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GUIDELINES FOR THE DEVELOPMENT OF LIBRARY AND
INFORMATION SERVICES IN DEVELOPING COUNTRIES WITH
SPECIAL REFERENCE TO IRAQ

BY

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A B S T R A C T

The development of any country is regarded as the function of the availability, organisation and utilization of its resources. Information has come to be widely recognised as a resource as valuable as other resources of matter, energy and human skill. This recognition is evident through the attention given by the countries in the developed areas of the world to the collection, organisation and utilization of information. The result as one can witness now is the establishment and maintenance in these countries of advanced library and information services, where sophisticated technology (e.g. computers and other electronic devices) is being applied. Since developing countries like Iraq, with which we are especially concerned, are undergoing a development process and almost all of them have been adopting a planning procedure as an instrument of policy in their own development, the availability, organisation and utilization of information is essential for them. The only way to meet this is by ensuring the availability of efficient infrastructures that perform the functions of collecting, organising and retrieving information on a nationwide basis. Therefore, developing countries need to: recognise information as an essential component in the individual's, and society's development, question the deficient and fragmented state of their library and information services, recognise the deficiencies of these services and take the measures necessary for their development.

This study demonstrates the value of information in development, reviews the activities concerned with collecting, organising and retrieving information, questions the present state of library and information services in developing countries with special reference to Iraq, highlights their deficiencies and the factors contributing to these deficiencies, and provides guidelines for solution. This study was based on an extensive literature survey, personal interviews, visits and on-site observations.

I N T R O D U C T I O N

A. Statement of the Problem

Information has come to be widely recognised as a national and international resource as valuable as other resources of energy, matter and human skill. The development of any country is regarded as the function of the availability, organisation and utilization of its resources. Since developing countries such as Iraq, with which we are especially concerned, are going through a process of development, and since almost all of them have been adopting a planning procedure as an instrument of policy in their national development, the need for the availability, organisation and utilization of information is essential. Unless this need is fully met, development plans may be poor and the results achieved by implementing such plans may differ from the target aims and expectations. The only way to meet this need is to ensure the availability of efficient infrastructures that perform the functions of collecting, organising and retrieving information. Therefore, the deficient and fragmented state of library and information services in developing countries needs to be questioned, their inadequacies ^{need to} be recognised and measures taken on a nationwide basis to bring about a fundamental change in the provision of library and information services throughout each country.

B. Purpose of the Study

The purpose of this study is to:

- demonstrate the value of information in development and the activities concerned with its collection, organisation and retrieval, on the national and international levels;

- examine and evaluate the present state of library and information services in developing countries with a special emphasis on Iraq;
- identify the factors that affect the development of library and information services;
- formulate general guidelines for the development of library and information services in Iraq, which may also be useful for other countries.

C. Value of the Study

The value of this study lies in the following:

- It is the most comprehensive study carried out so far on Iraq.
- It highlights the deficiencies in the library and information services in Iraq and the factors contributing to their existence, draws the attention of the authorities concerned to them, and provides guidelines for a solution.
- It draws attention to the contribution of efficient library and information services to the national development process.
- It fills a gap in the professional literature on Iraq.
- It raises some issues which might be studied by others.

D. Data Collection Methods and Procedures

The data for this study is based on documentary information, unstructured personal interviews and on-site observations, in addition to the candidate's personal experience of his country.

To be acquainted with modern trends in library and information activities and the role information plays in the development process, a survey of published literature on the subject was conducted. A similar survey of published literature was made to obtain material on the

the general background of library and information services in developing countries and the environment in which these services operate.

To ascertain the current state of library and information services in Iraq, a three-month visit was made from August to November 1981 to collect information on current practices, problems and future developments. During this visit an exploration of published and unpublished materials, printed and unprinted records of individual library and information infrastructures and related institutions and government departments was made. Unstructured personal interviews with leading professionals, government officials, potential library and information personnel and users were conducted. Libraries of various types and the documentation and archives centres were visited for on-site observation. Ministries and other government departments were also visited to collect information needed for this study (a list of the persons interviewed and places visited is provided in Appendix 1). The data collected for this study dealt with the following:

- Background information concerning the country's geography, history, population, social and economic conditions, education, research activities and publishing;
- The origin and development of library and information services;
- Organisation, operation, collections, personnel, physical facilities and services provided in libraries of all types and documentation and archives centres;

- The level of use of information resources and services;
- Circulation policies and access systems followed;
- Laws and regulations, authorities and professional bodies concerned with the provision of library and information services;
- Problems facing the development of library and information services;
- Future developments of library and information services;
- Education and training facilities available for the supply of qualified manpower.

The data collected was sorted, summarized and analysed as it is presented in the text of this study.

CHAPTER ONE

LIBRARY AND INFORMATION SERVICES IN DEVELOPING COUNTRIES : BACKGROUND FACTORS

1.1 Introduction

The functions of libraries (whether public, school, university or special), documentation centres and national archives are in practice and should be largely defined by the social, cultural, economic and educational conditions of a given country or region. In other words, library and information services are a reflection of the various aspects of the countries concerned. Accordingly, a proper understanding of these factors is necessary before any attempt could be made for the development of library and information services.

Kotei (1) stresses this point by stating that before any attempt to study institutions of a society we should understand

...the political, economic, educational and sociological factors which brought such institutions into being and continue to give them a modus vivendi (p.249).

Shera (2) argues that the library as a societal instrument takes shape and purpose from the society and culture in which it is established. He further makes the point that in order to

...understand what the library has been and be expected to become one must first look at the nature of society and the cultural and value system that operates within it (p.42).

The Regional Seminar on Library Development in Arabic-speaking States (3, 117), Borchardt (4, p.136) and Benge (5, p.154-55), all emphasize that planning for the development of library and information services is influenced by the economic, political and cultural aspects of the

country and thus the starting point of a sound planning of these services should be a proper understanding of these aspects.

In his comparison of library development in France, the United Kingdom and the United States, Hassenforder, quoted by Kotei (1, p.250), was able to show that despite their close dimensional identities there were, in the second half of the nineteenth century, a considerable number of variable trends which conditioned their public's respective attitudes to books and libraries. These factors, everywhere, constitute a force that affects the development of library and information services either positively or negatively. In the developed countries, as pointed out by Anderson (6)

...the challenging requirements in the growth of research, and in changing educational standards, indicate a need for more systematic delineation of library and documentation services (p.159).

In the developing countries the educational systems, for instance, have expanded tremendously through the recent years. In such a situation the school library has had to compete with more urgent priorities such as securing a supply of teachers, textbooks and equipment. Usually the library ranks low in the list of these matters...

The preceding notes form the basis for the assumption that a proper understanding of the social, cultural, political, educational and economic conditions is necessary before any attempt could be made for the development of library and information services in any country. In this chapter an attempt will be made to summarize these conditions in the developing countries with which we are primarily concerned. However, it must be noted here that there is always the danger of injustice in generalization. Recognising the differences represented

by these factors in developing countries, we shall concentrate on the similarities often faced.

1.2 The Historical Factor

In the history of the world it cannot be denied that some of the present-day developing countries were masters of large areas of the world for centuries and were also the seed-bed of human civilizations. However, for various reasons, particularly the results of wars, the political scene of the world has been subject to frequent changes. Successive empires, kingdoms and even tribal groups have grown, flourished and faded. Perhaps the prime example is the Roman Empire established in the year 27B.C. (7, p.11). Despite its huge size and great power, the Roman Empire fell in 476 (8, p.19). The Sasanid Persian Empire (224-637) in the east developed but was finally overrun by the Arabs who established their empire in the seventh century. The Arab Empire declined when the Mongols invaded Baghdad in 1258, while later the Arabs came under the rule of the Ottoman Empire, except for Morocco which succeeded in maintaining its independence. At the end of the eighteenth century the western European powers overthrew the Ottoman Empire and began their invasion of the Arab region as well as many other regions (9). It seems that the West Europeans started to develop as great powers after 1500 (10, p.126) and thenceforth began their conquest of much of Africa, Asia and Latin America. As a result, the Incan and Aztec Empires of Latin America fell to the Spanish and the tribal nations in Africa and traditional empires in Asia were altered by their confrontation with

the West (11, p.5). In developing into great world powers and by controlling vast areas of the world, the West Europeans established their own empires. The prime example of these empires is the British Empire which reached its zenith in 1897 (12, p.21). However, the end of the Second World War brought the final twilight of empires after many centuries during which many empires had grown, flourished and finally ended (13, p.2). As such, the geographical and political map of the world has been subject to frequent changes since history could record. But, as Salvator and Dowling (14) point out, since the Second World War the geographical boundaries and national identities have changed more dramatically than in any other period in history (p.6).

With respect to developing countries most of which were at one time or another colonies of external powers, they began obtaining their independence after the Second World War. Some of them such as the South American countries have been politically independent since the early nineteenth century. For instance, Brazil became independent from Portugal in 1822 (15, p.39). It seems that the long-term effects of the colonial policy were creating aspirations for independence, self-determination and economic development. The education of a small number of the indigenous peoples, the injection of Western values and beliefs, the construction of transportation and armed forces, all helped to fuel the demands by the colonized peoples for fundamental political and economic changes. Besides, after the War the European powers were shattered and under pressure from new world powers, i.e. the Soviet Union and the United States. Consequently, the European

powers began to yield to the demands of the leaders of independence movements. The United States set the example when it granted full independence to the Philippines in 1946. The following year India and Pakistan achieved their independence from the British (16).

On the process of independence, Salvator and Dowling (14) state:

Once the process of independence had started, it spread with increasing speed. The United Nations has grown from 51 members in 1945 to 138 members in 1974. Of these 138 members 53 (new states) have joined since 1960 (p.6).

Latest figures show that there are now 157 Member States in the United Nations of which 113 are developing countries (17, pp.2-3). In some cases, political independence was gained by 'White' communities that continued to dominate populations of non-European origin and thus brought about a colonial situation which Goldthorpe (15) called 'internalized colonialism' (p.39), as it were, in countries like South Africa and the Southern States of the United States of America.

As a result of gaining independence, developing countries now form the majority of the United Nations family. Besides, they have formed many international and regional organisations to deal with common problems and to achieve political self-identification. The following may be taken as examples:

- Association of South East Asian Nations (ASEAN) founded in 1967.
- Economic Community of West African States (ECOWAS), founded in 1975.
- Latin American Integration Association (ALADI), founded in 1980 to replace the Latin American Free Trade Association of 1960.

- League of Arab States, founded in 1945.
- Organisation of African Unity (OAU), founded in 1963.
- Organisation of the Petroleum Exporting Countries (OPEC), founded in 1960 (17).

However, developing countries are still facing difficulties arising from the continuing economic and political involvement of the super powers in their affairs. This involvement is often called "neo-colonialism" (11, p.5). The political situation in developing countries is, in many cases, unstable and subject to frequent changes. This feature affects all walks of life in these countries, particularly national development. Moreover, political systems in these countries lack an effective administrative system. The reasons for this shortcoming are partly due to the policies of colonial powers whose rulers often refused to appoint local persons into top administrative positions.

What does the past mean to developing countries? As a matter of fact, it has two meanings - negative and positive. The negative one is that their state of underdevelopment is regarded as a consequence of colonialism which deprived these countries of historical opportunities for development. Sheneti (18) points out that most of the Arab countries have gained their independence since the Second World War. The preceding decades have been spent in efforts to obtain that independence. This means that the policy and administration of social, economic and educational activities were subject, either completely, or at least partially to foreign influence (p.219). With respect to libraries, it is only after independence that developing countries began to take interest in the establishment of such institutions. Kaungamno (19) set the following scene from an African situation:

The history of library movement in Africa is comparatively short. In 1946 when Unesco was founded there were only two independent states in Africa South Sahara. These were Ethiopia and Liberia. The rest of the continent was under colonial rule and, in fact, right up to 1955 more than four-fifths of the African population was under European rule. In 1953 when the Ibadan Seminar was organised, out of the twenty-nine librarians and educators who participated in the Seminar only eight were Africans...When the Enugu Seminar was organised in 1962 the situation in Africa was different. Africa of 1962 was no longer that of 1953. In 1962, for example, twenty-six out of thirty-seven participants were Africans (p.56).

