom are considered to be Omani nationals.

The majority of the Omani national labor force is employed in the civil service, agriculture and fishing, while the non-Omani labor force is predominantly employed in private sector commerce, industry, construction, and service businesses.

In order to encourage further Omanization of the private sector, the Omani government has put into

effect new measures to promote Omanization of private sector employment beginning in October 1991. These measures include government subsidies equal to 50 - 80% of wages; allowances for Omani employees during the first 1.5 - 3 years, and compensation for the cost of vocational training of Omani employees by private enterprises.

The Omani government has set a target of increasing the Omani labor force to 308,000 in 1995, which will be equal to 44.7% of the projected total labor force of 690,000.

2.3 National Policies for Industrial Development

One of the long-term aims of the industrialization of Oman is to provide a firm foundation for sustainable economic growth. Although Oman had no significant light manufacturing industry to meet the demands of its domestic market in the 1970s, by the end of 1989 this sector had achieved such remarkable growth that its contribution to the national economy was 4.2% of the GDP. There has also been considerable success in substitution for imported construction materials and household necessities.

Presently, various incentive measures to promote medium and small scale industries such as income tax exemption, protective tariffs, subsidized low interest rate loans and grants, provision of industrial estates complete with sufficient infrastructure and common public services are being provided by the Omani government. Decentralization of manufacturing activities is a consistent strategic policy of the government in order to smooth out existing income and employment differentials between the capital area and rural areas, and to disseminate the fruits of

industrial development to rural areas.

In reality however, industrial activity in rural areas seems to be significantly limited by the small size of local markets and lack of skilled manpower. And also supporting measures provided by the government to promote regional manufacturing enterprises have not yet necessarily obtained the expected results due to lack of specific information concerning status of industrial activity in rural areas.

The following summarizes industry-related items in the fourth Five-Year Plan.

- (1) Increased non-oil sector revenues are targeted. 12.9% annual growth of the GDP has been targeted for manufacturing sectors.
- (2) Industries, mining, agriculture and fisheries which are related to the utilization of indigenous resources shall be strengthened.
- (3) Well balanced development shall be implemented so that 60% of government public expenditures shall be allocated to the development of rural developing areas in order to smooth out regional differentials.
- (4) Development of human resources shall be promoted in order to improve the role of Omani nationals in the national economy, while balance between demand for and supply of Omani workers shall be attained in various sectors.
- (5) Competition in the private sector shall be encouraged by providing various incentive measures, tax exemption, low interest rate loans and grants for manufacturing business plans so that a free market oriented economy shall be realized.

2.4 The Government and Local Administrative Institutions

The present state administrative system comprises of a Cabinet of Ministers, the Cabinet Secretariat, Specialized Councils, the State Consultative Council and the Governorate of the Capital and Ministries.

The Cabinet of Ministers is the highest executive authority, deriving its power from His Majesty the Sultan to whom it is collectively responsible.

It is the Sultan who issues the laws and decrees of the land. International treaties, agreements and charters signed or approved by the Sultan become laws from the date of their publication in the Official Gazette.

For administrative purposes, the Sultanate is divided into 59 Wilayats, each of which has a Wali (Governor).

Effective from December, 1991, certain governmental bodies were integrated and or/abolished, and the Cabinet of Ministers was also restructured.

Appendix 2 shows the government organization of Oman and Appendix 3 shows the organization of the Ministry of Commerce and Industry and the Directorate of Industry which is the counterpart agency in Oman.

2.5 Social and Economic Infrastructure

2.5.1 Educational Institutions

An education program is essential for the development of Oman and has been given the highest priority over the past 20 years. In 1970, when the initial program of education development was initiated, there were

only three schools for boys in the country with a total of 909 students.

However, the number of schools for general education at the primary, preparatory and secondary level had increased to 363 by 1979/80 and 741 by 1989/90. The number of students had also increased to about 95,000 and 323,000 respectively (Statistical Year Book, 1989).

Islamic education, vocational/technical training and training for teachers are also emphasized in the development of the education system.

The greatest achievement in the development of the education system was the opening of Sultan Qaboos University in 1986. The university comprises six colleges: Education and Islamic Sciences, Science, Agriculture, Engineering, Medicine and Arts. An Economic and Commerce College will be opened in 1993.

2.5.2 Roads, Airports and Harbors

- (1) The extension of road networks has been regarded as one of the most important factors in infrastructure development. The length of paved road in 1970 was only 10km. However, it has steadily extended to about 2,200km in 1980, 3,700km in 1985, and 4,600km in 1989. Now major roads from the capital area to provincial towns are paved.

Along with road construction, the number of vehicles in the state increased from about 108,000 cars in 1980 to 268,000 in 1986, and the number of driving licenses issued also increased from about 21,000 in 1980 to 42,000 in 1989 (Statistical Year Book, 1989).

- (2) Now there are two international airports, one at Seeb to the west of Muscat and one in Salalah.
- (3) There are two modern harbors for general cargo, at Qaboos and Raysut, but only one oil port at Mina Al-Fahal in the capital area.

2.5.3 Electricity

Oman's electric generating capacity in 1970 was no greater than 4MW. However it has since steadily grown to as much as 593MW in the Muscat region, 111MW in the Dhofar region, and 270MW in other region by the end of 1989. Electric generation facilities that have been constructed in recent years are either the gas turbine or the steam turbine type, quickly replacing diesel power generation in rural areas.

2.5.4 Post and Communication

A number of post offices have been constructed since 1970 in various locations. As of 1987, 78 post offices had been opened. Although ISD (International Speed Delivery), a special house-to-house delivery service, operates in the Muscat capital area, the majority of the population still depends on a post office box service. Introduction of a house-to-house delivery service is under consideration for commencement in 1992.

A telecommunication center was constructed in 1984-1985 in a suburb of Muscat. The total number of telephone channels as at the end of 1990 was 143,580, out of which 96,800 channels interconnected subscribers in various areas.

CHAPTER 3. OUTLINE OF THE INDUSTRIAL SECTOR

The Omani government has set forth a challengingly high target of 12.9% annual growth rate for manufacturing sector to be attained in their fourth Five Year Plan. This chapter will discuss policies being implemented by the Omani government in the field of industrial sector, industry-related regulation in general; industry-related licensing and registration systems, as well as policies to encourage growth of industrial activities.

3.1. Roles and Targets of the Industrial Sector

3.1.1 Reducing the Oil Sector's Share and Increasing Non-oil Sector's Share of GDP

According to Statistical Year Book 1989, the share contributed by the oil sector to the GDP was 59.18% in 1981 but had decreased to 45.26% in 1989. Despite the reduction, its share is still high and the oil sector is a very important element of the national revenue.

In the same period, the share contributed by the non-oil sector to GDP increased to 56.34% from 41.93% and the manufacturing sector's share has grown from 1.08% to 4.24% steadily increasing the value of its output from RO 27 million to RO 137.1 million.

The frequent fluctuations in oil market prices have caused uncertainty about the long term status of financial programs.

The Omani government has been endeavoring to stabilize oil prices. However, since crude oil is one of the world's strategic products, that goal is

very difficult to attain. Therefore, the government has been attempting to shed their monoculture type economy and to reduce the influence of oil price fluctuations on the national economy as much as possible. Promotion of manufacturing industries is a principal component of the national policy targeted to that purpose.

3.1.2 Establishing a Post Oil National Economy

As Oman's oil resources are limited, the government has to establish the foundation of a stable national economy built on the non-oil sectors before the depletion of their oil reserves. However, it will be very difficult for the non-oil sectors to substitute for oil revenue in the short term. The manufacturing sector is therefore charged with the important task of increasing its contribution to the development of the national economy representing the non-oil sectors.

3.1.3 Dispersion of Establishments in Regional Areas

Dispersion of business establishments in regional areas is expected to have the following results:

- (1) To advance the regional economy and to create employment opportunities for local inhabitants.
- (2) To stabilize the regional economy and to allocate national wealth more evenly, preventing emigration of the rural population to the capital area and reducing social dissatisfaction.

In order to achieve these results, in the fourth Five-Year Plan public expenditure allocated to the capital area has been reduced in order to substantially increase allocations to regional areas.

3.1.4 Promote Light Industries

As manufacturing industries in Oman are primarily light industries, they are expected to play an especially important role. The Omani government expects promoting light industries to have the following effects.

- (1) Use of indigenous raw materials other than oil.
- (2) Import substitution to save foreign currency.
- (3) Creating value added through industrial activity.
- (4) Creating investment opportunities for internal and external investors.
- (5) Accumulating production technology and know-how, and factory management by Omani nationals.
- (6) New market development internally and externally, especially in Arabian Gulf countries.

3.1.5 Role of Agro-industry

Promotion of agro-industry introduces new establishments into rural areas, creates investment opportunities for investors and provides local people with job opportunities. Moreover, increasing the extent to which agricultural and marine products are processed results in increasing their value and extending their period of preservation.

3.2 Industrial Licensing and Registration Systems

3.2.1 Industrial-Relation Laws

The Legal system of Oman as a whole is based on Sharia (Islamic Law), but there is now a wide range of laws governing economic and industrial activities. Laws are made by Royal Decree and published in the Official Gazette. English translations are available, but only the Arabic version is official and binding.

The following is a brief description of the characteristics and particulars of principal Omani laws, with respect to commercial/industrial activities. The summary has been made with industrial statistics in mind.

(1) Commercial law

The Commercial Law is positioned as a nucleus of commercial activity-related laws because it stipulates various aspects of commercial activities comprehensively and concretely. The law stipulates that accounting books - a day book and a stock book at least - must be kept by an enterprise. Despite this legal stipulation, actual final account statements and balance sheets are not usually so well prepared, especially in establishments with fewer than 10 employees, according to sample interviews.

(2) Commercial Registration Law

The Commercial Registration Law stipulates the legal basis of the commercial registration system.

(3) Commercial Companies Law

Commercial Companies Law defines five forms of commercial companies: general partnerships, limited partnerships, joint ventures, joint stock companies and limited liability companies. It stipulates the conditions of establishment, organization and management of these companies. According to the Statistical Year Book 1989, 80.9% of all companies in Oman take the form of sole proprietorships, which are under the jurisdiction of the Commercial Law and the Commercial Registration Law but outside the jurisdiction of the Commercial Companies Law.

(4) Law for the Organization and Encouragement of Industry

This law was enacted in 1979 for the purpose of further development and diversification of the industrial sector. It gives a legal basis to the industrial licensing and registration system and the various government policies encouraging industrial companies.

(5) Royal Decree No. 40/87 - Financial Support System for the Private Sector in the Field of Industry and Tourism - stipulates detailed regulations for governmental interest-free loans for industrial projects (one of the policies encouraging industrial companies). The strong desire of the government for industrial development is shown by the law identified above in (4) and this Royal Decree.

(6) Law of Income Tax on Companies stipulates taxation on the business profits of all "Companies" and "Sole proprietorship entrepreneurs" in Oman.

The law was instituted and amended several times during the 1970s, but has not been put into force so far, except for taxation of foreign companies and Omani companies with a certain proportion of foreign equity to total capital. The reason for failure to fully implement the law seems to be that many companies find it difficult to regularize their accounts.

It was finally decided, in May 1991, that all fiscal 1992 income of Omani sole proprietorship entrepreneurs and companies wholly owned by Omani nationals shall be subject to taxation in 1993. By the implementation of this tax law, the bookkeeping and accounting system of all enterprises should eventually be regularized, favorably improving the accuracy of industrial statistical data.

It should be remembered that all industrial enterprises are exempt from income tax during their first five years of operation, beginning on the day of initial industrial registration and ending with the time of first registration renewal, as stipulated by the "Law for the Organization and Encouragement of Industry".

- (7) Omani labor law covers a wide range of regulations applicable to employees, employers and their interrelations. It stipulates some fundamental rights for employees, such as a written contract, a safe work place, annual paid leave, sick pay, the right not be dismissed without due course and so on. It minutely stipulates the conditions under which expatriate workers may perform work in Oman and the obligation of employers to employ Omani nationals on as wide a scale as possible. However, at the same time, it specifies that at the workplace Omani nationals and non-Omanis are to be on the same

footing.

A new compensation system worthy of attention is being introduced to encourage increased employment of Omani nationals by the private sector (refer to 2.2.3).