The positive meaning is that some developing countries were, before being colonized, countries of high culture and glory. In many of these, at the present time, their history of high culture and glory plays a significant role in the aspiration and motivation for national uprising and development. For instance, as observed by Thompson(20), one cannot plan for library development in the Middle East without taking into consideration its extraordinarily rich cultural heritage (p.155). In fact it is in the Middle East where great libraries of the ancient and medieval times had developed. However, past glory should not be used as an opium or hypnosis, rather it should be used as a basis of present incentives and real hopes for the future.

To sum up, most of the developing countries were, before being independent, in one way or another under foreign domination. During this domination the social, cultural, educational and economic conditions of the peoples of these countries were completely or at least partially overlooked by the foreign rulers. This is why these conditions have lagged too far behind those in the dominating countries. It is only after independence and the establishment of national governments

that these conditions were given attention. For this reason the history of modern library movement in these countries is short. It is axiomatic that one of the major objectives of gaining independence is the improvement of the socio-economic conditions of the people. This, of course, depends on the organisation and utilization of national resources including information. As the main source of information, library and information infrastructures should be established and/or developed in every country.

1.3 The Population Factor

Throughout the two million years of man's existence on earth, his numbers have been few. When he first began to cultivate sources of food through the development of agriculture some 12,000 years ago, the estimated world population was no more than five million. In the year A.D.1, world population amounted to 250 million; in 1750 to 728 million; in 1950 to 2,486 million (21, p.129); in 1970 to 3,695 million; and in 1980 to 4,432 million. It is expected that world population will be about six billions in the year 2000 (22). Figure (1.1) shows the world population growth through history.

Figure 1.1 : World Population Growth Through History (21,22)

Year	Estimated Population (in millions)	Annual Growth Rate (%)
About 10,000 BC	5	
AD1	250	0.04
1650	545	0.04
1750	728	0.29
1800	906	0.45
1850	1,171	0.53
1900	1,608	0.65
1950	2,486	0.91
1970	3,695	1.8
1980	4,415	1.7
1990	5,241	1.6
2000	6,118	1.6

The doubling times of world population through history are shown by Todaro (21, p.130) as follows:

<u>Period</u>	<u>Doubling times(years)</u>
Appearance of man to early historical times	35,000
1650 - 1750	240
1850 - 1900	115
1930 - 1940	70
Present	35

The population growth illustrated in figure (1.1) shows that the 1950's were the milestone in the demographic development. The reason for this development was the technological advances in medicine and the spread of modern public measures throughout the world.

In short, population growth today is primarily the result of a rapid 'transition' from a long historical era characterized by high birth and death rates to one in which death rates have fallen sharply while birth rates, especially in developing countries, have not yet fallen much from their...high levels (21, p.130)..

The population of the world is unevenly distributed by geographic areas, growth rates and age structure. Figure (1.2) shows that about 73.5% of the total world population live in developing countries. By the year 2000 these countries will probably constitute more than 78% of the total population of the world while the people living in developed countries will have fallen from 26.5% to less than 22% of that total.

Figure 1.2 : Population of Developed and Developing Countries(22)

Region	Area (in thousands sq.Km)	Total Population (in millions)				Annual Growth Rate (%)			Inhabitants (per sq.Km)
		1970	1980	1990	2000	1970- 1980	1980- 1990	1990- 2000	
World	135,726	3,677	4,415	5,241	6,118	1.8	1.7	1.6	33
Developed Countries	55,358	1,075	1,170	1,249	1,328	0.8	0.7	0.6	26
Developing Countries	77,368	2,602	3,245	3,992	4,790	2.2	2.0	1.8	42

According to the age structure, the number of people under working age (below 15 years) forms 40% of the total population of developing countries as against only 27% in the developed countries (23, p.86).

The non-productive people (under 15 and over 65 years), often referred to as ^{the} 'dependency burden', constitute half of the population of these countries compared to only one-third in the developed countries. The

rural people represent 75% of the total population in developing countries compared to 34% in the developed countries (21, pp.33-34).

The trend of rapid growth of population in developing countries can be attributed to economic and religious reasons. Many parents want large families because the child labour makes a good contribution to family income. Moreover, the parents may ensure security and protection for themselves when growing old. However, the continuing rapid increase in population has its disadvantages. It eats up the gains of economic growth. Laird (24) drew attention to this point by stating that although agricultural production has continued to rise in developing countries this advantage has been completely wiped out by their much more rapid population increase (p.11). High increase in population makes it difficult for governments to provide adequate social services such as adequate food, housing, education, health, jobs, water, electricity, communications, libraries. Shaffer (25) points out that in many developing countries,

hundreds of millions of woefully wretched people - illiterate, undernourished, and destitute - are struggling desperately to keep food production ahead of increase in their numbers (p.2).

According to the United Nations, in 1980 the number of refugees in Africa was estimated at five million (50% of the total world's refugees) and it is still growing (26, p.3). In such a situation, do we expect these people to have anything to do with the needs for library and information services in their life? Maslow (27) says:

If...the organism is dominated by the physiological needs, all other needs may become simply non-existent... (p.28).

In order to reduce the problem of high population growth and favour socio-economic development, developing countries should introduce birth control measures. In fact, in many of these countries there is an interest among people in learning about birth control. In a survey carried out on five countries (Taiwan, Korea, Thailand, Tunisia, Turkey) it was found out that the people were interested in learning about family-limitation programmes (28, p.95). [The report of the Commission on International Development, 1969 (29) noted that many field surveys of parents in developing countries indicate that birth rates would be reduced to one-third if parents had the knowledge and means to plan the size of their families (p.32). These surveys indicate that there has been a lack of information on family planning and at the same time need for such information. Therefore, the provision of information tailored to the needs of the society should be ensured by the establishment of library and information infrastructures.

1.4 The Economic Factor

The vast majority of economies in developing countries are oriented towards the production and exportation of primary products. Agriculture, both subsistence and commercial, forms the principal economic activity in terms of the distribution of active population, if not in terms of its contribution to Gross National Product (GNP). The labour force engaged in agriculture in these countries amounts to 66% compared to 21% in developed countries. In terms of GNP, agriculture contributes about 31% in developing countries while in developed countries it is only 8% (21, p.34).

It is not because there is less agriculture in developed countries, but because their economies are more diversified. One major characteristic of agriculture in developing countries is that of low productivity which results from many agrarian problems such as the land tenure, salinity, methods of production, marketing arrangements. In such a situation food crises and starvation may occur. An evidence of such a disaster is the situation which developed in 1972 in the Philippines, and in 1973 and 1974 in India, Pakistan, Bangladesh, Ethiopia, Somalia and the Sahel belt of Africa, where the people who died from starvation at that period ranged between hundreds and millions (23, p.58).

Exports of developing countries - primarily raw materials, minerals and oil form between 58% and 98% of their total exports from which the bulk of their national revenues flow. Data for 1966 shows that the number of commodities going to the export trade is very limited and in some countries does not exceed a single commodity e.g. Bolivia, tin; Iraq, oil; Libya, oil; Mauritania, iron ore; which respectively accounts for 65%, 92%, 99%, 91% of their total exports (30, pp.90-91). Recently, developing countries have become aware of the significant role industry plays in the economic and in the overall national development. This awareness can be attributed to the following issues:

- a) A nation that concentrates on a limited range of primary exports may face the risk that the markets for them may have limited prospects of expansion.
- b) Industry is required to satisfy the growing demand for manufactured goods which developing countries cannot import because of balance of payment difficulties.

c) Industry is wanted for reasons of national security and pride.

d) The countries that have achieved the fastest economic growth have all done it by industrialization.

Industrialization is a lengthy process and is not easy for developing countries, especially if their present situation is compared to that of the existing industrialized European countries in the past.

Benge (31) draws attention to a number of differences which can be summarized in the following:

1. Most European countries were the beneficiaries of an imperialist economic system.
2. Developing countries are part of a world-wide economic structure within which they are obliged to operate and have no control of their destinies. *therefore*
3. In Europe, technological innovation was indigenous; it was not transferred from outside. It grew out of its own environment.
4. In Europe the industrial revolution was preceded by an agricultural revolution.
5. The European states, at the time of the industrial revolution, were already nation-states with a long intellectual history and a background of scientific enquiry (pp.15-16.)

However, when we examine the industrial reality in some of the developing countries, we note ~~an~~ important fact, namely that there is more than one type of industrial development in terms of numbers and qualities. Kobschull (16) points out that several steel mills, cement plants and textile mills have been established in China and India. Automobile assembly and shipbuilding are undertaken in Brazil. In Mexico and Chile, among others, a number of medium size industries have been established. In Asian and African developing countries there ~~are~~ various industrial plants, but the largest of these are those for the processing of raw materials in preparation for exports (p.8).

Looking at the world from the economic point of view, we can see two groups of countries : a small group (the developed) which is quite well-off and enjoying a settled pattern of economic growth; and a larger group (the developing) which is "subsisting on only 20% of the world income" (32, p.277). Moreover, even the small income is so maldistributed internally as to leave the majority of the population in poverty. Kebschull (16) noted that in Brazil, for example, over 60% of the national wealth is held by less than 20% of the population. The enormous wealth of some Asian families and Middle Eastern aristocrats contrasts sharply with the poverty of the masses in their societies (p.3). On this basis, and by a

host of indicators the economic gap between the more- and the less-developed countries seems to be increasing (32, p.277).

In addition, it can be seen that even within the developing countries there are, as D'Aeth (13) put it, three groups in terms of their potential economic growth : a) 'fast growth' countries which export oil and minerals; b) 'moderate growth' countries which have per capita income over 200 U.S. dollars a year; and c) 'negative growth' countries that have per capita income less than 200 U.S. dollars a year (p.45).

The most striking features of economies in developing countries are that of 'dependence' and 'dualism'.

Dependence is a conditioning situation in which the economies of one group of countries are conditioned by the development and expansion of others (33, p.76).

The implication of this is that economic growth is oriented towards the outside and that the locally controlled economy may have no chance to grow. Dualism refers to the co-existence of modern and traditional

patterns of production. Schumacher (34) states that:

In the dual economy of a typical developing country, we may find 15% of the population in the modern sector, mainly confined to one or two big cities. The other 85% exists in the rural areas and small towns (p.153).

As a matter of fact, developing countries have realised that they are economically under-developed and that economic development is essential for their own overall national development. For this reason one can see that the aspirations for economic development have been very strong among the peoples and governments of these countries. Consequently massive economic development plans have been launched in many countries and noticeable results have been achieved. For instance, among the developing countries that have enjoyed rapid economic development are South Korea, Taiwan, HongKong, Malaysia, the Ivory Coast, Kenya, Brazil, Colombia, Venezuela, and the oil states of the Middle East (35, p.13). However, the way to economic development is still long for the majority of developing countries.

Presumably, economic development of any country is entirely dependent on the efforts of its people; the informed inhabitants who are consciously and firmly mobilized to carry out economic projects and maintain their achievements. As main sources of information, library, documentation and archives infrastructures should be established and/or developed to support economic development (see Chapter two - section 2.3 - Information for Economic Development).

1.5 The Educational Factor

Human resources are the most decisive factor in the organisation and utilization of other resources - matter, energy, information - for the development of every country. It is the human being that accumulates capital, utilizes natural resources, builds social, economic and political organisations and promotes national development. On this basis, a country that seeks national development should first of all develop the skills and knowledge of its people by whom everything else may be developed. Accordingly, formal education has been taken as the main means for developing ^{the} skills and knowledge of people. This can be noticed in the fact that education has played a justifiable role in the development process of all countries. In England, as Adams and Bjork (36) observed, the beginnings of development were tied to education because the development-makers came out of ^{the} educational milieu. Besides, the population had achieved about 30% to 40% of literacy before the development process began. Later, there was a shift from home and Church education to a formal educational system geared according to the development needs (p.36). In Japan and Russia, much of the success in achieving economic growth was traced to their very large investment in education (37,p.75).

For developing countries, where aspirations for socio-economic development are high, education seems of special significance. In their colonial past, it appears that education was, for the most part, neglected by the colonial powers. It seems as if it were taken for granted that those nations would not obtain their independence and need skills and knowledge to run their countries. Horowitz (38) stresses this point by stating that:

A large majority of the people in the Third World, prior to their independence, have very little, if any, primary or secondary school training (p.56).