3.2.2 Licensing and Registration Systems

Oman has licensing and registration systems for industrial activities, as a basis for government policies to guide, support and administer individual companies and merchants for the overall purpose of industrial development. The following is a description of the characteristics of principal licensing and registration systems.

(1) The commercial registration system

Subjects of registration are all business establishments in Oman, including foreign establishments, with the exception of those of less than RO 3,000 capital. Each applicant applies to the Ministry of Commerce and Industry or one of its regional offices to register its name, location, proprietorship and other details within one month of the date of commencement of business. The Ministry of Commerce and Industry checks each application and gives a registration number to each establishment, which must be displayed on the signboard placed outside the establishment's premises.

One registration number is given to each establishment, even if an establishment engages in several different business activities on the same site. Establishments can receive the same registration number if a company has two or more establishments located in the same MCI administrative

area. If the locations of the establishments are in different administrative areas, different numbers are given to them.

As for renewal of registered data, the Commercial Registration Law stipulates that each amendment or change with respect to any items in the registration shall be reported by the establishment within one month of their occurrence. However, this legal requirement is not actually fulfilled by the establishments, and there are no effective government measures to keep registered data up to date. Because the valid period of registration is decreed not to exceed 5 years for each establishment, registration data is updated at least every five years by re-registration.

The fact that 77% of establishments which were interviewed during the first field study were able to confirm their registration numbers promptly is due to that they were obliged to show their registration numbers on the aforementioned sign boards. Also, they had to use their registration numbers in their commercial vouchers so often they were able to memorize them.

According to the Statistical Year Book, 1989, the number of registered establishments was 39,397.

(2) Industrial licensing and registration

In addition to commercial registration, all manufacturing establishments are required to apply for industrial licensing and registration based on the Law for the Organization and Encouragement of Industry.

1) The registration system

The subjects of this system are all establishments manufacturing by mechanical means. This includes mixing, assembling, filling and packing operations.

Each applicant, prior to starting his business operation, must submit particulars of the proposed establishment to the Ministry of Commerce and Industry. The Ministry of Commerce and Industry and other governmental agencies examine the application from the angles of feasibility and location and, if necessary, give advice. After these procedures the industrial license is issued with a license number. Thereafter, the establishment should begin operations within six months of receiving the license.

Within three months from the start of operations, the establishments must apply to Ministry of Commerce and Industry for industrial registration with more actual information than that required for the licensing application.

When the Ministry of Commerce and Industry has received the application, tentative registration is achieved after an initial inspection by the Follow Up and Control Section of the manufacturing site, to confirm basic information such as location, name of establishment, license number and so on. When the initial inspection is completed satisfactorily the registration is formally completed.

Approval and registration of industries is primarily administered by the head office of the

Ministry of Commerce and Industry, but regional offices also administer approval and registration of certain industries. Until recently, the power of regional offices to administer had been limited to four types of industries located in the areas of their jurisdiction with capital investment no greater than RO 20,000. Since September 1991 however, the power has been modified to encompass twelve types of industries with capital investment no greater than RO 100,000. All other establishments still fall under the jurisdiction of the head office of the ministry. Types of industries which fall under the jurisdiction of regional offices are as follows.

- Carpentry and wooden furniture production workshops
- Steel and iron workshops
- Aluminium fabrication shops
- Bakeries
- Cement block factories and other cement products
- Crushers and screens
- Small flour mills
- Gold and silver workshops
- Fiber glass products except boats
- Small printing presses
- Foodstuffs
- Tissue paper

In reality, the number of additional establishments administered by regional offices under the extended power is rather limited. However, the extended power allows regional offices to collect diverse information concerning manufacturing establishments. The Industrial Statistical Survey can benefit from the extended

power granted to the regional offices.

The foundation of manufacturing establishments with capital investment greater than RO 250,000 requires the approval of a committee organized by the Ministry of Commerce and Industry, Directorate General of Industry and any relevant governmental agencies, in order to prevent unnecessary competition.

Approval is given and registration is recorded for each manufacturing unit located in a definite location. Enterprises having a number of establishments must apply for and obtain approval and register each of their establishments separately. Enterprises operating a number of industrial activities within the same establishment must apply for and obtain approval and register each of their industrial activities separately.

How precise the industrial registration data actually is, however, remains questionable. Initial follow-ups and inspections by Follow Up and Control Section have been conducted for most of the industrial establishments registered since 1983. However, few further follow-ups have been conducted due to a lack of officers available for the survey. It can therefore be concluded that registration data has not been checked periodically by government agencies.

In addition, manufacturing establishments have not modified their registrations in accordance with the stipulations of the "Law for the Organization and Encouragement of Industry" which makes it mandatory to apply for such modifications in the event of any changes in the

enterprises circumstances. In fact, sample interviews of establishments conducted by the study team revealed that a considerable number of manufacturing establishments had not applied for modifications of their industrial registrations with respect to capital investment, place of establishment, or types of industrial activities. The fact that only 45% of industrial establishments actually interviewed were able to confirm their industrial registration numbers seems to indicate lack of recognition on the part of establishments of their obligation to apply for an industrial registration, probably because industrial registration numbers rarely need to be used. By comparison, the obligation to comply with commercial registration law seems to be more widely recognized.

2) Re-registration system

The re-registration system in Industrial Registration has been in effect from August 1991. According to the Royal Decree, every industrial establishment registered, shall, with some exemptions, apply to this renew its registration every five years.

The establishments to be exempted from the renewal system are those in which the total investment in machinery is less than RO 5,000 and those six limited industrial activities, i.e. small mill (spices, coffee, flour), bakery (bread, sweets), foodstuff packaging, steel work shop/ metal products/neon-signs, carpentry and block factories.

Those establishments whose original registration has exceeded 5 years, on the effective date of

immediately for re-registration. Though lots of small establishments may be exempted from this system, there is no doubt that this system will contribute to improving the accuracy of Industrial Registration which is the source of basic information for industrial statistics.

3) Subject for registration

In legal terms, the establishments that are required to register are defined as "industrial firms". This means every one whose aim is manufacturing complete or semi-complete products from raw materials or basic manufactured products by mechanical power, though there are various exceptions.

The following is a summary of those exceptions on the basis of information provided by the Ministry of Commerce and Industry, Industrial Register Secretariat.

- All manual industries which do not use "mechanical means" are exempt without exception.
- Certain establishments which use "mechanical means" may be exempt depending on their scale of operation.

For example, Goldsmiths and Silversmiths, which are run in a manner of home industry or small shop, are usually excluded, even if they use mechanical power such as burners.

Likewise, so-called "tailoring shops" that do tailoring in the shop using two or three sewing machines are also exempt, while garment

machines are also exempt, while garment manufacturers which operate independent factories using a large number of sewing machines are not exempt.

- Certain establishments which are not engaged in production of goods in their main line of business but are engaged in certain production activities as a side line may be required to register for their production part.

For example, repair workshops are, in principle, excluded, but those engaged in manufacturing as a side line are included if their total investment for machinery is RO 5,000 or more. Also construction establishments are, in principle, excluded, but those manufacturing their own construction materials such as blocks are temporarily registered each time they do so.

In reality, however, most such registrations would not go beyond provisional registrations because of the short construction period.

- Bakeries and confectioneries are classified as manufacturers regardless of whether they are wholesalers or retailers, insofar as they use mechanical means for production.
- Manufacturers of furniture and joinery which are in general made to orders are classified as manufacturers.
- On the contrary, those establishments which are engaged in the canning or packaging of foods consisting of agricultural, fishery or dairy products, using mechanical means, are required to register. Those engaged in the production of

materials as well as in the production of the finished products themselves, however, are exempt from registration for their production of materials.

(3) Labor clearance and labor card system

In the context of a growing economy and a shortage of Omani national laborers, the percentage of expatriate workers to all workers in Oman is rather high. The labor clearance and labor card system has been established so that Oman may control these expatriate workers and keep Omani society in good order.

Labor clearance must be obtained from the Ministry of Labor and Vocational Training or its regional offices by every employer employing expatriate workers upon establishment of the firm and whenever any change in the number of expatriate workers takes place. Before obtaining labor clearance the employer must submit a questionnaire including a detailed description of the employment situation and information on its management.

A labor card must be obtained and renewed every year by each expatriate worker. It is given to each expatriate worker through the employer, after the Ministry or its regional offices have reviewed whether the conditions, such as legal entry into the Sultanate, compliance with residence regulations, a contract with an employer and so on, have been fulfilled. The labor card lists name of the firm, commercial registration number, the worker's name and nationality, the location of the firm and the International Standard Classification of Occupation (ISCO).

(4) Foreign business and investment law

Any non-Omani individual or company who plans to engage in business must obtain a permit from the Ministry of Commerce and Industry before starting business, under the provisions of the Foreign Business and Investment Law.

Conditions for obtaining a permit are usefulness of the project, amount of capital to be invested and percentage of Omani participation.

At present the permissible percentage of non-Omani participation is limited up to 49% in general, and up to 65% in case of special permission for the purpose of industrial development in Oman. An exception is made for capital participation up to 100% by GCC states.

(5) Membership in the Chamber of Commerce and Industry

Every establishment granted commercial registration must join the Chamber of Commerce and Industry. However, membership is not enforced by law. Members are requested to pay an admission fee and an annual fee assessed according to the capital of the establishment.

3.3 Industrial Development Policies of the Ministry of Commerce and Industry

In line with national strategies, the Ministry of Commerce and Industry (MCI) protects infant manufacturing enterprises, in direct or indirect ways, from import competition.

Direct protection measures consist of:

- (1) Custom duty exemption for imports of materials required for domestic production activities
- (2) Introduction of tariff protection in very special, exceptional cases.
- (3) Provision of interest-free or low interest loans to industrial firms
- (4) Subsidized utility rates for production activities.

An indirect package of incentives to local enterprises is summarized as follows:

- (1) Exemption from income tax for five years from the commencement of the operation
- (2) Provision of industrial estates in prospective industrial regions
- (3) Encouragement of local investors and entrepreneurs through preparation of feasibility studies for promising industrial projects

Although straightforward measures to limit import competition are the logical first step in industrialization, the Ministry of Commerce and Industry well understands the negative effects of protection.

Consequently, market-oriented approaches to promote export substitution as well as import substitution are to be improved gradually in the future.

The following table is quoted from the MCI's statistical summary to show that the number of incentives actually applied up to now is not exceptionally large in comparison with the number of registered manufacturing establishments.

Table 3-3-1 Number of Incentives

Year (Jan-Jun)	79	80	81	82	83	84	85	86	87	88	89	90/6
Tariff protection	2	2	2	1	6	3	12	5	9	8	5	-
Exemption from custom duties for equipment	1	-	1	4	1	13	22	19	9	20	31	18
Exemption from custom duties for raw materials	-	-	2	3	4	16	10	27	29	26	28	33
Exemption from income tax	-	-	-	-	-	-	-	-	-	-	3	-
Total	3	2	5	8	11	32	44	51	47	54	67	51

(Source: Glance on Industries in Oman till June 1990)

It can be seen from the table that the number of cases actually implemented is not particularly large in comparison to the number of industrial establishments registered.

However, a recently employed administrative measure to extend soft loans to small scale enterprises is attracting masses of small entrepreneurs to apply for loans.

3.4 Activities and Structure of the Industrial Sector

It is not exaggerating to say that the industrial sector in Oman is composed primarily of manufacturing industries (light industries), with the exception of the oil producing industry. The number of large scale manufacturing enterprises and/or nationalized enterprises is very limited and details of their activities are known with relative accuracy. What is problematic is the activities of small size enterprises and/or sole proprietorship which comprise the majority of industrial enterprises in Oman. No information is available for their activities other than industrial registration records.

In this section, the activities and structure of the manufacturing sector in Oman shall be reviewed by way of industrial registration records, followed by supplementary comments based on the field study of industrial establishments conducted by the study team.

3.4.1 Characteristics of Industrial Establishments as Revealed by Industrial Registrations

The total number of registered manufacturing establishments was 3,342 at the end of 1989. The number of registrations from 1986 to 1989 was as follows:

Year	1986	1987	1988	1989
Number of establishments	445	221	189	163

(Source: Glance on Industries in Oman till June 1990)

1,931 establishments were registered in early 1980s, which shows 58% of total 3,342 in 1989. It is obvious that number of newly registered establishments has been declining since 1987, because new entry made penetration into every segment of

industry and simultaneously the business trend was at a standstill due to a fall in oil prices during that period.