In the Arab region, education was ignored by the occupying powers to the extent that more than 80% of the population was still illiterate by the 1950s (39, p.75). In the Yemen People's Democratic Republic, for instance, only one school had been built outside of Aden during the British occupation, and that was just for the Sultans' children (40, p.149). Altbach and Kelly (41) perhaps best sum up the role of colonialism in education in developing countries by saying that:

Under colonialism ... the rulers are the ones who make educational decisions - who shall go to school, how long they shall go to school, what should be learned in school, what language it shall be learned in, and the parameters to which education can be part. Schools which emerged in colonies were primarily designed to serve the needs of the colonizer, not the colonized. (pp.40-41).

With independence, the inevitable change in educational objectives occurred and the consequence expansion in student numbers soon followed. This can simply be attributed to the fact that developing countries see education as the key to advancement in this world. Bengt (31) points out that:

The leaders of developing countries have rightly stressed the importance of education in the development process (p.51).

Accordingly, developing countries have sought to expand formal education at all levels to increase the numbers of students. Despite the financial limitations, these countries are spending a large part of their budgets on education. Adams and Bjork (36) state that :

Whatever the judgement against allocation of scarce resources to certain levels and types of education, the political and ideological forces (in developing countries) in favour of such extension are overwhelming (p.123).

According to the most recent educational statistics published by Unesco, there are 121 developing countries applying compulsory education (22). The expansion of education at all levels in developing countries is evidenced by the increases in student enrolment, teaching staff and expenditure during 1970-1980, as shown in figure (1.3).

Despite the growing number of students attending school, the level of illiteracy is still high in many parts of the developing countries. This is mainly due to the rapid increase in population which makes it difficult to provide education for all children - drop-outs and the large number of females kept home or leaving school at an early age. Moreover, as observed by Carceles (42), in a large number of developing countries late entrants and repeaters often inflate student enrolment ratios and partly mask the increasing number of out-of-school population (p.165). In addition to the expansion of student enrolment, developing countries are seeking to modify and promote their educational systems to make them more efficient instruments in the achievement of their national goals. This trend can be seen in the following statement made by President Julius Nyerere of Tanzania when he talked about the role of the university in a developing society.

The university in a developing society must put the emphasis of its work on subjects of immediate moment to the nation in which it exists, and it must be committed to the people of that nation and their humanistic goals ... We in poor societies can only justify expenditure on a university of any type - if it promotes real development of our

Figure 1.3 : Statistical Summary of Educational Trends in the World : 1970 - 1980 (22)

	STUDENTS					TEACHING STAFF				EXPENDITURE								
	Total Number Enrolled in all Levels (in millions)	Increase %		Distribution of Total Number by Level of Education in 1980 (%)		Percentage of Girls of Total Enrolment at all Levels		Total Number (in millions)	Increase %		Distribution of Total Number by Level of Education in 1980 (%)	Total Public Expenditure (in billions U.S. dollars)	Increase %		As % of GNP			
World	1970	1980	1970	1980	1	2	3	1970	1980	1970	1980	1	2	3	1970	1979	1970	1979
	492	641	49.4	63.4	33.4	29.6	7.1	21	28.7	36	49.6	38.2	12.3	158.3	529	234	5.4	5.6
Developed Countries	228	233	2.2	48.2	39.2	12.6	49	12.2	14.1	17	40.7	43.2	16.1	145.9	464	220	5.7	5.9
Developing Countries	264	408	54.5	72.0	24.0	3.9	40	8.8	14.6	75	58.1	33.3	8.6	12.4	65	441	3.3	4.0

people. The role of a university in a developing nation is to contribute; to give ideas, manpower and service for the furtherance of human equality, human dignity and human development (21, p.243).

Despite the efforts and policy formulation on the part of educational authorities and political leaders to modify and promote the educational systems, the educational process in the majority of developing countries still follows the traditional lecture method of presenting facts to the students, requiring their acceptance and memorization in order to pass examinations. The school programmes do not motivate the students to read beyond the sole required textbook. The teachers generally do not encourage the students to develop reading habit or guide them in the selection of their recreational reading. The teachers, moreover, lack the incentive and/or opportunity to learn more than that which they learnt themselves. The result is that many students are unable to analyse for themselves, and their standards when leaving school or university are limited to what they have learnt from the set textbook and teachers' notes. This trend in educational process is a pressing problem in developing countries. On this point Asheim(43) wrote:

The system of education in most of the developing countries places its emphasis upon unquestioning acceptance of professorial authority, and that means that books have very little to play in the process. The lecture notes and the single textbook suffice to see the student through most of his academic career, and everything about the system tends to discourage rather than to encourage the habit of reading. The texts are dull and uninviting. Outside reading is seldom assigned. Unassigned reading, if it tends to independent ideas or ideas in conflict with the class lectures, will jeopardize the student's chance to move ahead. Since advancement is based absolutely on

examinations all along the ladder from elementary school to advanced study in the university, since the examinations are designed to test the student's rote memory of the lectures rather than his knowledge of the subject...., it is the unusual student indeed who would be motivated to use the library for any other purpose than as a space in which to cram for the examinations (pp.50-51).

This statement provides a clear picture of the text-oriented curricula and how this discourages the use of libraries. This phenomenon is not exclusive to developing countries, it can also be found in some developed countries. For instance, in France, it has been observed that the long school day and the traditional methods of teaching limit the use of libraries (44, p.455). In Japan, it was found that only 20% to 30% of high school students who use libraries read library materials; others only study there (45).

On the process of education, Like(46) wrote:

Education is not a process of memorizing facts and dates, nor is merely the ability to recall the facts and dates as needed. Education is learning where to seek information that is required and knowing how to use that information once it is found (p.33).

If the educational process is so taken and put into practice, the library will be the principal agency where information is sought and provided. Therefore, in any attempt for the provision of library service in the educational institutions, the educational system should be taken into account. Otherwise, given the current situation of the educational systems in developing countries, the library can only function as a place where students read their set textbooks. Bengé(5) argues that the library cannot achieve its educational functions unless

the educational system produces the readers in the first place (p.155). In many developing countries, as pointed out by Adams and Bjork (36), considerations are being given to new curriculum, new teaching methods and the provision of new linkages between education and other institutions (p.123). Logically, linkages between education and other institutions should include library and information services (see Chapter two - section 2.4 - Information for Educational Development).

1.6 The Illiteracy Factor

Illiteracy has been one of the features of human culture since the evolution of reading and writing. It does not seem to be regarded as a problem until the nineteenth century when compulsory education was introduced in some developed countries - in the United Kingdom in 1870, in France in 1820 and in the United States in 1900 (47, p6). This indicates that these countries had realised the problems and dangers caused by illiteracy in their societies and thus started their campaigns against it. In developing countries it was not until the twentieth century when such measures began to be taken. Since its establishment in 1946, Unesco has put these measures in the priority list of its projected activities. Sir Charles Jeffries (47) embodies the significance of literacy as he states that:

The whole social, political and economic structure of modern community rests on the assumption that every citizen can communicate and be communicated with by means of the written or printed word (p.3).

Paulo Freire (48), the Brazilian educationalist, speaks of knowledge as 'food' and thus he conceives illiteracy as

...a 'poison herb' intoxicating and debilitating persons who cannot read or write (p.23).

Carter (49) portrays illiteracy as a 'great curtain' preventing people from entering the creative life of the world to which the printed word is a chart (p.80).

It is estimated that there are 800 million adult illiterates in the world. The lion's share of this total is found in developing countries - 40 million in Latin America, 50 million in the Arab countries, 143 million in Africa, and more than 500 million in Asia (50, p.1). The illiteracy rates are 23.6%, 73.0%, 73.7% and 46.8% respectively (21, p.239). The severity of illiteracy, as shown in figure (1.4), is unevenly distributed among individual countries within the regions of the developing countries and even within individual countries in terms of urban and rural areas and sex. Obviously the highest rate of illiteracy is found among the female and the rural.

Figure 1.4 : Illiteracy Rates in Selected Developing Countries(22)

Country	Total	Urban	Rural	Male	Female	Year
Africa:						
Guatemala	54.0	46.4	61.5	28.2	68.0	1973
Somalia	93.9	89.4	97.3	-	-	1980
Zimba bwe	31.2	23.5	38.7	-	-	1980
Asia:						
Afghanistan	80.0	66.8	94.2	60.9	83.5	1980
Korea(Rep.)	12.4	5.6	19.0	5.7	17.8	1970
Jordan	32.4	19.0	45.6	-	-	1976
Yemen	91.4	82.4	98.5	-	-	1980
Latim America:						
Brazil	23.9	22.0	25.7	15.6	42.4	1978
Chile	11.0	10.1	11.8	6.6	25.6	1970
El Salvador	38.0	34.5	41.1	18.0	53.0	1975

In some developing countries, the number of illiterates is increasing rather than decreasing because of their rapid population growth and the inability of educational facilities to cope with the increasing number of children. In Pakistan, for example, the number of illiterates increases more than one million every year (51, p.53). It has been revealed that of the world total of 350 million children of primary-school age, at least half have no chance of going to school (52, p.10). As we may expect, perhaps the entire number of children having no chance of going to school is found in the developing regions of the world.

Developing countries have realised the dangers resulting from illiteracy in their societies and at the same time become consciously aware of the importance of literacy in their socio-economic development. Accordingly, almost all developing countries have become actively engaged in literacy campaigns and achieved notable results. Unfortunately, in many cases, those results have been wiped out and eventually the number of illiterates tended to increase rather than decrease. The British Committee on Literacy states that:

Despite strenuous efforts in recent decades to promote literacy, the dimensions of the problem are steadily increasing...there is an enormous increase in the absolute number of adult illiterates (50, p.1).

This phenomenon may stem from two major factors: the rapid population growth and the defect in literacy campaigns. Khatoon(51) attributed the defect in literacy campaigns to four reasons:

1. Lack of motivation for the illiterate to become literate.
 2. Unsuitable administrative and organisational arrangements.
 3. Lack of suitable reading materials.
 4. Lack of proper library facilities for the new literates.
- (p.53).

The above reasons indicate that much of the success of literacy campaigns and the maintenance of their gains depends largely upon the provision of library service. Bonny (53) stresses this point by stating that:

Literacy cannot be achieved without books and other forms of reading material (and) ... cannot be maintained without reading material being available. Experience has shown us that books and other forms of reading material can only achieve maximum effectiveness when organized in good library systems (p.295).

Obviously, the library and literacy campaigns are interdependent and interactive. Each may contribute to the success and development of the other. To illustrate this relation let us see how the library played an important role in the literacy campaigns in U.S.S.R., and at the same time achieved remarkable development. Nazmudinov (54) reports that according to the 1897 general census, 76% of the population of the Russian Empire as a whole and 88% of the females were illiterates. Many of the national minorities were almost entirely illiterate. From 1920 onwards a vast campaign was launched to eliminate illiteracy. In 1923 a voluntary association 'End Literacy' was set up. The libraries began to take a more active part in the campaign against the widespread rural illiteracy, and the library organisation took forms suited to the needs of the different nationalities. The first mobile libraries went to the most isolated areas. As these library services improved, it became imperative to train local librarians. Locally-recruited staff revitalized libraries and made them more effective in the literacy campaign through talks, public readings, discussions, and use of visual aids. The 1926 general

census showed a substantial increase in the number of literates. The figures also reflected the increasing number of libraries. During 1922-1926 the number of libraries in Uzbekistan increased from 22 to 120 (44.5%), in Kazakhstan from 129 to 207 (60.4%), and in Armenia from 85 to 206 (142%). By the end of 1930s, illiteracy had largely disappeared in the national republics. This shows how closely were linked the processes of eliminating illiteracy, raising cultural standards, and developing library services for the ethnically diverse population of the Soviet Union.

1.7 The Cultural Factor

The term 'culture' has two meanings: technical and non-technical. The technical meaning has been developed by anthropologists to describe the distinctive characters of human history and existence, namely the creation of ideas, customs and material things. The non-technical meaning refers to the products of high civilization - such as literature, art and philosophy (55). In this section culture is taken to mean, as defined by Paul Sears (56),

The way in which the people in any group do things, make and use tools, get along with one another and with other groups, the words they use and the way they use them to express thoughts, and the thoughts they think... (p.43).

This anthropologists' approach to culture suggests that culture is a product of society and is acquired by individuals in social interaction. This indicates that culture mirrors society and as such societies are known and categorized by their cultures. Thus, "human groups without culture are unknown" (5, p.11).