The summary of the registered establishments is described from the viewpoints of scale of capital investment, legal status, and type of industry as follows.

(1) Capital size of establishments

The majority of establishments are small scale establishments whose capital is not greater than RO 25,000.

(2) Legal status

Establishment by sole proprietorship is the predominant form. More than 80% of registered establishments are of sole proprietorship. Conversely, limited liability companies and joint stock companies are few in number as shown in the following table.

Legal status	Number	%
Sole proprietorship	2,703	80.9
General partnership	383	11.5
Limited partnership	87	2.6
Limited liability	135	4.0
Joint stock	34	1.0
Total	3,342	100.0

(Source: Statistical Year Book 1989)

Large amounts of investment are not required due to the small domestic market.

Since the Omani stock market is still immature, it is also difficult for entrepreneurs to raise large amounts of capital through it.

(3) Types of industry

Manufacturers of non-metallic mineral products are in the majority. This category, including concrete block and brick manufacturers, comprises 54.8% of establishments. The second ranking category is carpentry, 22.1% and the third is fabricated metal products, 16.3%. These three industries cover 93.2% of the total. The following table indicates the number of establishments by industrial activity shown at the two digit level of the ISIC, Rev. 2.

ISIC code Rev.2	Activity	Number of establishments	(%)
31	Manufacture of food & beverages	130	3.9
32	Textile wearing apparel & leather	12	0.4
33	Wood & wood products (incl. furniture)	740	22.1
34	Paper & paper products, printing & publishing	34	1.0
35	Chemical and chemical products	46	1.4
36	Non-metallic mineral products	1,827	54.8
37	Basic metal industries	2	-
38	Fabricated metal products	546	16.3
39	Other manufacturing industries	5	0.1
	Total	3,342	100.0

(Source: Glance at Industries in Oman till June 1990)

3.4.2 Manufacturing Industry in Oman as seen through the Study

The principal objective of the study was to confirm the capability of establishments to correctly respond to an Industrial Statistical Survey as well as to assess the amount of work imposed on enumerators through each stage of the Survey. This included searching for establishments, explaining and

distributing questionnaires, urging establishments to fill out the questionnaires, collecting filled out questionnaires, and primary checking of collected questionnaires.

The Study of course provided opportunities to glimpse the activities and structure of the manufacturing sector. Characteristics of the Omani manufacturing sector as seen in the course of the Study are as follows. Results of the sampled survey are also summarized in the table of Appendix 4.

- (1) According to the local sampled survey conducted in the Muscat capital area, the number of establishments actually confirmed as being in operation is 364 out of 598 establishments as given by the registrations in that area. In addition, survey questionnaires were distributed to 404 establishments including 40 establishments which were not covered by industrial registrations, with questionnaires actually collected from 294 establishments only (as of Dec. 1991).

The number of registered establishments mentioned above includes a considerable number which have discontinued or changed their trades. On the other hand, a number of establishments which are operating without registration is relatively small, so that the number of establishments actually operating is much smaller than that indicated by the 3,342 industrial registrations.

The field study was undertaken in two steps as follows. The first step was undertaken by the Omani counterpart agency together with thirteen temporarily employed enumerators using questionnaires prepared beforehand by the study team. The study team participated in the second step for the joint study with the Omani counterpart agency.

Questionnaires were distributed from early September, 1991 onward and for the two month period ending the end of October, 1991, 381 questionnaires were distributed and 262 questionnaires were collected (the rate of collection being 69%).

Appendix 6-1 summarizes establishments from which questionnaires were collected and appendix 6-2 shows distribution/collection of questionnaires by areas in the Muscat capital area and rate of entry for the major items on the questionnaire.

Out of those, the responses of 45 establishments sampled because of their relatively accurate responses -- were classified by type of industry and by commodity as shown in appendix 6-3 as an example of tabulations (as at the end of Oct. 1991).

- (2) Industrial registration records indicate that the large majority of establishments is engaged in the manufacture of non-metallic products (concrete blocks, bricks), construction-related carpentry and manufacture of fabricated metal products. These kind of establishments operate with very few Omani employees and simple manufacturing facilities, sensibly responding to business trends. Also they discontinue or change their trades very frequently.
- (3) Manufacturing industries which can utilize indigenous raw materials are very few including manufacture of concrete blocks and aggregates. A large majority of manufacturing industries import raw materials, however the cost of imports is relatively higher than the competitors in Dubai and similar places.
- (4) The amount of capital investment indicated in industrial registration records represents a

projected amount as entered in the application form by applicants. It is therefore probable that the projected amount and the actual amount invested vary considerably, and the actual distribution of establishments according to amount of capital investment may differ considerably from that indicated by industrial registration records. However, it is the case that small scale sole proprietorships form the large majority as indicated by registration records.

- (5) Very few enterprises are found to be well managed by Omani national entrepreneurs or by Omani national managerial staffs. Omanization of the private sector leaves something yet to be desired both qualitatively and quantitatively.
- (6) Manufacturing businesses are rarely linked with each other through a system of division of work. The only case of such linkage we found in the field study was a lime brick manufacturer. The raw materials of lime brick are sand and limestone powder. Limestone powder is made of quarried limestone and sand is collected from Wadi (dried river beds). These two processes were connected by an inside-enterprise subcontracting system.

No linkage system has been observed so far other than this case. The main reasons could be:

- . The history of industrialization is very short.
- . The majority of establishments are small scale and there are few large scale factories with relatively large amounts of capital.
- . Almost all manufacturing processes in use are very simple, especially in carpentry, steelwork and

concrete block and brick manufacturing. These industries do not have any room to introduce subcontracting systems.

- (7) In many types of industry, a virtual monopoly/duopoly by one or two manufacturers can often be identified when industries are finely classified. However disclosure of statistical data of this kind might present serious problems, especially in private sector.

3.4.3 Overview of the Traditional Handicraft Sector

The system of industrial registration in Oman as administered by the Ministry of Commerce and Industry does not include the handicraft sector because of the definition of industries to be registered.

According to the International Standard Industrial Classification (ISIC) however, the handicraft sector should be categorized for inclusion in the manufacturing sector, and therefore it was intended to investigate the status of the handicraft sector in Oman to determine whether or not the handicraft sector should be included in industrial statistics.

Data available from administrative institutions for the traditional handicraft sector is extremely limited because this sector is not covered by the current industrial registration system administered by the Ministry of Commerce and Industry.

Insofar as the study conducted by the Study Team is concerned, the contribution of the handicraft sector to the national economy in terms of employment and/or products is considered minimal. Results of the Survey are summarized as follows:

(1) Manufacturing of traditional handicraft articles

The Ministry of National Heritage and Culture indirectly supports activities of manufacturers of traditional handicraft articles through purchase of their products so that traditional handicraft technique passed down through generations can be preserved.

Judging from displays within the Ministry as well as other exhibits, it is assumed that varieties of handicraft articles are limited to:

- 1) Palm tree products (these account for the majority of articles)
- 2) Hand-knit wooven fabrics (in a relatively large quantity)
- 3) Hand-woven cotton fabrics (in a relatively large quantity)
- 4) Goldwork and Silverwork (in a small quantity)
- 5) Pottery, glazed and unglazed (in a small quantity)
- 6) Traditional daggers (in a small quantity)
- 7) Miniature Dow-ships (in a small quantity)
- 8) Traditional wooden boxes (in a small quantity)

The Ministry of National Heritage and Culture appropriates an annual budget of RO 70,000 to 90,000 for the purchase of handicraft articles. It is believed to purchase approximately 90% of the total annual production. It is therefore assumed that

current production of handicraft articles is rather limited.

The Ministry of National Heritage and Culture operates three of its own factories where traditional goods are produced.

- Bahla factory (Pottery, glazed and unglazed)
- Sumail factory (Traditional fabrics)
- Sur factory (Miniature Dow-ships)

These factories are all relatively small scale, but similar factories operated by the private sector are on an even smaller scale.

The Ministry started a registration system for goldsmiths and silversmiths but so far only 28 registrations have been recorded. Conditions for the registration are:

- Capital of less than RO 20,000
- Production exclusively by Omani national craftsmen.

The Ministry also conducted a survey of traditional handicraft manufacturers in 1991 by way of distributing 13,000 questionnaires through local autonomous institutions. As of the end of October, 1991, only 60% of the distributed questionnaires had been collected, and the results have not yet been summed up. Although it was expected that an accurate profile of the traditional handicraft sector will become available, The Ministry of National Heritage and Culture is said to have discontinued the survey in view of the national census to be conducted.

(2) Handicrafts

The Ministry of Social Affairs is assisting craftsmen who make a living by producing household commodities (including craftsmen producing traditional handicraft articles). The Ministry's assistance is centered on a service to train craftsmen and in the introduction of new designs and advanced tools and mechanical means into the sector.

In 1990, the Ministry conducted a general survey of craftsmen in 3 principal areas, Batina, Dahkha and Sharqia, by distributing 600 questionnaires. Those collected so far represent the following types of handicraft activities.

Hand spinning (wool)	96
Hand weaving	86
Embroidery	122
Palm tree products	84

Total 388

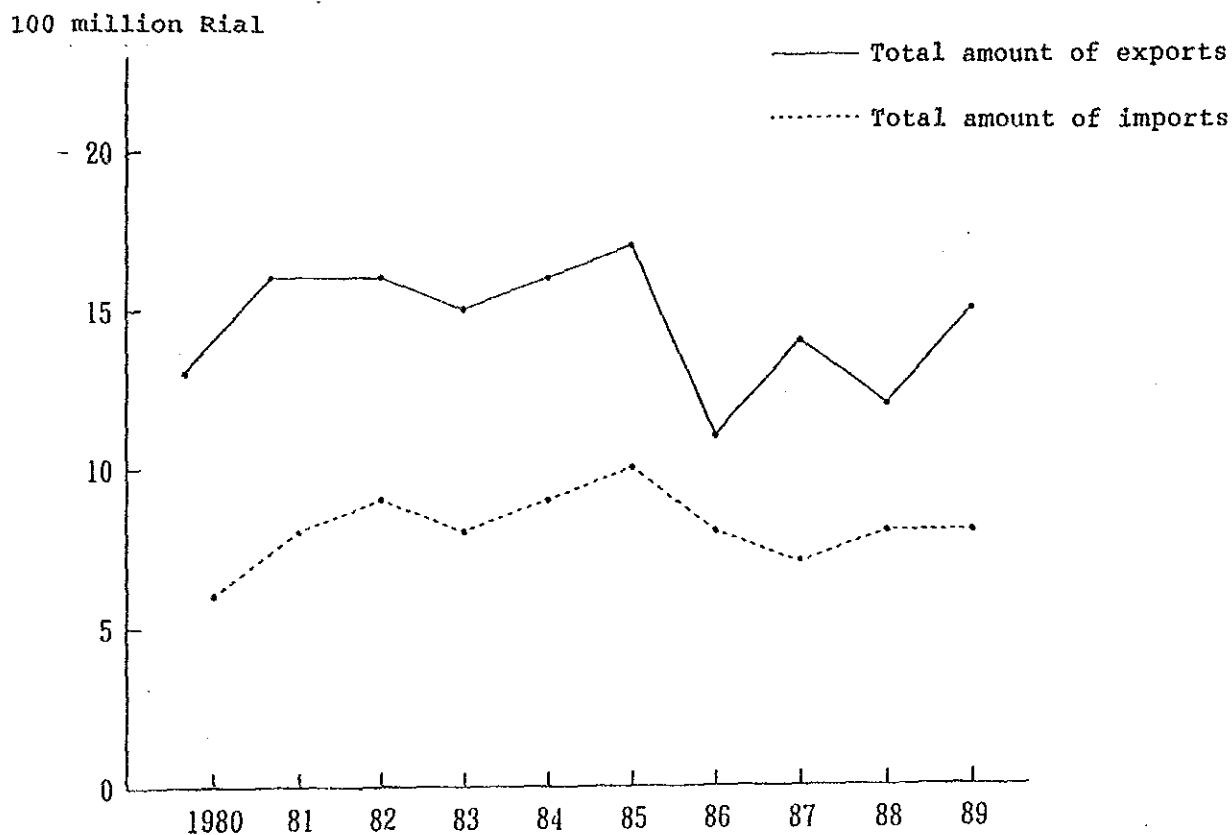
When the survey report is made public, which is expected within the foreseeable future, it may provide a rather rare opportunity to learn about the profile of the handicraft sector.

3.5 Exports, Imports and Competitiveness

The total value of exports from the Sultanate of Oman in 1989 was 1,512.2 million Rial Omani (hereinafter denoted MRO in this section), while the value of imports was 868.0 MRO. Foreign trade in 1989 showed a favorable balance of 644.2 MRO. A favorable balance was stably maintained throughout the 1980s, except in 1986 when price of crude oil fell.

The following figure shows recorded imports and exports.

Fig. 3.5.1 Recorded Imports & Exports



3.5.1 Exports

Export of crude oil earned 1,344.4 MRO in 1989, accounting for 88.9% of total exports. The remaining 11.1% consisted of vehicles (55.1 MRO, of which 30.8 MRO represents passenger cars re-exported to such countries as the U.A.E.), base metals and articles thereof (28.2 MRO, of which 19.1 MRO represents copper exported to Taiwan (9.4 MRO) and Saudi Arabia

(7.6 MRO)), and live animals and animal products (24.9 MRO, of which 13.8 MRO represents frozen fish and shrimp exported to Korea, the U.A.E., the U.S.A., and Saudi Arabia).

3.5.2 Imports

The leading category of imported goods was machinery and mechanical appliances, accounting for 180.7 MRO. Within that category, air conditioners (9.8 MRO), refrigerators (3.3 MRO), table fans (1.3 MRO), domestic washing machines (1.3 MRO), radio and TV sets (5.2 MRO), and video equipment (2.9 MRO) were appliances for everyday use. Other sub-categories were computers (3.5 MRO) used for office business, boring and sinking machines (5.6 MRO) and pumps (3.2 MRO) used for water.

The second largest category of imports was vehicles, accounting for 133.1 MRO, of which imported passenger cars accounted for 82.9 MRO. Japanese passenger cars represented 62% of those imported. If trucks and their parts were included, the Japanese ratio would be even higher. However, re-export of imported passenger cars amounted to 30.8 MRO (of which re-exports to the U.A.E. totaled 29.2 MRO).

The third largest category of imports was base metals and articles thereof, accounting for 78.7 MRO. Iron and steel and articles thereof, and aluminum and articles thereof marked 50.6 MRO and 20.2 MRO respectively. Imports of copper totaled only 0.9 MRO because of domestic production. Exports of refined copper and articles thereof totaled 20.1 MRO.

The fourth largest category of imports was edible plant products, accounting for 66.2 MRO. Imported wheat and rice totaled 12.7 MRO and 12.2 MRO

respectively. Also, fruits, which are favored by the Omani people, accounted for 12.4 MRO.

The fifth largest category of imports was live animals and animal products, accounting for 56.2 MRO. Imported dairy products, meat of bovine animals and live sheep totaled 26.1, 22.0, and 5.2 MRO respectively. Also, live camels imported for camel racing accounted for 1.2 MRO.

Imported items in categories six to ten were products of chemical or allied industries (50.1 MRO), prepared foodstuffs, beverages, etc. (44.5 MRO), textiles and textile articles (41.8 MRO), precious metals and stones, pearls, etc. and articles thereof (40.1 MRO), and optical or photographic instruments, clocks, watches, etc. (26.7 MRO).

3.5.3 The International Competitiveness of Products

(1) Crude oil

Exports of crude oil represent approximately 90% of total exports, though the percentage appears to have been declining during recent years. Major export markets are Japan, the Republic of Korea, Taiwan and other Asian countries which together account for approximately 90% of total crude oil exports. Export competitiveness is favorably affected by the geographical advantages of Oman. As Oman is located outside the Arabian Gulf, Oman enjoys a relatively more advantageous position than other Mid-East oil exporting countries in view of potential risks posed by Iran-Iraq and other Mid-East conflicts.

Oman would hardly be affected by a blockade of the Arabian Gulf. It would be able to continue stable supply of crude oil under war conditions during which

demand for crude oil should increase, and hence can guarantee long-term crude oil supply contracts in preparation for future risks.

Crude oil export prices have been linked to international spot market prices since 1985. The pricing policy of Oman is generally considered reasonable so that it has come to be regarded as a reference for world market prices, together with Dubai crude oil prices. The oil it exports is of type A.P.I.34 with a high gasoline yield ratio, matching current market needs.

(2) Copper and other minerals

An electrolytic refining plant began operation in 1983 in the vicinity of Sohar. The project was undertaken by the Oman Mining Company in 1978 as a joint venture drawing 99% of its capital from the government and 1% from Oman Development Bank Limited. The plant has an approximate annual production of 15,000 tons of copper. The plant has a redundant production capacity of 5,000 tons out of 20,000 tons of annual production capacity. International competitiveness of the copper produced in Oman is not high enough to compete in a slow international market place. Development of other mineral resources is on the way but the outlook for the future is not particularly optimistic.

(3) Fishery products and agricultural products

The coastline of Oman is 1,700km, harboring 10,000 fishing boats and 12,000 fishermen who catch 160,000 tons of fish. Fish caught in abundance are high grade tuna, Spanish mackerel, sea bream, and lobster. Exports to European countries such as France, Italy and Greece, as well as to Japan, have been increasing

rapidly, remaining competitive with other Mid-East producers. On the other hand, agricultural production is limited in quantity with a relatively small distribution market cannot successfully compete with imports.

3.6 Roles of Industrial Statistics

As was mentioned earlier, the Omani government is implementing various measures to encourage the development of industries and is therefore urgently in need of industrial statistics in order to review impact of the measures already implemented and to plan more effective measures.

Concrete examples of how to utilize industrial statistics are:

- To classify industries into those which are in need of governmental assistance in terms of capital investment and those which are self-supporting by having been able to substantially contribute to the national economy, having already established conditions required to support themselves. This will enable them to take a second look into the program of governmental assistance in terms of capital investment.
- To identify segments of business with a high bankruptcy failure rate after having made capital investment in order to review the effectiveness of the current industrial registration system.
- To monitor by way of industrial statistics the level of employment of expatriate workers and their economical weight.

- To monitor the ratio between indigenous raw materials and those imported for input into manufacture.

Furthermore, the private sector in Oman which consists primarily of medium and small scale establishments is not capable of collecting macroeconomic information of market trend by itself and this is necessary for introducing marketable products and developing prospective businesses.

In view of the above, there is an urgent need for administrative government agencies to establish such an Industrial Statistics Information Center not only for their own use but also in order to provide timely statistical information to the private sector which is in need of such information.

CHAPTER 4. THE NEED FOR INDUSTRIAL STATISTICS AND THE STATISTICAL SURVEY ENVIRONMENT

4.1 The Need for Industrial Statistics

At present, the only industry related data sources available to statistics users are the industrial registration records and the expatriate labor clearance data files. However, the registration data is not sufficiently up-to-date to give a comprehensive picture of the Omani manufacturing industrial sector, since the renewal system does not work effectively for updating the outdated registration data.

Meanwhile, the expatriate labor clearance data file, despite its better annual renewal system, does not contain a rich variety of data when viewed from the industrial statistics point of view.

The survey data collected by the Directorate General of National Statistics from sample establishments is biased to a small number of large scale enterprises and to those located in Muscat capital area. Thus it has limited value as reliable industrial statistics data.

Consequently, the need of users for reliable statistical data on the industrial sector can only be satisfied by a newly planned, comprehensive Industrial Statistical Survey.

In Oman, regular users of industrial statistics data have unilaterally relied upon governmental agencies. Hence, potential needs for statistical data by the private sector, although believed to exist, have not yet surfaced.

On the whole, users' expectations and needs for the comprehensive industrial statistical data to come are not expected to go beyond rather standardized data, but may include certain indigenous characteristics specific to the Omani situation. The needs for statistical data are summarized as follows.

(1) General needs

- 1) Accurate statistical data on manufacturing establishments is required for measurement of the national economy (SNA). So far, only limited statistical data, limited both quantitatively and qualitatively, have been available.
- 2) Needs exist to correctly identify the comprehensive status and structure of manufacturing industry's input and output, as well as impact of governmental policies and response of industry to governmental policies.
- 3) The general future trend is towards more frequent surveys of trends in production, inventory, productivity and prices in the manufacturing industry. Industrial statistical data are expected to provide a framework (universe) useful for determining representative sampling of establishments to be surveyed.

(2) Detailed needs

- 1) To statistically identify indigenously available raw materials for use in production.
- 2) To statistically identify finished goods for export and for local consumption, and to statistically identify export oriented processing industries.

- 3) To statistically identify the extent of Omanization in various production resources, in particular in capital and manpower.
- 4) To identify the situation of enterprises which are supported by governmental loans.
- 5) To identify the pattern of distribution of manufacturing establishments in capital area and in rural areas.
- 6) To analyze the value added by various sectors, classified by type of industry, region, and size of establishment.
- 7) To statistically supplement items of data which reflect market trends.
- 8) To identify trends in demand for electricity, water and fuel required for manufacturing activities.
- 9) To identify the fixed capital owned by enterprises as a representative indicator of capital investment in manufacturing activities.
- 10) To consult entrepreneurs adequately for establishing and managing medium and small scale manufacturing establishment by using industrial statistical data.

In short, the current understanding of and needs for industrial statistics by Omani government officials do not go beyond a general and standard level and no requirement has surfaced for statistical planning specific to Oman. Once statistical survey programs have been implemented and a statistics data book has been

produced however, the requirements and demands of statistics users should become more detailed and realistic.

4.2 The Statistical Survey Environment

Implementation of the Industrial Statistical Survey Program will be affected, more or less, by the social environment including: availability of institutional and human resources; positive or negative attitudes of the respondents (proprietors or managers of establishments); the extent of bookkeeping or business record keeping; possible coordination between various statistical and administrative data files controlled and maintained by different governmental agencies; and the address system and the extent of dispersion of establishments.

This section summarizes the environment's affect on the Statistical Survey.

4.2.1 Legal and Institutional Basis

The Statistics Law is the sole law currently in effect in the Sultanate of Oman to govern a statistical survey. The Statistics Law stipulates, among other things, the following points.

- (1) The tasks to be fulfilled and duties to be carried out by the Directorate General of National Statistics
- (2) The duty to keep all collected data strictly confidential
- (3) Prohibition of the use of all collected data for any purpose other than statistics

- (4) The duty of governmental agencies, enterprises and individuals to provide all data other than that related to national security to the governmental agencies in charge of implementing the statistical survey
- (5) Penalties chargeable to those who violate the above-mentioned duties, in order to ensure implementation of a smooth and accurate statistical survey
- (6) Stipulations concerning statistical surveys other than those under the jurisdiction of the Directorate General of National Statistics
 - Stipulations concerning statistical surveys carried out by individual governmental agencies
 - Stipulations concerning marketing surveys taken by enterprises and establishments and publication of the results thereof

4.2.2 Availability of Institutional and Human Resources

A key governmental organization for the forthcoming Industrial Statistical Survey must be the "Industrial Statistics Information Center" which is to be newly organized out of existing "Industrial Statistics Unit" of the Ministry of Commerce and Industry. The Industrial Statistics Unit is the sole existing organization and can be a nucleus for the establishment of future Industrial Statistics Information Center. A systematic program of education and training, together with reinforcement of existing staff, is expected to carry the burden of transforming the Unit.

Also, the Ministry of Commerce and Industry has regional offices, in addition to the Directorate

General of Commerce and Industry in Southern Region, distributed in all of country's geographic regions where population is concentrated and industrial establishments are found. The review by the study team seemed to indicate that the current institutional functions, organization, and capacities of those regional offices are definitely limited and unrelated to the implementation of an industrial statistical survey program. It is impossible to expect the regional offices to satisfactorily conduct statistical survey as required within their regions, without any training, if and when they are requested to do so by the Center.

It should be recognized however that the regional offices are in the best position to know the status of manufacturing establishments dispersed and operating within the region of their jurisdiction. The extent of power and authority sanctioned to regional offices is gradually being expanded under a process of decentralization of the administrative organization. Consequently, direct participation of regional offices in the implementation of the comprehensive industrial statistical survey program is indispensable for the success of forthcoming Industrial Statistical Survey.