Going back in history we can see that some of the present-day developing societies were of high culture and glory. The ancient Egyptians and Sumerians, the Hindus, the Chinese, and the medieval Arabs, all developed mighty civilizations that contributed remarkably to human cultures (10, p.20). One of the features of those cultures (i.e. the Sumerian-Babylonian-Assyrian and medieval Arab) is the development of outstanding libraries housed with vast collections representing the achievements of those cultures. A detailed consideration of these cultures and their libraries will be given in Chapter five. After their high cultures and glory, the developing regions of the world experienced a slower rate of cultural development because of wars, internal conflicts and foreign rule (see sections 1.2 and 1.5).

At present the cultural conditions of developing countries are different from any other period of their history. They are now characterized by being culturally underdeveloped because of the existence of some cultural features that are regarded in many cases as problems facing the process of national development of these countries. Although the culture of each country in the developing regions is unique in many aspects, there are some features that almost all of them share. These features can be summarized in the following:

1. The co-existence of 'modern' and 'traditional' elements in the society. These, as pointed out by Bengt (31, p.11), are apparent everywhere in material culture, represented by the simultaneous presence of modern air-conditioned buildings and mud huts, of donkeys and cows mixed up with the city traffic. The same is with ideal culture, contrasting beliefs and values co-exist inside individual heads.

2. The existence of corporate social structure which may be based on Kinship, caste, tribe, religion, race, etc. Accordingly, there are only few countries that are ethnically homogeneous (16, p.5).
3. The existence of many indigenous languages in many of these countries. In Africa, for example, the great majority of the countries are multilingual such as Uganda, Ethiopia and Nigeria (15, p.188). In Asia, an evident example for a multilingual country, is India. Language is a vital element for cultural unity or homogeneity. On the basis of linguistic unity, the Chinese, for instance, built a very powerful cultural homogeneity (57, p.269). The Arabs also enjoy the characteristic of linguistic unity and cultural homogeneity.
4. The gap between the small percentage of literate and educated and the large percentage of illiterate mass of people.
5. The gap between the few rich and the mass of the poor.
6. The gap between the small percentage of urbanised and the large percentage of rural people.
7. A centuries-old domination of society by men, which kept women in their subject role.
8. Modernization is seen as Westernization. On this concept, unfortunately modernizers in many developing countries look at the experience of the West as the example to be followed. This is dangerous because what is good for one country may not necessarily be good for the other and may result in the case of the cure being worse than the disease. An evident example of this is what happened in Iran during the reign of the Shah who went too far in westernizing his country.

9. The existence of oral culture where life style of societies is characterized by corporate conversation and discussion as the principal means of communication. In such a situation reading may not be an established habit and the written word holds no status. The above are the general features of the cultural conditions of the developing countries. However, this does not mean that all these features can be found altogether in one country. Perhaps some of them are not found in some of these countries.

What does then this cultural situation have to do with library and information services? It is axiomatic that libraries are for the literate people with an established reading habit. Where illiteracy is prevailing and reading is not an established habit, the libraries do not hold good. Moreover, the development of libraries tends to be impeded. On this point Professor Havard-Williams (58) wrote:

The oral traditions of Africa, of the Arab countries, (in spite of their devotion to the Koran), the importance of 'tradition' (in itself) in the Far East, the desire of the Brazilian above all to get to the beach, all these militate against the development of the public library or the school library (p.77).

However, the issue of social change and cultural upliftment are persisting. At present almost all developing countries have programmes attempting to modernize their societies. In recent years these countries have made considerable efforts and achieved notable results in this field. However, this has advanced much further in some areas than in others. Among the most outstanding features of modernization is the exposure of individual ways of life through education and mass media. This movement may be seen in the availability of radio

and television, newspaper circulation, school enrolment, the establishment of cultural agencies including libraries, and other similar measures. In addition, the emancipation of woman has stepped forward considerably in almost all of these countries. Developing countries are now consciously aware of the fact that social and cultural development is an essential means for the overall national development. It is axiomatic that the implementation and success of development programmes and the maintenance of their achievements rest on the shoulders of the country's citizens, the informed citizens. Accordingly, the programmes or measures for cultural upliftment should be supported by adequate library and information services to provide the planners, the workers, and the citizens with information about all relevant facts and ideas (see Chapter two - section 2.6 - Information for Social and Cultural Development).

1.8 The Publishing Factor

The printed word has been and is still the key to the creation and diffusion of knowledge, to the maintenance of the intellectual life and to the development of advanced science and technology. Books, periodicals and other reading materials are central to the educational system, to research and to the creation of cultural heritage. Regardless of the advances that have taken place in the diffusion of information, the printed word is still, for the most part, the principal medium of communication. Publishing, therefore, stands as a significant agent for disseminating knowledge effectively in a world known to be of rapid advances in all ranges of human activities. At present the volume of

materials being published day by day or minute by minute all over the world is breathtaking (see Chapter three - section 3.2 - Information Production and Growth).

In the developing regions, however, many parts have depended exclusively on the oral tradition in the transfer of information - historical, technical and social (6, p.163). At present, in developing countries where campaigns have been launched for socio-economic and cultural development, where books and other reading materials are highly needed for education and other intellectual purposes, publishing is of special importance. However, as Altbach (59) states:

The basic fact of the book situation in developing countries is one of shortage - there are simply not enough books to meet the vastly growing needs of these countries. But the problem is not simply one of printing vast quantities of books (difficult enough given the facilities available in many countries), but is the much more complicated process of ensuring that the right kind of books get written on pertinent subjects, in the appropriate languages, and making these books available at a price which individuals (and institutions) can afford (59, p.459).

This statement indicates that developing countries are in shortage of the hardware (equipment) and the software (material to be published) of publishing industry. The fact of this shortage is stressed by Perumbulavil (60) as he states that

Despite massive amounts of money, energy and time spent in the fight against illiteracy, developing countries were still (in 1972) alarmingly ill-equipped to cope with the 'book famine' which threatened to jeopardise the education of their people and subsequently retard their national progress (p.32).

This book famine can be seen in the fact that developing countries, which constitute 73% of the total world population, produce a small share of the world total of book production. According to the most recent statistics published by Unesco (22), developing countries produced only 144,500 titles (19.9%) of a world total of 726,500 titles published in 1980. The developed countries produced 582,000 titles (80% of the world total). The number of titles per million inhabitants in the world, developed and developing countries is 164, 500 and 44 respectively (see figure 1.5).

Figure 1.5 Book Production in 1980.

Area	No. of Book Titles Published	Distribution of Book Production (%)	No. of Titles per Million Inhabitants
World	726,500	100	164
Developed Countries	582,000	80.1	500
Developing Countries	144,500	19.9	44

Figure (1.5) shows that the bulk of the world intellectual production is dominated by the developed countries. Does this give the impression that the developing nations are less mentally capable than the developed nations? Arensberg and Niehoff (10) say:

Anthropological research has shown that there are no groups of people in the world that differ systematically in any kind of mental endowment. To the contrary, the evidence indicates that all groups of men have about the same range of distribution of human abilities (p.20).

Besides, it is to the developing areas (e.g. Egypt, China, Mesopotamia, now Iraq) that one turns to the invention of writing and the manufacturing of paper which entered Western Europe through Spain when the Arabs learnt of and brought it from the Chinese in the eighth century (61). The large libraries of ancient and medieval Iraq, which were housed with vast collections of materials on various fields of knowledge, indicate the flourishing intellectual production of the people in this area. Therefore, the present gap in intellectual product is not a matter of mental differences. According to Altbach(62), it has been caused by a complex range of factors including historical events, economic conditions, languages, literacy and the nature of educational systems. The same author in his article 'Publishing in developing countries' (59), states that:

The colonial past is a major influence on the intellectual life of many of the developing areas, having considerable impact on the publishing enterprise as well. Traditional intellectual institutions and schools atrophied under colonialism in many cases. Employment in the 'modern' sector was unattainable for those who did not know the European languages, and gradually this language became the medium for commerce, politics, science and government.

The publication of books followed this current (p.460).

This current indicates that publishing was mainly a foreign-based industry, giving little chance for indigenous publishing industry to grow. Davinson (63) stresses this point by stating that developing countries have lacked indigenous publishing industry because in their colonial past their needs of publications were supplied from the mother country (p.32). Consequently, with independence, developing countries were left without adequate experience in publishing and that

they often ought to begin from scratch in this complex field.

This is why one can see that publishing industry in many of these countries is still in its early stages of development and that these countries have to depend largely on the importation of publications from abroad. Chirwa(64) expresses this issue from the African situation:

It is an indisputable fact that the making and selling of books in Africa is a recent phenomenon, as most of the books were written, published and printed in foreign capital cities and imported into Africa (p.35).

Importation of publications by developing countries from foreign markets is a problem in itself, as regards import licence procedures, foreign exchange, taxes, transport, high prices, bibliographic tools and political problems of trade. In addition,

Imported books can help only marginally because they are not tailored to meet specific developing country needs (59, p.459).

The situation of publishing in developing countries has drawn the attention of aid-giving agencies - international, regional, governmental and non-governmental. These agencies, particularly Unesco saw that:

The huge disparity between the book needs of the developing regions and their production resources constitutes a serious handicap to education and to social and economic progress generally (65, p.402).

Therefore, aids should be offered to these regions to help them to meet their needs for books, and to develop their publishing industry. Accordingly, Unesco organised regional meetings on book production and distribution for Asia in 1966, for Africa in 1968, for Latin America in 1969, and for the Arab region in 1972 (65, p.403).

The sixteenth session of the General Conference of Unesco, 1970, passed a resolution which proclaimed 1972 International Book Year, with the overall theme of 'Books for all'. A major concern was to give fresh motives to book development programmes in developing countries. As part of its activities in this matter, Unesco has engaged in a range of book development programmes in Africa, Asia, Latin America and the Arab region (65, p.122, 131). However, it seems that publishing industry in most of developing countries is still limited and inadequate. According to Bengé (31), the major factors that adversely affect publishing in developing countries are:

- 1) the foreign-based publisher; 2) lack of capital and credit facilities; 3) the small size of local reading market; 4) inadequate book distribution; 5) lack of public library services; 6) inadequate printing facilities; and 7) shortage of skilled manpower and expertise (pp.167-170). In addition one may refer to difficulties of life that discourage potential authors from writing for publishing.

At this stage let us look at the relationship between publishing and library services. Obviously, where literacy is high and reading habit is part of the cultural life of the society, a high demand for reading materials may exist and thus these materials are published to be read. As people read they tend to read more and more. The library as a principal source of the provision of reading materials can play a significant role in developing the publishing industry. It can stand as a big customer in the publishing market and develop in the individuals the habit of buying reading materials. Penna (67) points out that the library has a special role in stimulating and

encouraging indigenous publishing. It can guarantee a continuing market and thus ensuring the profitability of a publishing industry (p.42). It has been noted that libraries in the developed countries account up to 80% of the total purchases of scholarly books (68, p.491). For McClellan (69), the availability of libraries, that efficiently meets readers' needs will increase the significance of books and reading in the reader's personal life and lead to more buying of books and in turn book production will be greater. He further states that:

A number of investigations..., made into the reading habits of people...have confirmed the thesis that those who borrow most tend to buy most (p.3).

From these remarks one can detect how closely library and publishing systems are inter-related and interdependent; how each has an interest in the other; and how each plays a special role in the development of the other. Perhaps Lacy (70) best sums up this relationship by saying that:

Libraries cannot thrive because publishing does not provide the books the library needs. Publishing cannot survive until libraries are there to buy books (p.234).

The co-existence of advanced library and information infrastructures, and advanced publishing industries in the developed countries proves this relationship. In developing countries the deficient library and information services are also accompanied by deficient publishing industry. This forms the assumption that attempts to develop library and information services should take into consideration that provision of material has been or is being made for that development.

1.9 The R. & D. Factor

In general R.& D. (Research and Development) is defined by Unesco (22) as:

any creative systematic activity undertaken to increase the stock of knowledge, including knowledge of man, culture and society, and the use of this knowledge to devise new applications (p.v-2).

Today, the scientific approach to problem-solving and generation of knowledge is universally recognized and increasingly applied. This, of course, requires scientific and technological knowledge and the creation of new techniques and operational systems. It is the task of modern Research and Development (R.& D.) to increase man's knowledge and to create new means of actions.

Experience shows that nations without necessary capabilities in these areas are unable to develop a balanced and acceptable manner in terms of quality of life and of society, nor will they acquire the knowledge and foresight needed to confront the most pressing challenges to human survival such as overpopulation, shortage of food or energy, pollution and spoilation of the natural environment, sickness, poverty and unemployment...(71, p.134).

In a study of the resources of economic growth in the United States, it was estimated that 20% of the growth of production was attributable to the increase of knowledge and its application. Similar results have been reached by studies carried out in Norway, the United Kingdom and the USSR (72, p.166).

In developing countries there was a time that the people of some of them held leading positions in the world of science and its application. Major discoveries in astronomy, medicine, chemistry and achievements in architecture were made in ancient and medieval times

in Egypt, China, India and Mesopotamia. But because of wars, internal conflicts and foreign occupations, the social, cultural, economic and political conditions of these countries were severely disrupted. Their people were not only unable to participate in the development of world culture, science and technology but they even lost much of what they had themselves created in their times of high culture and glory. Consequently, these countries now, with very few exceptions, are mainly consumers of scientific and technological innovations developed in the advanced countries. Even in a country like India, at the end of the 1960s, 99% of all innovations were imported from abroad (23, p.6). According to Unesco (22) developing countries accounted only for 4.4% of the total world expenditure on R. & D. in 1978, and 11.3% of the total number of scientists and engineers in the world (see figure 1.6).

Figure 1.6 : R & D Scientists and Engineers, and Expenditure in Developed and Developing Countries

A R E A	R. & D. Scientists and Engineers		R. & D. Expenditure		
	Total Number (in thous- ands)	As % of World Total	Total (in (in bill- ions U.S. dollars)	As % of World Total	As % of GNP
World	2131	100	123	100	---
Developed Countries	1890	88.7	117.6	95.6	1.95
Developing Countries	241	11.3	5.4	4.4	0.43

Nevertheless, there have been notable achievements in the world of science made by scientists in developing countries. It has been estimated that in the 1960s one of every forty scientific discoveries made in the world could be attributed to India (23, p.7). For Moravcsik and Ziman (73)

The Nobel Prize of Raman or Houssay is a tangible evidence that India or Argentina can compete favourably with the United States in some areas of scientific research (p.707).

This can prove that there is scientific potential in developing countries. Therefore, the need for the establishment of indigenous capacities for R.& D. is now commonly realised by the people of developing countries and their political leaders. These indigenous capacities, if established and related to the country's own problems, will largely reduce the dependence of developing countries on imported solutions and eventually lead to the development of science and technology, strengthen their self-independence and accelerate the achievement of their national goals. M'Bow (74) draws attention to the point that

...too great a dependence on imported and insufficiently mastered technologies may lead to a de facto political dependence of the receiving country on the providing country (p.70).

Such a great dependence with its potential results may not be acceptable for any self-conscious country. Therefore, it is only on the condition of establishing indigenous capabilities will the developing countries be able to do their own research with view to applying specific solutions to their own problems. James and associates (75) identified two major reasons for the setting up by developing countries of indigenous R.& D. establishments.

1. Only through a process of creating their scientific and technological capacities can developing countries be in a position to counteract the effects of technological domination.
2. Some of the knowledge needed by developing countries is not part of the accumulated backlog to be found in the developed countries, and is best generated and tested under local conditions, as in improving tropical agriculture and constructing low-cost housing from local materials (p.59).

The need and tendency for establishing such capacities have been revealed on many occasions by regional and international bodies and conferences. The United Nations Conference on the Application of Science and Technology for the Benefit of the Less Developed Areas, 1963 stressed the necessity of establishing indigenous scientific and technological capacities in developing countries and the obtaining of technologies from developed countries (76). The regional conferences on the application of science and technology to development - CASTASIA, 1969 (77); CACTAL, 1972 (78); CASTAFRICA, 1974 (79); and CASTARAB, 1976 (71) - all were convinced of the role of science and technology in economic, social and cultural development. Accordingly, they made recommendations for the creation of national bodies responsible for science and technology policies and of R. & D. capacities. As a result, one can see that in almost all developing countries the formation of national scientific and technological potential is going ahead, even though slowly. As shown in figure (1.7), even countries such as Bangladesh and Sudan classified, among others, by Unesco (80) as the 'least developed' are engaged in R. & D. activities.

Figure 1.7 : Number of Personnel Engaged in R. & D. in Selected Developing Countries (22)

Country	Number of Personnel Engaged in R. & D.			
	Year	Total	Scientists & Engineers	Technicians
Africa:				
Ghana	1976	9819	4084	5735
Malawi	1977	431	189	242
Nigeria	1977	3545	2200	1345
Sudan	1978	6537	3266	3271
Zambia	1976	400	250	150
Asia:				
Bangladesh	1973	2412	1649	763
Burma	1975	2220	1750	500
India	1976	54105	28233	25872
Indonesia	1975	12965	7645	5320
Lebanon	1980	186	180	6
Latin America:				
Argentina	1980	22800	9500	13300
Brazil	1978	58574	24015	34559
Ecuador	1979	2960	1510	1450
Guyana	1980	344	94	250
Peru	1976	2167	3932	2235

In addition to local efforts to develop and establish R. & D. capacities in developing countries, international agencies such as the Office of Science and Technology at the United Nations, the International Atomic Energy Agency (IAEA), the World Health Organisation (WHO), and the Food

and Agriculture Organisation (FAO); have been contributing a lot to the diffusion of scientific knowledge to these countries (73, p.720).

It is no doubt that developing countries are still too far below the level achieved by the developed countries in the field of science and technology. Moravcsik and Ziman (73) attribute this to various reasons such as a) continued dependence on developed countries; b) unfavourable administrative climate in which scientists do their work; c) shortage of funds; d) deficiency of education; e) the brain-drain; f) lack of national science and technology policy; and g) lack of adequate library and information services. However, without comparison with the developed countries and if we consider the developing countries in terms of their past, we note that the development in this field is remarkable. It is evident that the pace and pattern of present and future development of developing countries depends largely on the activities of research workers. Since these need and generate information, their work depends largely on library and information services efficiently meeting their needs and disseminating the results of research to those for whom research is primarily done (see Chapter three - section 2.5 - Information for Scientific and Technological Development).

1.10 Summary and Conclusion

Library and information services are products of the environment within which they operate and thus they reflect that environment in their aims and functions. Therefore, to form a realistic background for understanding the nature of these services in developing countries, with which we are primarily concerned, it is necessary that we first of

all understand the environment in which they operate. In this Chapter we have considered this environment which is represented in a set of factors. These are: history, population, economic, education, illiteracy, culture, publishing and R.& D. It has been noted that the rapid growth of population and high rate of illiteracy; the underdeveloped state of economy, R.& D. and publishing; the traditional educational system and oral culture, have all militated against the development of library and information services in developing countries. This should not give the impresssion that advances in these aspects have not been achieved. Bengé(5) spells out this by saying that:

Perhaps a more valuable perspective can be gained if we try to look at (the situation of developing countries) not from the outside and not by constant comparison with advanced countries. If we consider these places with reference to their own pasts, the rate of advance is astonishing. In view of the daunting difficulties and social confusion it is often remarkable that in fact things do happen, and new institutions do come into being where there was nothing before. The advances are particularly noticeable in all educational areas ...(p.203).

In conclusion, it is true to say that developing countries have been going through a process of development in all the aspects we have considered in this Chapter. This process forms a force for the development of library and information services for which demand is already arising. The existence of this move for development with what we shall see in Chapter two - Information for Development, justifies the purpose of this study.

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CHAPTER TWO

INFORMATION FOR DEVELOPMENT

2.1 Introduction

In this Chapter an attempt will be made to demonstrate the importance of information and information infrastructures to development, and then within this context we shall look at the situation in developing countries. This demonstration may serve as a means of bringing about awareness and conviction among development planners and policy-makers and/or the society at large, particularly in developing countries, of the role information can play in the national development, and the necessity of adequate library and information services. As a result motivation for information management (i.e. collection, storage and retrieval) may be created. Unless development planners and policy-makers and/or the government and people are sufficiently aware of the place and convinced of the importance of information in the development process, no serious steps may be taken for the management of information. This may also serve as a justification for the purpose of this study. Information in this study is taken to mean, as defined by Taylor (1)

a commodity which is usually generated and/or packed in certain agreed-upon formats; and that under certain circumstances, it may be used a) to inform, educate, give pleasure, or b) to provide sufficient nutritional and useful stimuli for decision in specific operational contexts (p.236).

In this respect, we are principally concerned with information in documents to be found in information infrastructures which include

libraries of all types, documentation centres and archive depositories.

2.2 Information for Development - General Remarks

In a Unesco document (2) it has been stated that:

Information has become an essential basis for the progress of civilization and society. Lack of information and effective means of exchanging it are widely recognized as being limiting factors in economic and social development of peoples. Thus the problem of information is none other than the problem of managing mankind's knowledge - the collective memory which society must learn to control effectively and utilize fully in order to progress (p.321) .

The importance of information has been increasingly recognised by those concerned with the development process. In the introductory section of a report for the Organisation for Economic Cooperation and Development (OECD) (3) the subject of information has been discussed in this way:

The wise man does not act without attempting to know the consequences of his actions. Contemporary societies must be more prudent in their actions if technology is to be a boon rather than a curse for mankind. Information is the key to the wise management of our future. Perhaps the most important event of the next decade will be the recognition of the true value of information - the right information, reliable and relevant to our needs, available in a useful form to all those who need it (p.17) .

Information has come to be recognised as a resource as important as matter and energy. Parker (4) points out that there are three factors primarily responsible for the quality of life - matter, energy and information - and of these only information has a potentially infinite supply. He argues that further improvement in the quality of life is likely to be very dependent on the production and distribution of

information (p.1). The intimate relation between information and development is expressed by Aiyepoku (5)

Today ... the availability of technical information and the degree of its accessibility and usability to the public and private sectors of a nation's economy, and to the individuals in that society has become yet another yardstick for distinguishing developed from developing countries. The reason is largely because the generation, distribution, and application of information generally, and of scientific and technological information in particular, has become a heavily capitalized industry with huge turnovers in monetary and human resources (pp.117-18) .

The use of information as a development tool has been confirmed at the highest level. In 1974, 135 countries meeting at the United Nations General Assembly, proclaimed resolution (3201) as one of the principles of a new international economic order:

Giving to the developing countries access to the achievements of modern science and technology, and promoting the transfer of technology for the benefit of developing countries in forms and in accordance with procedures which are suited to their economies (6) .

In December 1975, the United Nations General Assembly adopted a resolution (3507) on institutional arrangements in the field of transfer of technology. The resolution affirms the importance of wider dissemination of scientific and technological information and stresses the need for developing countries to have access to information on advanced and other technologies required by them as well as on the new uses of existing technology, new development, possibilities of adapting them to local needs, and the need to select technologies which meet their own requirements (7,p.4). Besides these previous affirmations (by the United Nations and by individuals) of the importance of information to development one can detect this importance through substantial activities in

the field of information. These activities include the design and establishment of information infrastructures, cooperation in information management and exchange, organising meetings on information practice and problems, forming professional bodies dealing primarily with the information field, and investments in information.

International organisations such as Unesco, the International Federation for Library Associations (IFLA), the International Federation for Documentation (FID) had organised and sponsored many regional and international meetings on various aspects of library and information services, in many parts of the world. As the meetings were held and their reports and proceedings appeared, certain characteristics of the role of information and information infrastructures in national development were revealed to be more or less common to all nations, regardless of their level of development. In this respect, the meetings organized by Unesco, or under its auspices or with its assistance between 1968 and 1978 amounted to 102 meetings (8)

On the international level, Unesco convened the Intergovernmental Conference for the Establishment of a World Science Information System, Paris, 4-8 October 1971 (9). This Conference was organised to advise the Director-General of Unesco on the desirability of establishing a programme to implement the recommendation made in the study conducted jointly by Unesco and the International Council of Scientific Unions (ICSU) on the feasibility of a world science information System (UNISIST) (p.7). In 1974, the Intergovernmental Conference on the Planning of National Documentation Library and Archives Infrastructures (10) was organised by Unesco to define guidelines of planning and policy

and methodology, and to formulate recommendations for the preparation of national plans. The Conference saw information as a national resource and that access to it is one of human basic rights. The importance of managing and utilizing this resource was stressed so as it may contribute to the progress of nations. With this in view, the Conference adopted recommendations supporting the concept and objectives of national information systems (NATIS), which includes all services concerned with the provision of information for all those who need it. On the regional level, Unesco convened a series of meetings for the purpose of evolving principles and recommendations on national planning, policies and methodologies which would serve as a model plan; and assessing the library and documentation needs for social, economic and educational development. These meetings were held for the Arab countries, in Egypt (1974); for Africa, in Uganda (1970); for Asia, in Sri Lanka (1967); and for Latin America, in Ecuador (1966) (11) IFLA Worldwide Seminar (1976) (12) took libraries as an important national resource for economic and social development and urged governments of all countries to give priority consideration for the planning, funding and systematic development of a coordinated national library system (p.45). FID's World Congress (1976) (13) had as its theme "Information and Development", and as if to lend emphasis of this topic to developing countries, the place for the Congress was Mexico City.