No redundant reserve to supply the number of field enumerators that may be required for conducting the Statistical Survey is found in any existing governmental institution or any other related institutions. Though a program does exist to mobilize about 4,000 enumerators consisting of Qaboos University students and teachers of primary and preparatory schools for conducting the National Census survey scheduled in 1993, it was not possible to confirm how detailed the plan would be during this study. The number of people required for the

Industrial Statistical Survey is fewer than may be required for the National Census survey, as discussed later, and the required human resources reserve may be much smaller than what may be required for the National Census survey. No difficulty is foreseen in securing human resources as long as appropriate administrative steps are taken.

4.2.3 Attitude of Respondents and the Extent of their Bookkeeping and Business Record Keeping

The study was conducted in as many manufacturing establishments as possible to evaluate their record keeping practices, emphasizing in particular small scale establishments which are supposed to be generally inefficient in keeping business records.

Results of the study are as follows.

- (1) On the whole, key personnel at surveyed establishments responded favorably to the study team's approach and assured us that they would cooperate with the forthcoming Industrial Statistical Survey to be conducted by the Ministry of Commerce and Industry.

The question is not resolved, however, merely by the goodwill of respondents. Small scale manufacturing establishments, which form the majority of the establishments, generally have no full-time working managers. It was rather exceptional that the study team was able to interview so many managers of small scale manufacturing establishments without previously confirmed appointments.

It is quite possible that field interviews of managers will have to be preceded by visits to setup and confirm interview appointments. It may be

necessary to visit establishments 3 - 4 times before manager interviews are completed.

- (2) A typical small scale establishment is operated by one proprietor and three to four expatriate workers; office business record files consist only of invoices and receipts.

It should not be difficult to imagine that under those circumstances getting accurate figures for total annual production or other aspects of management performance could be a time consuming process. It is therefore easy to see that the handling of these small scale establishments will have a serious impact on the duration and accuracy of the survey.

- (3) The field study discovered that very few establishments have ever produced financial reports in the past. However, many expressed their readiness to produce financial reports by the end of fiscal 1992 in preparation for the implementation of the company income tax system. The general trend would thus be favorable for the forthcoming Statistical Survey. However, it is not clear to get information on ledger by product required for the statistical survey.

4.2.4 Status of Computerization in Oman

- (1) Computers have been put to large scale use in Oman only since five or six years ago, primarily by government agencies and major enterprises such as banks. Those institutions are mainly using general purpose medium size computers and mini-computers.

The use of personal computers is becoming pervasive, primarily for business transactions. The curriculum

of computer schools located in Muscat around the use of software for tabulated calculations or data base, thus encouraging pervasive use of personal computers.

No official organization nor association yet exists for computer users, software houses or computer vendors; consequently no official statistics are available with respect to the utilization of computers. Trade statistics show that the value of information related imports was RO 0.5 million in 1987, increasing to RO 1.39 million in 1990 and RO 3.35 million in 1991, clearly indicating a rapidly increasing demand for computers. Telephone circuits for computer data telecommunication are primarily dedicated lines, and those are used mostly by large scale enterprises such as banks and government agencies.

According to General Telecommunication Organization (GTO), which is in charge of operating the telephone system and telecommunication circuits, the number of circuits currently used for data telecommunication is no greater than about 630. However, GTO has announced that high speed data transmission circuits (64Kbps, 2Mbps) will be available in 1991. In addition, packet-switching network service, beginning by the end of 1991, was also announced. The Omani government is in the process of establishing the infrastructure required to develop a computerization network in the near future.

(2) Status of the utilization of computers by the Ministry of Commerce and Industry

The Ministry of Commerce and Industry established its own Computer Department in order to promote ministerial computerization using general purpose mini-computers. The Department's staff currently

consists of nine members including one project leader, one system analyst, four programmers and three miscellaneous staff members. There are nine software systems being developed or operated by the Department including a commercial registration system, an industrial registration system, an agent information system, a personnel affairs and payroll system, a project evaluation/loan evaluation system and three systems of miscellaneous characters. Various quarters of the Ministry have requested that the Department develop systems for them, hence it is quite busily occupied by trying to cope with those requests in a timely manner.

The Department intends to promote decentralized computer processing as its future program.

All ministerial transactions are currently processed collectively by the Computer Department. Computers will be installed in the various other departments, making them responsible for processing their own transactions. As a part of the programme, computers will be installed in regional offices to process commercial registrations within individual regions. It is expected that installation of computers in Regional offices will be completed in 1992.

4.2.5 Existing Governmental Statistics and the Program of Reinforcement

The Statistical Year Book, published by the Development Council, carries all available governmental statistics. Besides the Year Book, there exist only a very few governmental statistics publications, such as the "Quarterly Bulletin on Main Economic Indicators" published by the Development Council and "Foreign Trade Statistics" put out by the Royal Oman Police.

Various kinds of records and data are collected by the individual ministries as a result of their activities, such as licensing, registration, issuing permits and so on. However, those source data are directly compiled and published by the ministries themselves. In addition, according to the statistics law, individual governmental agencies shall supply copies of results of statistics to the Directorate General of National Statistics.

However, the Ministry of Defense and other public security agencies are in principle exempt from obligation to disclose data in their hands. Customs data held by the Royal Oman Police are not exempt.

The principal statistical survey programs planned by Omani governmental agencies include the following.

- (1) Comprehensive National Census program administered by the Directorate General of National Statistics, Directorate of Population Survey

The first national census in Oman is scheduled for implementation in 1993. Preparatory work by the Directorate General of National Statistics of the Development Council, including restructuring of its own internal organization, is under way, and a new Royal Decree concerning implementation of the National Census Program has been issued.

The Development Council signed an agreement with UNDP at the end of 1991 with respect to financial and technical assistance to the National Census Program.

(2) Annual Statistical Survey of Industrial Establishments by the Directorate General of National Statistics, Directorate of Economy and Finance

The Survey has been under way since 1990. The primary objective of the Survey is to collect industrial establishment data that can be used in measurement of the national accounts.

As of now however, it is planned to collect data on industrial establishments to be used for more comprehensive objectives. The questionnaire being used for the survey is quite comprehensive and detailed, following the "Recommendation of the United Nations concerning Industrial Statistics (1983)" in every respect. During the survey conducted in 1991, the questionnaire was distributed to a sampling of 300 establishments of relatively large scale, and 200 questionnaires were collected. Visits to sampled establishments were conducted by staff in the direct employ of the Directorate General of National Statistics. From 1992 onward, the survey is expected to come under the jurisdiction of the Directorate of Survey which is to be newly organized within the Directorate General of National Statistics.

No coordination has been made by the Consultative Committee for Statistical Surveys so far, and it is expected that the statistical tables will be made public through the Directorate of Survey.

(3) Agricultural Census Program administered by the Ministry of Agriculture and Fisheries

The Ministry of Agriculture and Fisheries' Directorate of Statistics is expected to implement a second agricultural census program in 1992. A two and a half year period is scheduled for the survey.

The census will be conducted comprehensively by a private consulting company under contract to the Ministry of Agriculture and Fisheries. During the survey, staff of the Directorate of Agricultural Statistics will be given training so that they can directly conduct a future survey of the same kind by themselves. A steering committee has been established within the Ministry in preparation for and for internal coordination of the Survey.

The Directorate of Agricultural Statistics is on its way to develop itself into a national organization capable of implementing an agricultural statistical survey program. At present, ten statistics specialists and 20 statistical office staff are assigned to regional offices under the supervision of the Directorate of Agricultural Statistics located in the capital. The Ministry of Agriculture and Fisheries plans to publish agricultural statistics data by itself, and as of now the Ministry is independent of coordination by the Consultative Committee for Statistics.

Table 4-2-1 summarizes the status of governmental statistics.

Table 4-2-1 Existing Governmental Statistics and Programs of Reinforcement

Governmental Statistics	Data collection	Publication	Other Notes
(1) Trade Statistics			
* Foreign Trade Statistics	By Royal Oman Police Department of Customs Based on Invoices and packing lists	Independently published by Royal Oman Police	HS code; coding by traders can be increased to 8-digits.
* Quarterly Bulletin on Foreign Trade Statistics	ditto	Through Development Council every three months	Data are transferred to Development Council by magnetic tapes. Petroleum-production is excluded.
(2) Labor Statistics			
* Monthly Statistical Bulletin	Based on Expatriate Labor Card Data System of Ministry of Labor and Vocational Training and Industrial Registration data of MCI	Through Development Council monthly statistical Bulletin and Oman Statistical Year Book	Employment of Omanis in private sector is not clear.
(3) Statistics on Establishments			
* Annual statistics of manufacturing establishments	Data is collected by Directorate General of National Statistics, Directorate of Economy and Finance by the survey of sampled large scale establishments	Not published	
* Industrial Establishment Registration System of MCI	Based on Industrial Establishment Registration records Transferred to Development Council (Yearly)	Through Development Council's Year Book Glance on Industrial in Oman	
(4) Agricultural Census	Every 5 years	Through Development Council's Year Book	
(5) Statistics on Household Economy	Development Council samples randomly households to be surveyed		Irregular survey of randomly sampled households

4.2.6 Other Governmental Statistics and Administrative Data Files

Governmental statistics and administrative data files that have some relation to the industrial statistics are as follows:

- Commercial Registration, Industrial Licenses and Registration (controlled by the Ministry of Commerce and Industry).
- Application for Approval of Expatriate Laborer and Labor Card system (controlled by the Ministry of Labor and Vocational Training).
- Import/Export Statistics (controlled by the Royal Oman Police).
- National census (planned by the Development Council, Directorate General of National Statistics) (census of population, households, and enterprises)

Appropriate mutual coordination is required for working with statistics, data files and the forthcoming industrial statistical data to prevent unnecessary duplication of data and to maintain proper linkage and comparability.

In fact, study of possible coordination among these statistics systems has been just started by two committees in Oman, one being the Consultative Committee for Statistics sponsored by the Development Council, and the other being the Industrial Statistics Steering Committee sponsored by the Ministry of Commerce and Industry.

(1) The Consultative Committee for Statistics

The committee, which was organized in 1991 under the jurisdiction of the Development Council, consists of representatives from the Development Council, the Ministry of Commerce and Industry and seven other ministries, the Muscat Municipality, the Royal Oman Police, the Central Bank, the Chamber of Commerce and Industry and Sultan Qaboos University.

The committee started to operate quite recently and the actual case of coordinating activities it has undertaken are not known.

(2) The Steering Committee in relation to the Industrial Statistics System

The Committee was organized in June, 1991 within the Ministry of Commerce and Industry in order to coordinate and link the industrial statistics system, soon to be established in Oman. There will be statistical and administrative files concerning the manufacturing industry and products under the jurisdiction of ministries other than the Ministry of Commerce and Industry. The Committee consists of representatives at the departmental director level from the Ministry of Commerce and Industry, the Royal Oman Police, the Ministry of Labor and Vocational Training, the Chamber of Commerce and Industry and the Directorate General of National Statistics of the Development Council.

The Committee will follow the progress of planning for the industrial statistics system and will discuss and resolve any and all problems presented to it for coordination.

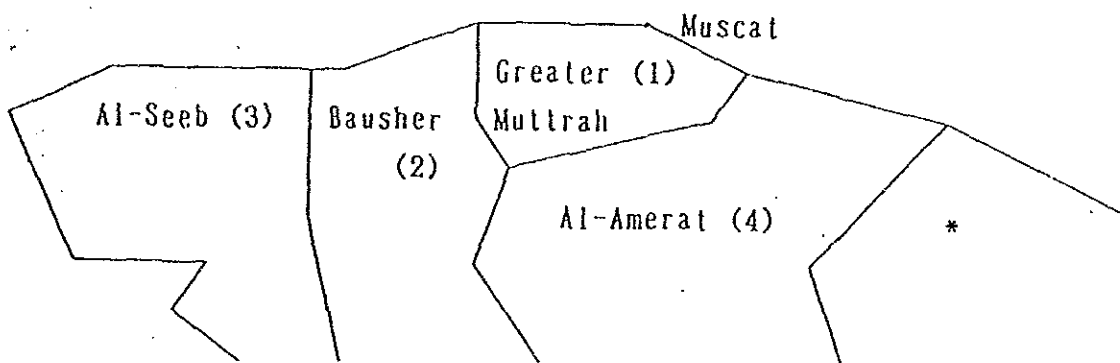
4.2.7 Building Addresses and Maps

Correct building addresses and accurate maps of areas to be surveyed are indispensable for conducting a statistical survey. They are useful for subdividing the areas to be surveyed and for locating the establishments to be visited.