On the national level, one may refer to the White House Conference on Library and Information Services (WHCLIS) held in the United States in 1979 (14). The WHCLIS, convened under the umbrella

theme, "Bringing Information to People", signalled out the importance of an informed society in the advancement of civilization and the continuance of enlightened self-government. In order to put the above theme into practice, the Conference adopted, among others, the following resolution on National Information Policy:

that a National Information Policy be studied and implemented and that this policy should guarantee all citizens equal and full access to publicly funded library and information services; ensure that government agencies at all levels work together to make available all new and existing library and information services to the maximum extent possible; and to protect the privacy of all segments of society (p.336).

Another evidence of the recognition of the role of information in development is the formation of national, regional and international bodies dealing specifically with the information field. International bodies will be looked at in Chapter Three, Section 3.3 - Information Management.

The American Congress at its 91st session (1969) affirmed that:

Library and information services adequate to meet the needs of the United States are essential to achieve national goals and to utilize most effectively the nation's educational resources and that the Federal Government will cooperate with State and Local Government and public and private agencies in assuring optimum provision of such services (15, p.73).

Hereby, the Congress passed the establishing of a National Commission on Libraries and Information Science as a permanent independent agency responsible for

developing and recommending overall plans for meeting national informational needs and for advising the President and the Congress on implementation of national policy (15, p.74).

The establishment of many information systems and programmes and the huge expenditures allocated for this purpose can be also taken as evidences of the importance of information. Aman (18) noticed that 50% of the Gross National Product of the United States is devoted to the processing, storage, retrieval and dissemination of information (p.331). Recognising the value of information as a necessary support for effective programme activity, and the increased interdependence of countries with regard to information, the international community has for a number of years now, been establishing information systems and services designed to serve the whole world. Economic, technical, political, professional and humanitarian motives have promoted the design and implementation of these international systems. The outstanding examples of these systems are those created by the organisations within the United Nations, e.g. the Common Register of Development Activities (CORE) at the United Nations in Geneva, to handle information about development projects; the Data Retrieval System for Documentation in the Social and Human Sciences (DARE) at Unesco to handle social sciences data; the Development Science Information System (DEVSIIS) for economic and social development information (16,p.3). Many other information systems and programmes of regional or international scope have been established by governmental and non-governmental bodies in different parts of the world. For example, we can refer to the International Food Information Service established in 1968 by the Institute of Food Technology, U.S.; the Commonwealth Agricultural Bureaux, U.K.; and the Institut für Dokumentationswesen, West Germany (17,p.4). (For more about international

information systems/services and programmes, see Chapter Three, section 3.3 - Information Management).

Through the establishment of these information systems and programmes, the international organisations, having recognised the important role of information in development, are taking steps towards the aim of equal access of information among all nations of the world and at the same time towards a new international economic order. In this respect, it seems that there is a consistency in the international organisations' approach and this approach is promoted and maintained, to a considerable extent, by UNISIST and by its successor the General Information Programme (PGI). The increasing recognition of the role of information in development has resulted in the increasing use of and demand for this resource and thus within this context creates impetus for the establishment of new information systems and programmes and the promotion of the existing ones. An example of these trends is the creation of the General Information Programme (PGI) by Unesco.

These activities devoted to information management are obvious evidences of the recognition of the importance of information as a resource that can be managed and utilized for the betterment of the quality of life of the society.

To sum up, we quote Professor Havard-Williams (18) as saying:

To have a healthy and well-balanced society in the conditions of contemporary technological civilization, provision (of information) needs to be made at all levels - for the technologist and the scientist, for the peasant, to get the benefit of the most modern improvements in agricultural production, for the student in the college and university, for the manager in his decision-making, for the blind and deaf, the handicapped, the prisoner, the hospital patient. (p.56).

In the previous remarks we have focused in general on the recognition of information as an essential resource for development. Since we see 'development' as a multi-dimensional process referring to the economic, social and cultural; educational; and scientific and technological growth, designed for the well-being of nations, we shall, in the following sections, consider the role of information in these respects.

2.3 Information for Economic Development

The English economist, Alfred Marshall (19) defines economics as:

a study of mankind in the ordinary business of life; it examines the part of individual and social action which is most closely connected with the attainment and with the use of material requisites of wellbeing (p.7).

Economic development, among other factors, is essential for the overall development of a country; it is the material base for national development. Economic development can only successfully be achieved and maintained if the majority of the citizens of a given country is consciously mobilized to carry out and defend its implementation and if its achievements rest mainly on its efforts. Here arises the role of information to both planners and workers on the problems of diversification and on new methods and techniques in the economic activities, e.g. agriculture, industry, commerce.

In the early part of this century Alfred Marshall (19) wrote:

Ideas whether those of arts and science, or those embodied in practical appliances, are the most "real" of the gifts that each generation receives from its predecessors. The World's material wealth would quickly be replaced if it were destroyed, but the ideas by which it was made were retained. If however the ideas were lost, but not the material wealth, then that would dwindle and the world would go back to poverty (p.643).

The close linkage between the development of material wealth and information is illustrated by Parker (4). He argues that all increases in material wealth flow from the discovery or the creation of new patterns in matter and energy. Information is the pattern of organisation of matter and energy (p.1). Material wealth is an economic resource that requires efficient management if full utilization is to be made of it for the benefit of economic development. The management of material wealth, however, depends on the availability of the 'know-how', the information. The oil-producing countries of the Middle East are very rich in material wealth, some of them, like Kuwait and Saudi Arabia, for instance, rank among the richest countries of the world, yet they are classified as developing, not developed, countries. This is, for the most part, because they lack the know-how, the information - particularly scientific and technical - which enables them to manage and utilize their material wealth for their own development. Löhner (20) wrote:

The quantity and quality of information developed as a product in a country's and the country's ability to disseminate it are indicators, among many others, of its economic ... strength (p.19).

Neelameghan (21) saw information as a non-depleting factor of production used for converting other resources into value-added goods and services needed by society. He further pointed out that while in the pre-industrial society material property e.g. land, labour and capital is the main source of economic power, in the post-industrial society (towards which many developed countries are now moving) the managed information, which programmes and governs machine and human performance in the social industrial progress, would be the main source of economic

power (p.5). The role of information in the industrial process is graphically illustrated by Atherton (22,p.2) as seen in figure (2.1).

The same message is expressed by Kent (23)

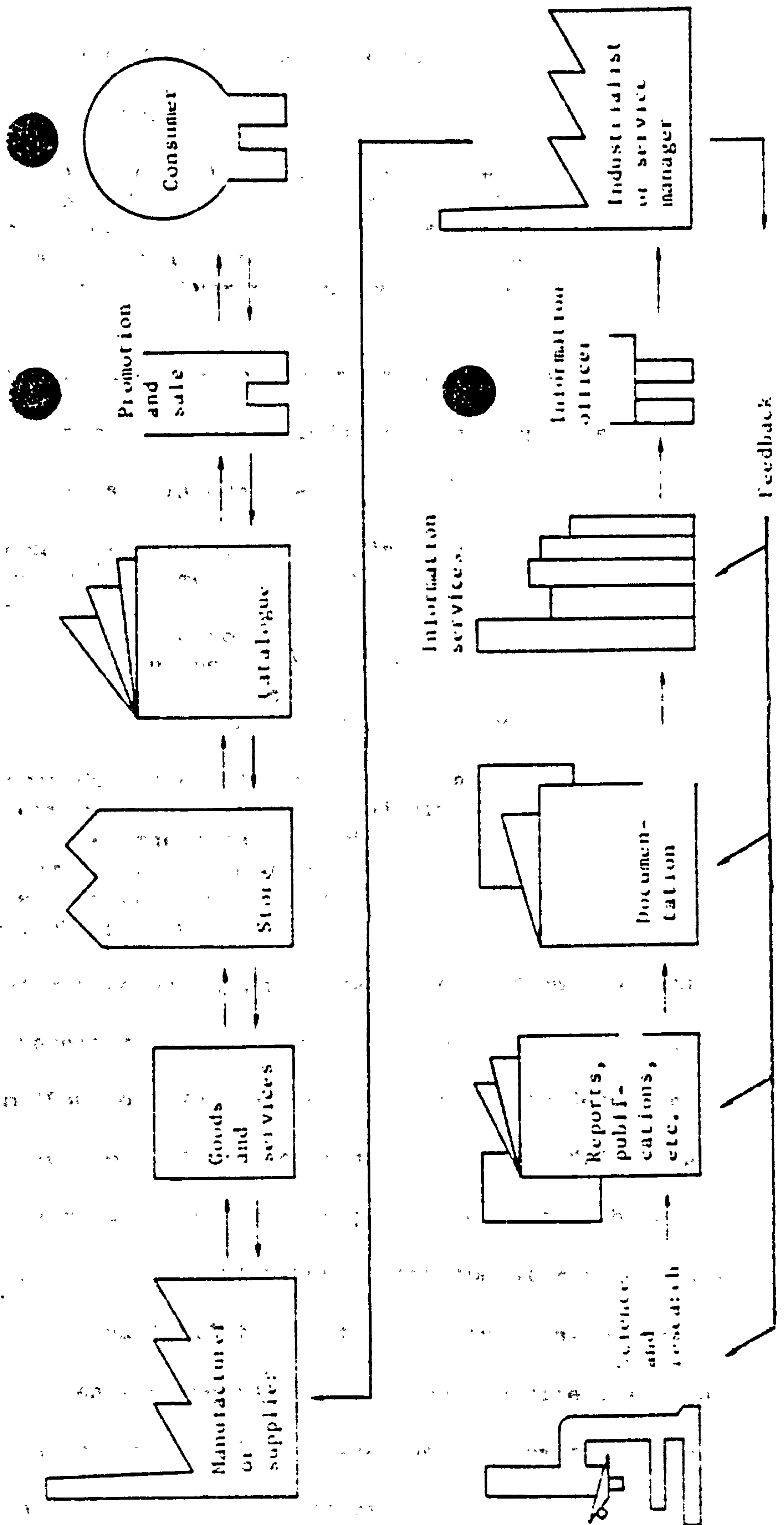
Information is no different from any other raw material or commodity and can be seen as being capable of being conserved, exploited, processed or used in manufacture as if it were coal or oil or iron ore (p.17).

In any organisation and in our daily life, information has an important place in the decision-making process. Where accurate and timely information is available, an accurate and complete decision on a given concern can be made and consequently, positive outcomes be achieved. Sweeney (24) singled out the significance of decision-making in the industrial society by saying that:

In the industrial society, the decision-making of industry has been the innovative action which, has brought about the technical and social changes and created the economic which has transformed Western society (p.204).

Tsui and Schriesheim (25) argue the place of information in organisations as a power reducing uncertainty and improving decision-making. They take organisation as a decision-making social system, and power as the extent to which A (an individual, group or organisation) gets B to do something that B would not otherwise do. Uncertainty has been viewed to be the difference between the amount of information required to perform the task and the amount of information already possessed by the organisation (p.378). They (p.380) concluded that information is a significant power source due to its role in uncertainty reduction and the facilitation of rational decisions. Power, therefore, accrues to those who have information to reduce uncertainty and/or to improve decision-making.

FIGURE 2.1 THE ROLE OF INFORMATION



Professor Wilkinson (26) discussed the subject of information for decision-making in this way:

There is a growing recognition at senior level that, when organised, the information to which a company has access can increase the effectiveness of decision-making at a cost that is negligible in comparison with the improved outcome of the decision (p.18).

This recognition seems to have led to the increase and promotion of activities in information management in industrial enterprises. Sir Montague Finniston (27) gives this example:

The system/computer strategy of the British Steel Corporation is aimed at meeting two important requirements. First, to support the Corporation's major capital development plans by increasing the investment in on-line computer production planning and control systems in ten of...larger sites. Second, to provide a flexible and robust data processing service to all functions within the Corporation to meet the great majority of information demands and to ensure that this service is swiftly adaptable to organisational and technical change (p.13).

The efficient management and utilization of information has resulted in tangible benefits in the economic sector. Atherton(22) pointed out that from 1960 to 1970, the work of the Rubber Research Institute in Malaysia led to 100% rise of rubber yields in Malaysian small holdings, and the work of the International Rice Research led to a 30% rise of rice yields in the Philipines. Atherton attributed this rise in the yields to the availability of efficient information services serving small and medium entrepreneurs in these two countries, whereas comparable countries in the region without the same information sub-systems, hardly moved at all during the same period (p.10).

Archival information can be of practical use in the national economic development. Smith(28) found out that:

In the field of agriculture the results of earlier studies and experiments have proved of great value. Unpublished reports and notebooks on raising rice and in the culture of silkworms, for example, considerably benefited agricultural development in Madagascar, Whereas the loss of records relating to cocoa growing led to long and expensive experiments and costly failures (p.158) .

Marquant (29) shows us how archives have been used in work of economic importance:

In the U.S.S.R. and other specialist countries, the archives departments have helped in the drafting of economic plans, in the U.S., in the administration of economic services (p.235).

The previous remarks make us realise that there has been a general awareness that information in itself is a resource as essential as resources of nature, capital and of human skill and enterprise and thus forms a vital factor in national economic development. This can be attributed to the recognition that "expenditures on information may constitute the most promising investment in improved economic productivity" (4,p.11). The large investment in the information field in the developed countries demonstrates this trend. The United States may be in the lead in this respect. The economist, Machlup(30) has called the "knowledge industry" that part of the U.S. economy which greatly depends upon acquiring and using information. He (pp.361-62) estimated that in 1958 about 29% of the existing U.S. Gross National Product (GNP) or \$136,436 million was spent for this industry. He included education, research and development, media of communication, information machines and information services in that total divided as below:

Education	\$60,194 million	(44.1%)
Research and development	10,990 "	(8.1%)
Media of communication	38,369 "	(28.1%)
Information Machines	8,922 "	(6.5%)
Information Services	17,961 "	(13.2%)
Total	\$136,436 million	(100%)

The expenditures were made by:

Government	\$37,968 million	(27.8%)
Business	42,198 "	(30.9%)
Consumers	56,270 "	(41.3%)
Total	\$136,436 million	(100%)

Attention has been drawn to the increases in expenditures on the production and distribution of information. It has been estimated by Peter Drucker (31), that the United States spent on the production and distribution of information 25% of her GNP in 1955, 33% in 1965 and 50% in 1970 (p.24). Presumably, if such trends of increase in expenditure on information have been continuing, we may expect a greater percentage of the U.S. GNP devoted to the production and distribution of information at present.

In Japan, The Plan for Information Society - a National Goal Toward Year 2000 (Japan Computer Usage Development Institute, 1972) recommends a major centrally planned development of what they call "the information society". They propose a five-year investment of 1,000 billion yen (3.2 billion dollars). Their argument is that with such a national investment they can sustain an annual rate of growth of GNP in excess of 10% a year (32, p.11). As for Western European countries, OECD experts estimate that member governments spend about

\$1,000 million a year for the handling of scientific and technical information (33,p.11). According to international estimates, Rozsa(34) found out that an amount of \$200 million is spent annually on documentation and services in the world (for publishing directories and abstracts) and another \$300 million for storing, selecting and retrieving information material (p.17).

It is a well-known fact that business and industry, labour and government which are already making considerable investments in information management may not do that unless they are convinced and have evidence that these investments result in economic benefits. Consequently, on this basis, one can conclude that investment in information has proven to have economic returns.

2.4 Information for Educational Development

Man is the primary and ultimate source of national development.

In the most fundamental sense, development is an educational process whereby people learn to understand and alter constructively their relations to their natural and social environments (35.p.vii).

The role of education in development can be seen through the results of an effort, to measure development on basis of educational progress, worked out by Harbison and Myers (36). In their effort seventy-five countries were divided into four stages of educational development. According to data on GNP per capita (about 1958), it was found that level I (17 educationally underdeveloped countries) had a mean of \$84; level II (21 partially developed countries) had a mean of \$182; level III (21 semi-developed countries) had \$380; and level IV (16 developed countries) had \$1,100 (pp.23-48).

According to Schumacher (37) the causes of poverty indicate the areas for development. He distinguishes primary and secondary causes of poverty.

Primary causes of poverty are:

- deficiencies in education;
- deficiencies in organisation; and
- deficiencies in discipline.

Secondary causes of poverty are:

- lack of natural wealth;
- lack of capital; and
- insufficiency of infrastructure.

Development should, therefore, begin with the education, organisation and discipline of people, which would enable them to utilize their natural resources and own potential. Development is not possible overnight because education, organisation and discipline can only be achieved through an evolutionary process (pp.156-57). The library as a development agent gets strong support from Schumacher's idea that the point of departure of development should be the education, organisation and discipline of a community. The educational objective of the library is accepted worldwide and fits well into his argument.

Realistically, one has to acknowledge that library and information services constitute a significant element of the total educational services available in a country, and thus their role in the educational process is indispensable. A library-oriented education establishes in the student the habit of finding out about, evaluating and presenting ideas and information. This habit may, of course, stick to the student in his later life whatever professional direction he/she takes.

This person on the long run may hold a serious position in business, industry or government, and decision-making may be his/her responsibility. Thus, such a person will depend on the use of appropriate informational sources in decision-making. Jefferson (38) draws this picture of the role of library in the educational process:

Training in the use of books and the apparatus of the library introduces a confidence in a self-discovery of knowledge, a curiosity and an experimental attitude to learning which is far removed from the mood of passive acceptance of information to be memorized. It parallels the replacement of learning by heart, by involvement based upon investigations into subjects across traditional lines and which emphasizes and uses the interests and environment of the pupil (p.55).

The library power in the matter of education is most clearly seen in university libraries : their large size, their collection of books and other materials, no less than hundreds of thousands, constantly growing; their beautiful buildings centrally located on the university campus, and the large investment in them over the years. It is now very rare to find a university without a library. A university is incomplete without a library backing up its educational programme.

In continuing education, or in other words, lifelong education, library and information services have also a remarkable importance. Homer (39) stated that,

Continuing education has been part of the historic mission of libraries, and for more than a century in Great Britain, Canada and the United States libraries have filtered with the idea (p.33).

Tough (40) identified six areas of interest, quite unrelated to the academic environment, in which informal continuing education experiences

could profitably occur:

- preparing for an occupation;
- remaining current in one's field by learning specific tasks and problems while on the job;
- learning for home and personal responsibilities;
- improving some broad area of competence as reading or writing skills;
- learning for interest or leisure; and
- exploring a subject out of curiosity.

Literacy campaigns may be a largely wasted investment unless they are backed up by locally available library and information services. Other than stimulating and strengthening the teaching/learning process at school, college or university, library and information services have the role of providing educational policy-makers and planners with the information needed for the process of educational planning. Educational planning backed up with reliable information will, no doubt, be a success, otherwise risks and mistakes may be inevitable. The preceding remarks show that the library can play and it has really played a remarkable role in the advancement of education. Thus it can be seen as a force of education. "Libraries as a force of education" was adopted as the theme for the 36th session of IFLA in 1970 (41,p.279).

2.5 Information for Scientific and Technological Development

The role of science and technology in economic, social and cultural development and in the fulfilment and liberation of man has been universally accepted. Consequently, it is now very rare to find a country, at whatever stage of development, without the capacities engaged in the development and application of science and technology

for development. The outcomes of the application of science and technology can be clearly seen all over the world. Professor Havard-Williams(42) wrote:

Since the nineteenth century, the social role of science and technology has grown so that their consequences affect not every man, woman and child in industrialised countries, but the evidence of science and technology is to be seen perhaps in a rudimentary form, all over the world - the technology of the motor-car or automobile for instance or that of the results of pharmaceutical science are present in most areas of the world (p.2).

The Conference of the Ministers of Arab States Responsible for the Application of Science and Technology to Development (CASTARAB)(43) of 1976, took scientific and technological development as a vital necessity for reducing the inequalities in economic and political power which features the present relationships between states and constitutes a potential threat to world peace (p.22). The developing countries represented at the United Nations Conference on Science and Technology for Development (UNCSTD) 1979, by the Group of 77 (now more than 120 developing countries) believe that science and technology play an important role in the establishment of new international economic order (44,p.53). However, scientific and technological development depends heavily on the availability and efficient management of scientific and technological information.

Given the internationally recognised role of science and technology as well as the belief that science and technology would be called upon to play a direct role in stimulating overall development and reducing international inequalities, the UNCSTD, 1979(45) focused principally on information and thus recommended:

International organisations should act as a tool for systematic exchange of information on experiences of different countries in all fields pertaining to the application of science and technology for development. In this connection, continuing considerations should be given to the establishment of a global and international information network, within the United Nations system, where emphasis will be placed on priority needs of the developing countries (p.53).

Phillips (46) put it like this:

A country's resources in science and technology will depend not only on its knowledge, embodied or disembodied, but on the velocity of the circulation of that knowledge (p.163).

Obviously, the velocity of the circulation of knowledge cannot be worked out without the availability of adequate library and information services. A distinguished physician, Bernal, wrote in 1945 that:

The unity and complexity of science has grown to such a degree that the library and information service has become a key to conscious progress along the whole front of advancing knowledge (47.p.4).

Realising the importance of information management for scientific and technological development, the OECD Ad Hoc Group on Scientific and Technical Information advocated in its report, 1971(3), that

policy for processing and disseminating scientific and technical information be considered an inseparable part of policy for science and technology, which in turn is an inseparable part of policy for achieving economic growth and other national goals (p.21).

The four regional Conferences on the Application of Science and Technology to Development in Asia (CASTASIA), 1969(48); in Latin America (CACTAL), 1972 (49) ; in Africa (CASTAFRICA), 1974 (50); and in the Arab States (CASTARAB), 1976 (43) were totally convinced of the role of information facilities in the advancement of science and technology and

thus made important decisions for the establishment and promotion of mechanisms for the management of scientific and technical information.

The UNISIST Conference, 1971(9) noted that

Science in modern society has become one of the decisive factors in economic and social development, in technical progress, and in the continuous growth of productive forces throughout the world, and that the rate of advance in scientific and technical achievement is to a large extent dependent upon the dissemination and utilization of scientific and technical information... (p.17).

The Seminar on International Co-operative Information Systems organised by the International Development Research Centre (IDRC) in 1979 (51) suggested that:

Each country should have a policy on scientific and on technological information as an integral part of its overall science and technology policy for development in order to maximize the national utilization of the world stock of knowledge;

national science and technology information infrastructures should be developed and/or strengthened so as to collect, process and disseminate information of importance to the individual country whether such information has been generated inside or outside the country, and should have access to and be capable of utilizing all information systems; ... (p.55).

Some benefits likely to result from a large availability of scientific and technical information may be cited here.

- a) Improved capability of a country to take advantage of existing knowledge and 'know-how' achieved elsewhere.
- b) Rationalization and systemization of a country's research and development efforts in light of knowledge already available.
- c) Wider knowledge base for the solution of problems.
- d) New alternative and approaches to the solution of technical problems, and options for minimizing future ones.

e) Improved effectiveness and efficiency of technical activities in the production and service sector.

f) Above all better decision-making in all sectors and at all levels of responsibility (22.p.10).

It is axiomatic that these benefits may not result in the lack of an infrastructure responsible for collecting, storing and retrieving scientific and technical information. Penna (52) found out that:

One reason given by research workers for moving from less - to more - developed countries is the greater accessibility and quality of library and information services. (p.39).

The importance of information availability and accessibility for research activities is expressed by Monge(53):

Information ... is essential for successful research endeavours, not only to avoid duplication of efforts but also to obtain a multiplier effect sometimes called a "cross-fertilizer of ideas" (p.68)

In their experiments to improve the information transfer and effectiveness of R. & D. in industry, Olson and Fake(54) preliminarily found out that:

1. Improvements in the access to available knowledge do have a favourable impact on the output of an R. & D. group.

2. Improvements in the management of information process in research projects and in the transfer of research results to clients also have a favourable impact on the output of an R. & D. group.

3. Attention to both improved access to information and the management of the process has the most favourable impact on the output of R. & D. (p.80).