Institution of an address system, together with building and road maps, is complete in the Muscat capital area, but no address system has yet been introduced in other regions of Oman. Certain maps drawn up by regional offices of the Ministry of Housing for use in planning new towns can be utilized as the basic maps for conducting the industrial statistical survey.

(1) Address system

- 1) The Muscat capital area is divided into four Municipal Directorates, each of which is given a regional number from 1 to 4.



* Quriyat is scheduled to be integrated into this system in not too distant future.

- 2) Each municipal directorate is subdivided into up to 99 blocks which are separated from each other by roads and hills. The block number (3 digits) is a combination of block serial number and district number.

Example:

Block serial number	District number	-> Block number
4 ---	2 ---	204 -----
25 ---	1 ---	125 -----

Number of blocks in each municipal directorate is as follows.

Greater Muttrah	72
Bausher	65
Al-Seeb	62
Al-Amerat	25
<hr/>	
Total	224

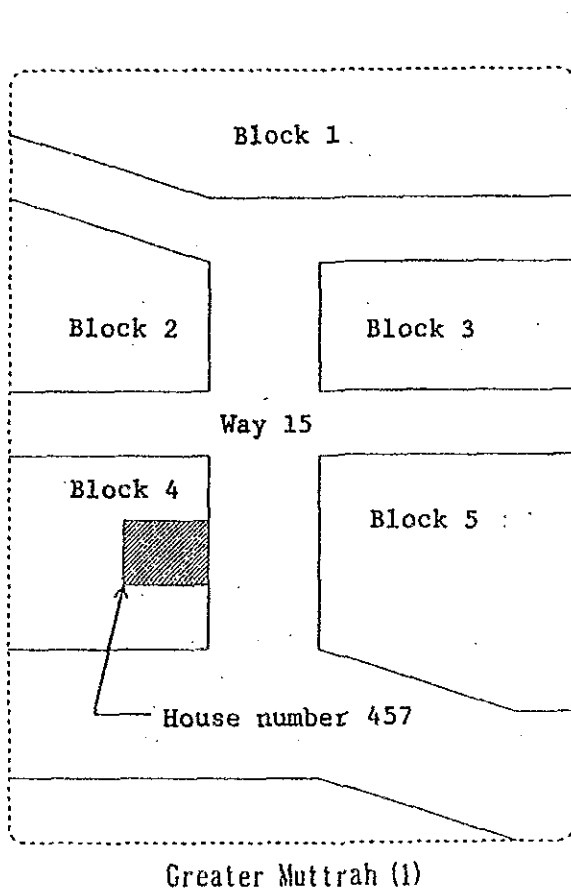
- 3) Roads are classified into the four categories of "road", "street", "way", and "lane"; the origin and terminus of each are clearly defined. All roads and most streets are given names. Ways and lanes are given 2 digit serial numbers. Those numbers are combined with block numbers for use as way numbers and lane numbers.


Example:

Way or lane serial number	Block number	Way number or lane number
15 ---	204 ---	415 -----
19 ---	125 ---	2519 -----

Sign boards illustrating road names and road numbers, as well as large colored road map boards illustrating roads within the block, can be easily found in Muscat capital area.

- 4) Houses, shops and buildings are systematically numbered (1 - 4 digits) and a small sign board showing the house number is erected in the vicinity of each house entrance. Each unit of an apartment building and each shop in a building are also given numbers corresponding to the floor and its position on the floor.
- 5) Addresses are written in the following fashion.



 House address:

457 WAY 415
105 GREATER MUTTRAH
SULTANATE OF OMAN

Interpretation of address:

- * Municipal Directorate is Greater Muttrah.
- * Block number is 104 (a combination of District number and Block serial number).
- * Way number is 415 (way 15 in block 4).
- * House number is 457.

(2) Building and road maps

Detailed building and road maps of the Muscat capital area are available which combine aerial photographs with the above-mentioned address system. The outline of buildings, house numbers, block numbers and configuration, direction and names/numbers of roads can all be identified from these maps.

The Muscat Municipality Office keeps approximately 800 maps covering the four Municipal Directorates. (Refer to Appendix 5)

(3) Legal status of and future plans for address system

Use of the address system is not mandatory under any legal measure such as a Royal Decree. The Muscat Municipal Office encourages use of the address system and offers necessary guidance. The Muscat Municipality Office is currently promoting a building information system, while certain governmental agencies including the Royal Police, the Ministry of Education and Youth and the Ministry of Electricity and Water are also using that building information system.

No plan exists to utilize the address system for the mail service. The address system is expected to be applied to undeveloped districts of the Muscat capital area after completion of development, and to other regions only after the success of the system has been demonstrated in the Muscat capital area.

(4) Accuracy and reliability of addresses and maps

A complete survey was conducted, in a joint effort with the Omani counterpart agency and temporary enumerators, in one block in Greater Muttrah in order

to confirm the accuracy and reliability of the above-mentioned maps, and to transfer the know-how necessary to produce directory lists of establishments required for the Industrial Statistical Survey.

During the Survey, the sample block was completely surveyed in order to check accuracy with which house numbers shown on buildings correspond to those shown on the maps. In the case of industrial establishments, buildings shown on the maps were given identification numbers, and industry name and type were recorded in the control sheet prepared beforehand.

Results of the survey confirm that the maps are sufficiently accurate and can be referred to for producing the necessary directory lists of establishments for the industrial statistical survey or for visiting establishments.

4.2.8 The Pattern of Distribution of the Establishments

The general trend in Oman is to separate factories from residential and commercial districts and relocate them in dedicated industrial districts.

In the Muscat capital area, most manufacturing establishments have been relocated in special purpose manufacturing blocks, leaving only a small number of small scale bakeries and print shops still located in residential and commercial blocks.

A similar trend is taking place in rural regions and is expected to progress even further. Nationwide, the pattern of distribution of manufacturing establishments is not towards dispersion.

Because the pattern of population distribution in Oman is dependent upon the distribution of water resources, people are concentrated in dotted villages, and manufacturing establishments are located in those same dotted villages. Such a pattern of location is favorable for a survey of the total number of establishments.

However, as mentioned earlier, since no address system is in use in rural regions, it is rather difficult to visit specific establishments.

CHAPTER 5. ISSUES CONCERNING THE STATISTICAL SURVEY

This chapter discusses issues to be resolved in order to implement the Statistical Survey.

5.1 Institutional Aspects

5.1.1 Reinforcement of Legal Basis

In the Sultanate of Oman, the Statistics Law is currently the sole legal basis as stipulated in section 4.2.1.

The law includes no provisions for the detailed administrative procedures that may be required in order to plan the industrial statistical survey. It is therefore necessary to issue an additional Ministerial Decree and/or legal actions to define such administrative procedural details as may be required to implement the planned survey, as will be discussed later in Section 7.6.

5.1.2 Position of Industrial Statistics Information Center to be Organized within the Ministry of Commerce and Industry

The study, for planning and establishment of the Industrial Statistics Information Center, was conducted jointly by the study team and the Industrial Statistics Unit of the Ministry of Commerce and Industry, Directorate General of Industry, which is the Omani counterpart agency.

Though it appears certain that the Industrial Statistics Unit, after having completed its duty as a preparatory body for the Industrial Statistics

Information Center, will eventually be integrated into the Center, whether the Center will remain as a part of the Ministry of Commerce and Industry, Directorate General of Industry, or will be upgraded to an independent organization, or will be positioned as a staff organization attached to the Minister of Commerce and Industry can not be determined simply by consideration of its functions.

For the time being, the Directorate General of Industry, the counterpart agency, is believed to favor organizing the Center within the Directorate General of Industry in consideration of practical, administrative and organizational aspects.

Although this choice is the best one for the time being, the Center should be upgraded to higher than directorate status, possibly as a consultative staff attached to the Minister of Commerce and Industry, in the next stage of implementing industrial statistical survey or planning commercial statistical survey.

5.1.3 Regional Offices of the Ministry of Commerce and Industry

It is indispensable to enlist the participation of the regional offices of the Ministry of Commerce and Industry in the Statistical Survey. It is necessary to request cooperation of those offices in finding the human resources available for enumerators in each region, as early as conveniently possible, in confirmation of the policy of the Ministry of Commerce and Industry. The regional offices are engaged in a process of expanding the extent of their power over regional industrial registrations, which are currently under their jurisdiction.

5.2 Statistical Planning

5.2.1 Subject of the Survey

(1) Scope

No problem is foreseen in identifying the "manufacturing industry" as the subject of the Survey. Whether to adopt current definitions/practices as used in the industrial registration system, or to extend the scope in line with the internationally accepted notion remains to be seen. A representative example of the problem is the case of handicrafts (primarily traditional handicraft production): whether or not handicrafts are included would have a considerable impact on the volume of survey work. As described in the preceding chapter, the current definition used by the Omani industrial registration system does not cover handicrafts. Nor are handicrafts included in the jurisdiction of the Ministry of Commerce and Industry. They are under the jurisdiction of the Ministry of National Heritage and Culture and partially under the jurisdiction of the Ministry of Social Affairs and Labor. Accumulation of administrative data is expected to commence soon.

Inclusion of manual industries and traditional handicraft manufacturers into the Industrial Statistical Survey should be delayed for the time being. This is because value of production does not affect on statistical results so much although they have large number of establishments and because of avoiding duplication with surveys by other Ministries. However, three establishments operated by the government using mechanical means to produce these articles should be included, though they are not yet included in the industrial registration system. (refer to 3.4.3) i.e. Ceramic factory in

Bahla, traditional fabric factory in Sumail and miniature dow ships factory in Sur.

(2) Directory of establishments

Though it is necessary to prepare a directory of establishments before conducting any industrial statistical survey, the sole data source available at the moment is the industrial registration data. As is well known, however, the industrial registration data is believed to have many shortcomings in its coverage of establishments and the up-to-dateness of its data, especially those concerning small scale establishments, since it lacks an effective data renewal system. The Industrial Statistical Survey program, if and when implemented, will produce a complete and updated directory.

In Oman, since small scale establishments are generally operated by only a few workers with extremely simple equipment and tools, these establishments can easily suspend or terminate operations depending on the demand trend for their products. Therefore, they are not a stable target for statistical survey and the matter presents a very serious problem for the future maintenance of a directory list.

A systematic method of maintaining the directory list, if established, would alleviate a considerable burden placed upon enumerators in conducting yearly statistical survey.

(3) Identification of manufacturing industry

In Oman, the manufacturing industry is legally defined, and industrial registration is carried out in accordance with that definition. In theoretical

terms, no problem exists regarding the identification of manufacturing industry. However, in an actual statistical survey, guided by an incomplete directory list, many establishments not included in the directory list would be identified during field enumeration. Individual enumerators will be obliged to judge whether or not those establishments ought to be included.

The type of judgment most likely to cause confusion for enumerators is the distinction between repair work (part of the service industry) and manufacturing work. To avoid this confusion, it is important to train enumerators by way of concrete examples (refer to 3.2.2 (2)-3)) so that they will be able to make a correct judgment.

5.3 Data Collection

5.3.1 Survey Frequency

The manufacturing industry in Oman, which is the subject of the industrial statistical system, has not been in existence for long. Many establishments are of small scale, and their business activities are still unstable so that they are quite likely, year by year, to undergo changes in response to the condition of national economy and trends in market demand. For this reason, if the interval between industrial statistical surveys is unreasonably long (say, more than 2 years), the data will soon become out of date and will not fulfill the purpose of the industrial statistical system nor fully satisfy the needs of users.

On the other hand, in Oman, no firm base for monthly or quarterly statistical surveys is yet available.

Consequently, it would be best to conduct industrial statistical surveys every year.

5.3.2 Supply of Enumerators

The Ministry of Commerce and Industry and other government agencies do not have sufficient redundant human resources to furnish enumerators in large numbers. Possible methods of mobilizing enumerators in large numbers may include recruitment of volunteers from teachers of elementary and preparatory schools situated in the region, or from students of vocational training school during a school vacation period. It would be desirable to choose the time of the survey in order to suit the convenience of establishments to be surveyed, avoiding Ramadan period or the vacation season for business managers, rather than to try to coincide with a school vacation period.

It is not appropriate to recruit students as enumerators, due to their age and vocational experience.

It is anticipated that mobilization of enumerators will be most difficult in Muscat capital area. In that area, there is no choice but to begin the survey by mobilizing enumerators from multiple sources and to establish a system of enumerator registration in order to upgrade number and quality of enumerators through gradual training and accumulation of experience.

5.3.3 Lack of Address Markings and Difficulty in the Search for Establishments

It is obvious that although a poor address system is a major factor downgrading efficiency in full scale survey, future improvement is not altogether hopeless.

It can be observed that systematic numbering signs are being assigned to and displayed on roads and houses in increasing numbers in Muscat capital area, although those numbers have not yet been introduced into the address declaration system used for industrial registration or any other registrations.

Because statistical survey planners have little knowledge regarding the new address system, the administrative authority responsible and their policy for its extension, planning for utilization of the new address system in statistical surveys is not yet well under way.

The agencies in charge of implementing the statistical survey should pay more attention to the development of address system and not spare any effort to actively utilize the most up-to-date records of the agencies in charge (The Muscat Municipality Office, the Ministry of Housing etc.).

It is also to be hoped that above-mentioned new address system will be utilized for industrial registration under the jurisdiction of the Ministry of Commerce and Industry.

5.3.4 Enumeration Maps

At present, maps available for the industrial statistical survey, are block maps (believed to total

approximately 800) published and controlled by the Muscat Municipality. It has been also confirmed that the regional offices of the Ministry of Housing are using detailed maps for land utilization planning in certain regions other than Muscat area. However, detailed maps are not always available in every region.

Enumerators will be required to prepare detailed sketches during their survey in the areas where no detailed maps are available. In general, rural towns and villages have few roads and buildings are not congested. To prepare sketches is considered relatively easy and not overly burdensome for enumerators.

5.3.5 Anticipated Delay in the Filling-Out of Questionnaires by Establishments

Many establishments, in particular those of small scale, are not always cooperative in returning filled-out questionnaires because their bookkeeping is not always adequate and they often find it burdensome. The fact that the person responsible for completing the form is not always present in many small scale establishments may also result in delay in returning questionnaires. It is therefore necessary to recruit enumerators who are capable of effectively urging quick return of questionnaires. It is also necessary to review the design of questionnaires and more detailed instruction for respondents.

5.3.6 Reliability of Entry

Though data is obtainable with considerable accuracy with respect to employment, sales amount, investment cost and consumption of utilities, other data is

often not very accurate even when made available, especially so in the case of small scale establishments. Care should be taken in choosing the data collection items to take into consideration the fact that data so collected and summed up might go alone all by itself.

Enumerators should be required to thoroughly check and examine filled out questionnaires when they have been submitted.

It is predicted, however, that completeness of bookkeeping will be encouraged by implementation of the business income tax scheduled to be collected from 1993 onward, favorably affecting the industrial statistical survey.

5.3.7 Efficiency of Survey Activities

The field study was conducted together with part time enumerators by distribution, collection, check and examination of questionnaires through visiting establishment. This experience shows efficiency of survey activities is significantly affected by methods to control the behavior of enumerators. It is necessary, in addition to providing manuals for enumerators (Appendix 12), work procedures (Appendix 11) and management records (directory list (refer to table 6.8.2), control record (refer to 7.3.2 (2))), to structure an organizational hierarchy for the management and control of enumerators in order to oversee every enumerator in direct contact with establishments, to ensure the efficiency and rationality of survey activities.

5.3.8 Language

The basic principle of recruiting Omani national enumerators only might result in difficulty in communicating with expatriates in charge of establishments. Expatriate managers and clerks could justify delay in submission of questionnaires by reason of lack of communication with Omani national owners (who are often absentee owners). It is often found that enumerators justify insufficient explanation of questionnaires by reason of not being able to interview Omani national owners. Accordingly, use of bilingual (English and Arabic) questionnaires and instruction for respondent, and advance notification to absentee owners, are necessary.

5.4 Data Processing

(1) Computer system staffs

In Oman, most computer engineers working in private companies, including computer vendors, are expatriates. Among other reasons, the fact that utilization of computers in Oman is still in an incipient stage would explain the phenomenon.

In the computer department of a governmental agency it is not easy to recruit computer engineers domestically, and they have problems training their own staff because of limited means of education and training for general purpose computer.

The Development Council sometimes dispatches their staff to training courses sponsored by JICA or the United Nations. The Ministry of Commerce and Industry computer department primarily depends on an on-the-job-training (OJT) program for the training of

their own staff.

(2) System development environment

Oman Central Bank, one of the general purpose computer users, focus on how to utilize readily available softwares rather than on in-house development of systems tailored to their particular needs. This may be explained by the scarcity of engineers required for system development.

Tutors in computer training schools are a typical example: most of them are expatriates invited only for a short term and provided with accommodations.

The cost to hire an expatriate computer engineer ranges from RO 1,000 a month for a programmer or system analyst in a software house to RO 2,500 a month for a system analyst or system engineer, it is rather higher than the average salaries in Oman.

(3) Computer staff in the center

In building up a computer system within the center to examine, sum up and analyze industrial statistical survey data it will be extremely difficult to secure computer engineers as regular staff for the Center because, as above described, majority of computer engineers working in the country are expatriates and human resources in this field are definitely scarce. As the current staff of the counterpart agency can only manipulate personal computers at best, it will be extremely difficult for the Center to independently develop software of its own and to operate and manage computer systems.

Considering the current situation, it is necessary to have the technical cooperation of the Computer

Department within the Ministry of Commerce and Industry, and to utilize its computer systems in order to build a statistics data processing system. The Computer Department has already developed a commercial registration system and an industrial registration system and is engaged in operating and managing those computer systems.

Furthermore, even if the department computer systems are not usable, it will be mandatory to obtain some form of assistance from the Computer Department of the Ministry to solve problems related to data processing.

5.5 Publication

Results of the Industrial Statistical Survey are to be published as the Industrial Statistical Tables. In many industrial segments in Oman, the number of establishments encompassed in a segment is limited. If the number of establishments belonging to a certain industrial classification is no greater than one, all information concerning that establishment would be disclosed. If the number of establishments is two, one establishment could learn details about the other by deducting its own figures from those of the industrial classification as a whole. It is therefore necessary to protect confidentiality by not publishing totalized statistics for the segments encompassing only one or two establishments.

There are a considerable number of industrial segments supporting only one or two establishments in Oman, primarily due to the small domestic market.

The Year Book published by the Development Council primarily gives macro-industrial data. The need to protect confidentiality of statistical data has never been discussed in Oman.

However, collection and publication of detailed micro-data, if and when implemented, would encourage users of statistical data to become more interested in micro-analysis. Thus the statistical agency should discuss the principle of confidentiality.

CHAPTER 6. DRAFT PLAN FOR THE INDUSTRIAL STATISTICS INFORMATION CENTER

As was already mentioned in Chapter 4, the Omani government is implementing various measures to encourage industrial development. The need is growing for an industrial statistical system capable of providing whatever data may be required to evaluate the effectiveness of those industrial development measures and plan more effective policies, by reviewing the results of economic activities. At the same time, the private manufacturing sector consists primarily of small and medium scale enterprises that are not capable of collecting information on macroeconomic trends by themselves, and thus find it difficult to embark new manufacturing businesses and markets, attract capital investment or generally expand their businesses. Hence government agencies in charge of policy planning urgently need to establish an Industrial Statistics Information Center not only for their own statistical needs, but also to provide information to private enterprises.

This chapter describes the framework and the fundamental functional elements required for the Industrial Statistics Information Center (hereinafter called the "Center"), such as planning, implementation, collection and processing of data, review, and publications of statistical survey.

The principal work of importance to be done by the Center is to carry out the industrial statistical survey. The need will eventually arise to implement a commercial statistical survey as well. The experience gained in carrying out the industrial statistical survey will be applicable to establishing a commercial statistical survey. Discussion will therefore be made pertaining to the industrial statistical survey.

6.1 Positioning the Center and the Roles

6.1.1 Position of the Center

The Industrial Statistics Information Center is the central agency in charge of various statistical surveys to be administered by the Ministry of Commerce and Industry. It mediates the flow of information from statistical subject units to statistical users.

Figure 6.1.1 illustrates the position of the Center relative to statistical units and statistics users.

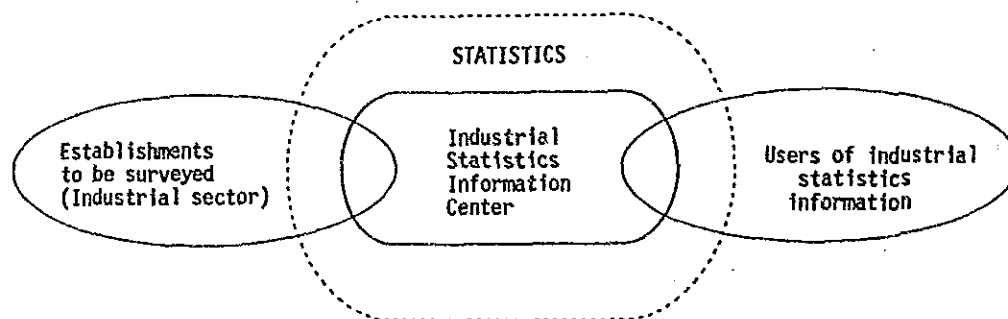


Fig. 6.1.1 Position of the Center

6.1.2 Role of the Center

Roles anticipated to be played by the Center and the route of information flow are shown in Table 6.1.1 "Role of the Center" and Fig. 6.1.2 "Statistics Information Flow."

Table 6.1.1 Role of the Center

Organization	Characteristics	Roles to be played and contents
Establishments to be surveyed	Target of industrial statistical survey	To provide data for industrial statistics
Industrial Statistics Information Center	Implementing agency of industrial statistical survey	To collect and analyze above-mentioned data and to tabulate and publish industrial statistics
Users of industrial statistics information	Users of industrial statistic information	Governmental organizations including the Ministry of Commerce and Industry, and business community organizations representing the private sector and establishments to be surveyed.

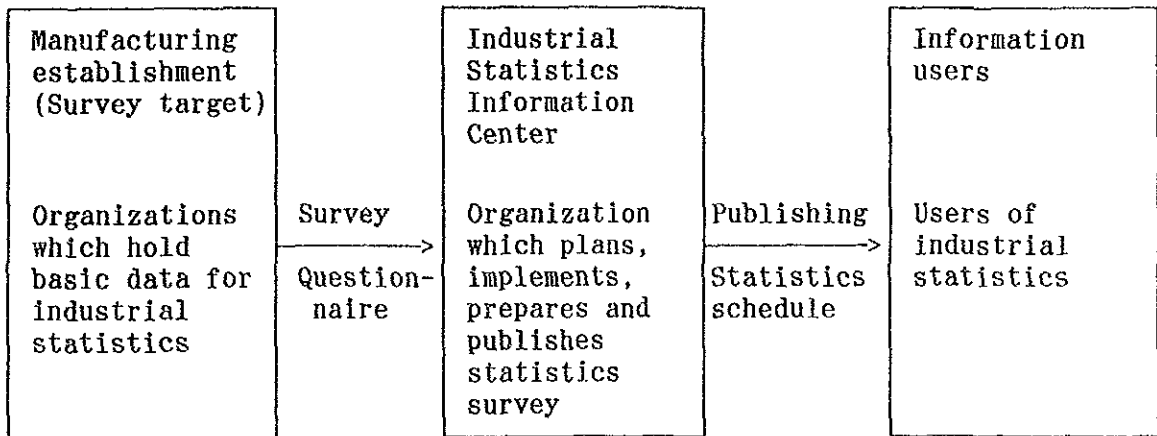


Fig. 6.1.2 Statistics Information Flow

6.2 Functions of the Center

- (1) The basic functions of the Center include planning and drafting of the statistical survey, implementation of the survey, summing and processing collected data and publication of industrial statistics, which are itemized in Table 6.2.1 "Basic Functions of the Center."

Table 6.2.1 Basic Functions of the Center

Basic functions	Overview of basic functions
1 Industrial statistics planning and drafting	To produce plans for and design of statistical survey and plans for the implementation of statistical survey including design of statistical survey questionnaires and industrial statistical tables.
2 Field surveys	To implement surveys using prescribed methods; to collect data entered into questionnaire from establishments and input data for statistical processing.
3 Examining and summing statistical survey data	To examine and sum up input data by using computers, and process statistical data.
4 Analyzing survey results	To analyze statistical survey results obtained and prepare them for publication.
5 Publishing survey results	To tabulate survey results and publish them as industrial statistical survey reports.
6 Accumulating statistics data	To compare statistical data with that of preceding years
7 Classifying industrial classifications	To clarify industrial classifications and commodity classification codes which correspond to the purposes of statistical surveys and coordinate them among related ministries.
8 Collecting statistical information other than industrial statistics	To collect information on import/export statistics and other statistics related to industrial statistics.
9 Providing education/training to personnel involved in statistical survey	To provide education/training regarding statistical surveys to enumerators and Center staff, and also to provide education/training to people other than the Center staff such as survey target organization personnel and users of the statistics.

(2) Functional relationships between statistics information suppliers, the Center and information users, and flow of information through those parties are summarized in Fig. 6.2.2.

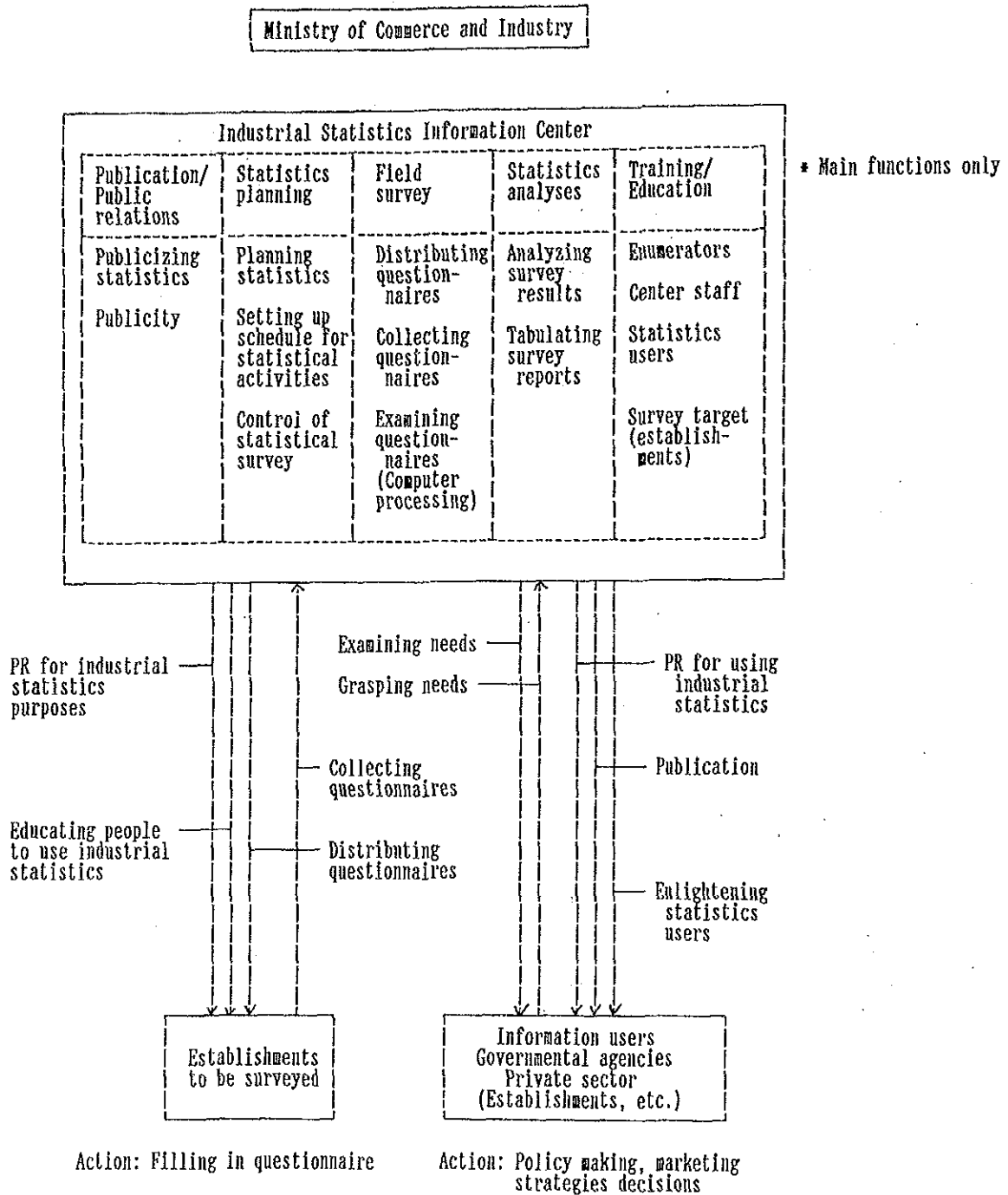


Fig. 6.2.1 Functional Structure of Industrial Statistics Information Center

6.3 Organization of the Center and Related Organizations

6.3.1 Organization of the Center

The Center organization will be positioned within the Directorate General of Industry. The operation of the industrial statistical survey as described in the preceding section (6.2 Functions of the Center) cannot be carried out solely within the organization of the Center itself. It is therefore necessary that the industrial statistical survey be implemented by coordinating the following functions with related organizations.

- (1) Coordination required for the implementation of field survey

In order to comprehensively implement the industrial statistical field survey, it is necessary that coordination be made between the Center, the Directorate General of Commerce and Industry in the southern region and the regional offices under the jurisdiction of Diwan Affairs. In particular, coordination regarding recruiting and training of enumerators is necessary so that the survey can be conducted comprehensively, with distribution, collection and examination of questionnaires disseminated throughout all regions.

- (2) Recruitment and employment of enumerators

Recruitment and employment of enumerators falls under the jurisdiction of the Department of Personnel Affairs. The Center is requested to take the necessary actions to request employment of enumerators by showing the following items to the Department of Personnel Affairs.

- * Number of enumerators required in the Muscat region and by each regional office
- * Qualification and experience required for enumerators
- * Timing and period of employment

(3) Industrial statistical data processing

The Center needs technical support from the Computer Department under the jurisdiction of Diwan Affairs for the development and maintenance of application softwares required for industrial statistical system.

Fig. 6.3.1 illustrates organization of the Center and the system of coordination reflecting the three above-mentioned items.

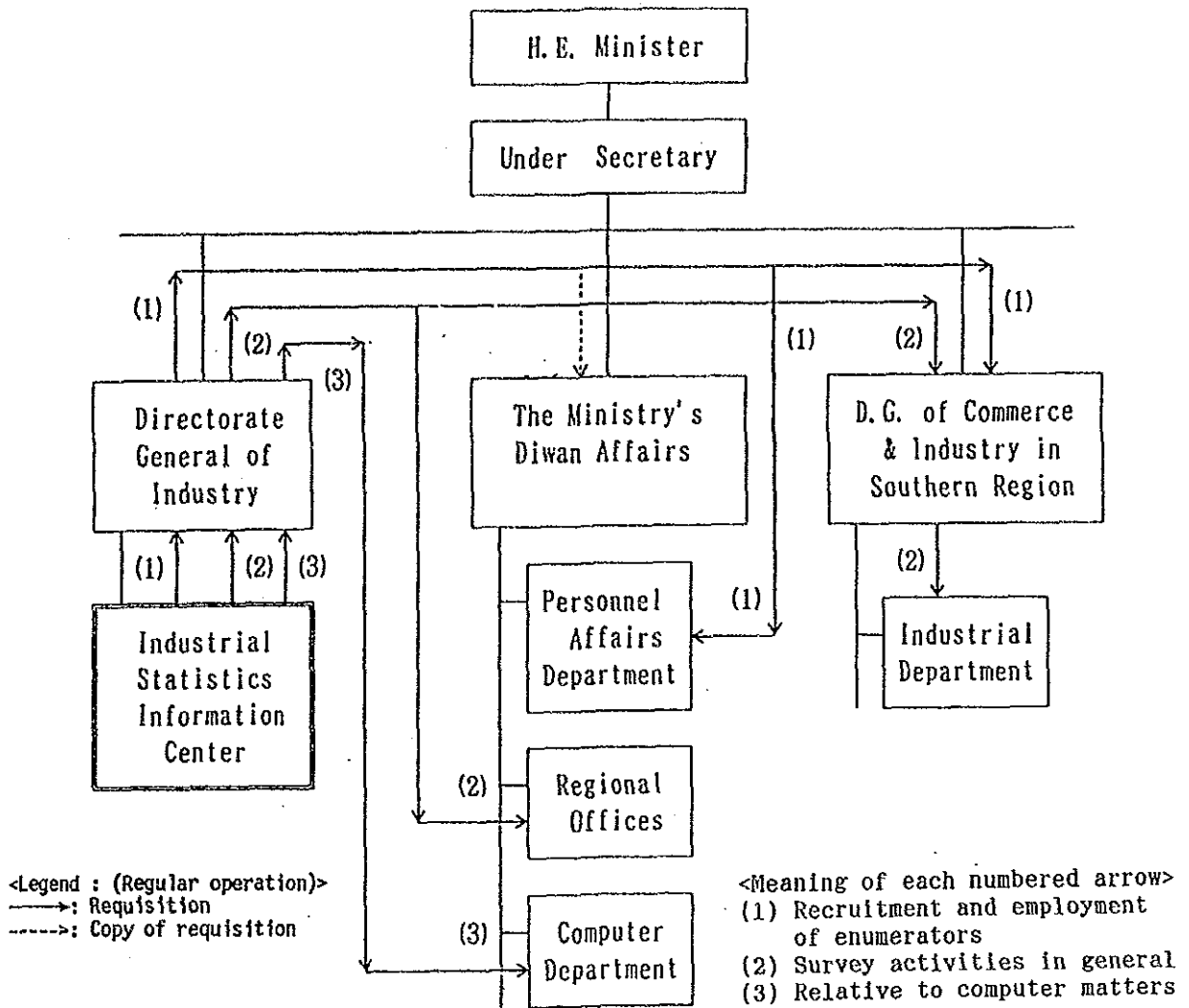


Fig. 6.3.1 Organization of the Center and Coordination System reflecting relations with other organizations in conducting statistical survey

6.3.2 Functions of Regional Offices

Regional offices (and organizations in charge of the field survey in the Muscat capital area) are in charge of the five Center functions mentioned below and shall conduct the survey in coordination with the Center.

(1) Conducting survey activities

- * Collection of up-dated information concerning directory of establishments to be surveyed

- * Distribution, explanation and collection of questionnaires

(2) Management and control of enumerators

(3) Examining contents of collected questionnaires

(4) Updating computer directory of establishments to be surveyed and entering data from collected questionnaires (in future)

(5) Communicating and exchanging information with the Center

6.3.3 Internal Organization and Division of Duties of the Center

Duties of the Center are divided and carried out by internal organization units. Division of duties is illustrated in Table 6.3.1.

Table 6.3.1 Internal Organization of the Center and Division of Duties

Functional unit		Duty
Center head		(1) Long term business planning (2) Negotiation with external organizations (3) Management and control of the Center
Planning/Control		(1) Business planning/Budgeting (2) Preparation of regulations/rules (3) Inspection/Auditing of businesses
Publication/ Public Relation Section		(1) Publication of statistical survey results (2) Preparation of public relations materials and implementation of public relation activities (3) Issue of various publications such as reports
Education/Training		(1) Planning and implementation of training (2) Those to be trained: enumerators, center staff, survey targets, users, staff from regional offices
Statistical Survey	Survey planning	(1) Planning and implementation of annual survey (2) Design of questionnaires, statistics and clarification of statistics classification (3) Planning of survey methods and preparation of survey manuals
	Survey schedule	
	Statistical survey	(1) Requisition of employment, appointment, training, management of enumerators (2) Preparation of list of establishments to be surveyed (3) Examination/summing up of questionnaires (4) Implementation of survey in Muscat region
	Result analysis	(1) Analysis of statistical survey results (2) Tabulation of statistical tables
Computer Processing		(1) Data input (questionnaires, directory of establishments) (2) Preparation of statistics and directory of establishments