Improved information services do not only have a favourable impact on R. & D. activities, but also on the dissemination of their results to the people for whom the research is done and who should benefit from it.

In developing countries where, on the most part, information services are generally deficient, Professor Iyenger (55) noted the following phenomenon:

It is a common feature in many developing countries that amidst ignorance and poverty, there are very advanced scientific institutions with eminence of scientific achievements. This means that the benefits of science and technology have not reached those for whom they are most essential (p.3.).

In conclusion, one can say that scientific and technological advancement is like a chain; knowledge is built on knowledge; the scientists of the present build on the achievements of the former ones and so on.

De Solla Price (56) stressed this fact by stating that:

....so large a proportion of everything scientific that has ever occurred is happening now, with living memory. To put it another way, ..., we can say that 80 to 90 percent of all scientists that have ever lived are alive now (p.1).

But how this took place and continues to do so. It is, for the most part, due to the availability of information infrastructures that efficiently collect and store the information once generated and disseminate it to those who need it. Thus the wheel of scientific and technological development is kept going on and on.

2.6 Information for Social and Cultural Development

In the previous sections we have talked about the importance of providing information to specific groups of people in specific areas of occupations and interests. For instance, in the section, information for educational development, we talked about providing information for those engaged in the teaching/learning process, i.e. pupils, teachers, educational authorities...etc. In this section

we are going to show the importance of providing information to the general public and how this can contribute to the overall national development. The development of any country is heavily dependent on its citizens who are capable of responding and adapting to changing and challenging conditions. Such citizens can only be found in an informed society which has become a feature of the modern world. An informed society, beyond all doubt, supports its country's development programmes and effectively contributes to their implementation and maintenance of their achievements. An informed society is a vital basis for a democratic well-balanced society where citizens can speak their minds openly on this or that matter of public concern. In an informed society people, according to the quality and quantity of information they have access to, can analyse, evaluate and present ideas. In an informed society, citizens can understand their duties and their rights. On this premise, one can touch upon the importance of information for developing social change. For this reason dictatorial regimes viewed an informed society as a threat to their existence and thus ignored and or paid no attention to the establishment or development of library and information infrastructures.

Thompson(57) has this to say in this context:

....libraries are powerful instruments of social and political change. They are distrusted and, very frequently in history, have been suppressed by dictators, despots and autocrats of every kind. The establishment of the public library system in Britain in the last century was resisted by a number of the nation's rulers on the ground that they feared that access to libraries and books would give working people ideas above their station, and that libraries would become centres of unrest and hot-beds of sedition. Those who held this view have, of course, proven right. From the few generations of working people who supplemented their meagre

education, by using their local library has sprung the present situation in this country, which is fairer, more humane and more democratic (p.10).

By and large, citizens have to make decisions in their lives and need relevant information for their own decision-making process. People make decisions daily regarding such matters as family life, employment, education, health and many other life situations. The availability of information on such matters and its accessibility will, by all means, release the citizens from the tension and wastage of time and effort that result from the difficulty in getting access to needed information. The role of information in the citizens' life is clearly illustrated in the following statement quoted by Horton (58):

Information is a social and political necessity but it also satisfies a deep-seated need in man. A citizen needs information to make the proper choice in life, to conduct his affairs, to understand his environment, to buy things, build his house, educate his children, etc.... his most important decisions, his hopes and his achievements are due either partially or entirely to the information he has been able to glean (p.141).

Professor Arntz (59) pointed out that since information is the medium of social communication, it has a strong effect on the dynamics of social process, and strengthens the relationship between government and the community as a whole. (p.3).

In the general social and cultural framework, the German classical philologist, Walter Jens, quoted by Kaegbein (60), observed the library in this way:

For me, the library is something like the spiritual centre of a city, a place of unreserved coming together: children, older persons, very fragile people, no one will be laughed at, humanity prevails, the children walk about, discussions take place, you can take out a

book,...., you can look about to see what else there is on the shelf, you can move around and speak to others. The library, that is to say, the communication centre, the city hall for us smaller people....I believe that one must therefore support the library, because it is truly the ideal communications centre coming closest to the people themselves, where one can meet with others, with the possibility at anytime of achieving a relationship to the treasures of the past. Where one not only protects the cultural heritage but can also practice it, and where something of dominance-free communication truly prevails, friendly exchange.....(p.335).

In the development of national consciousness and identity Archives can play a constructive role, by fully utilizing its general information and also the specific historical facts and details held in the written national heritage which it preserves. For this purpose, and as a part of its activities,

The National Archives in Paris have organised what are known as 'cultural interludes' designed for shop and office workers and ordinary people in the working-class (29,p.237).

In conclusion, man needs to satisfy his physical needs and in order to live full life, he also needs to satisfy his intellectual needs, the needs to know, to know himself and his surrounding; the needs for self-development and fulfilment; the needs to be an informed individual capable of contributing to the national development process. Therefore, the availability of efficient agencies to satisfy these needs are necessary, if society is to develop.

2.7 Information for International Understanding

Man as an individual cannot live in isolation from his local and or national community. The same applies to the nations of the world which collectively form the international community within which there is interaction and interdependence. In this context, the

problems confronting a given nation or region may be considered of international concern and thus requires cooperative effort on the part of the able nations for their solutions. Understanding at any level can be regarded as an essential factor in a problem-solving process. Development in itself can be accepted as a series of problem-solving processes concerned with the issues of economy, education, science and technology, etc.

International understanding, therefore may be regarded as an effective element in bringing about a peaceful and cooperative atmosphere favourable for the solution of development problems confronting the nations of the world in less time and effort. The Meeting of Experts on the National Planning of Documentation and Library Services in Arab States (1974) realized that:

...successful national development can be achieved only if there is international cooperation giving each country access to experience gained in others, and in the international field...(11,p.1).

What, then, is the place of information in international understanding? Information is the dynamic medium of communication and where there is communication there may be understanding. International understanding based on reliable information can help in creating and strengthening the bonds of friendship and good relations among the nations and thus human efforts will be directed towards peace and construction rather than conflict and destruction.

The NATIS Conference (1974)(10) recognised that:

Information has become an essential basis for the progress of civilization and society and that by improving human relationships in their societies and between peoples of different cultures and traditions it contributes to better understanding and world cooperation (p.14).

It is, therefore a necessity that information be made available to citizens of each country about each of other countries of the world to ensure international understanding and avoid tension and confrontation.

The root of international confrontation may sometimes be traced to the lack of understanding or due to mis-understanding or mis-interpretation born out of the ignorance of the motivations, aspirations, tradition, culture and values of one nation by another (31,p.20).

The lack of understanding and its results included in this statement can be attributed, to a considerable extent, to the lack of reliable and complete information.

Understanding based on accurate information can successfully lead to the design and implementation of support programmes allocated to needy countries by aid-giving agencies or countries. The matter of understanding in this respect is illustrated by Neelameghan(31):

...several of missions of the United Nations, the Unesco and other international agencies sent to some of the developing countries for introducing public health measures, and educational reform have failed to accomplish the objective mainly due to the lack of understanding the local people and their culture. In some cases the results have been disastrous (p.20).

To ensure better international understanding has led to the emphasis on information transfer among the nations of the world. The UNCSTD, 1979(45) recommended that:

Information systems and networks to be established at subregional, regional and international levels should ensure close linkages with the national information systems to provide all support for strengthening the national science and technology information capacity, including systems to facilitate access to technology information contained in patent documents through training, institute building and intergovernmental co-operation in classifying, publishing and exchanging such documents (p.53).

The recognition in the U.S. of the importance of information on a global basis and of the role of such information in furthering international understanding and cooperation was reflected in one of the five major themes of the White House Conference on Library and Information Services (1979) (14):

The Resolution on International Information Exchange urged that protocol for library and information exchange in the U.S. support the participation of Universal Availability of Publications and encourage the elimination of trade and other barriers to the exchange of library materials of all kinds; that consideration for international communication and sharing be included within the framework of the networks which will be created; and that federal funds should be made available for the implementation of international networking (p.338).

The public library manifesto of Unesco proclaimed the public library as "an essential agent for the fostering of peace and understanding between people and between nations" (61,p.129).

In the light of the previous remarks throughout this section, one can conclude that the availability and accessibility of accurate and complete information is necessary to ensure international understanding and cooperation which eventually may help in finding a solution for the problems of development and of other issues facing a given nation or the international community as a whole.

2.8 The Situation in Developing Countries

In the previous sections an attempt has been made to demonstrate the role information can play in the development process of countries. Within this context an attempt will be made in this section to highlight the situation in developing countries and then conduct for the so situation.

In the preceding sections we have seen that in order to plan for development objectively, to successfully implement the development plans and to maintain their achievements, informed people are needed. Informed people are needed since we can look at development planning, implementing development plans and maintaining the achieved results as a series of decision-making processes which may be regarded as information input and output process, so

In a given context a decision is only as good as the adequacy of the information available to the decision-maker and the efficiency with which he/she processes and applies the information (21,p.4).

Given the wide recognition of the importance of information for the whole range of human activities we have already noticed how the developed countries are devoting much effort and money to information management. Since almost all developing countries are looking forward to and struggling for development, a steady supply of accurate information for all those engaged in the development process is needed. For instance, it is a common feature in most developing countries that industrialisation is seen as an essential foundation for their development. If so, and in order to establish new industries and run the existing ones more efficiently, developing countries need information on such aspects as technology, product design, production equipment, standards, marketing, management and many others. Where is this information available? Some of it is available locally, some may be in other developing countries and some in the developed countries. Therefore, and in order to acquire this information and disseminate it to all those who need it, efficient infrastructures are required to carry out this task.

Tell(62) states that

When the government of a developing country wants to improve the economy, raise the educational level, increase agricultural production, improve the health services, establish industry and many other items which are given priority attention, it is essential that the government uses the information at its disposal for the betterment of community (p.285).

The importance of information provision for the advancement of developing countries has been recognised and stressed on countless occasions by experts, organisations, meetings and many others of national, regional and international level.

The Regional Meetings of Experts on the National Planning of Documentation and Library Services(11) realised that national development of the developing countries of the Arab States, Africa, Asia and Latin America depends, to a large measure, on the amount, quality and accessibility of information. Owing to this realisation, the meetings reached many conclusions and made important recommendations for the establishment and promotion of information infrastructures. Choi(63) found out that in the countries designated as advanced developing countries -included is Iraq with which we are specially concerned - there is demand for information services and this demand arises mostly from the personnel of research and development institutes, higher education institutions, and industrial enterprises (p.233).

In Education and research and development, for example, where many developing countries suffer from shortage of human and financial resources, library and information infrastructures are desperately needed to help in this matter, because as Professor Havard-Williams(64) put it,

...library provision is a relatively economical service in any country, capitalising on the benefit of a much more expensive educational system and research programme. It costs 3% - 5% of the cost - of both together, or even of the educational programme alone (p.76).

He further argues that

if modern technologies are to be developed one must have educated population (and) if education is to be exploited economically, then information and libraries are essential (p.84).

Poliniere (65) noticed that highly educated professionals spend around 20% of their time looking for information. Approximately twenty developing countries have each over 100,000 such professionals. The total time spent by 100,000 professionals searching for information will be approximately fifty million hours per year, worth around 100 million in U.S. dollars. The users of a well-managed national information system receive the same information in less than 10% of the time required before the introduction of management techniques; which means for the developing countries a saving of over ninety million U.S. dollars (p.14).

It is, therefore, very necessary for developing countries to have efficient information infrastructures to supply relevant and complete information for those who need it because

Without relevant information, countries cannot choose the best courses of action in terms of their own national interests (66, p.147).

Generally speaking, it is true to say that in all developing countries there is a hierarchy of library and information provision - at a minimum (or nothing at all) school libraries, then university libraries, and lastly special or industrial libraries. There are, of

course, regional differences. In Anglo-phone Africa, libraries are relatively well-developed, in Francophone Africa, there is very little. In South America, the library profession tends to be divorced from the information workers, librarians are very poorly paid and frequently hold two jobs to make ends meet. In the Arab countries, public libraries are almost non-existent, and so is any kind of bibliographical organisation, though there is a concern for scientific documentation because it is necessary for industrial development(64,p.78). In countries where foreign-based firms exist, special libraries - industrial or commercial - seem almost non-existent because research and development is done in the mother country and technical innovations are not read in journals but brought by foreign personnel working in the firms. From the Australian situation Borchardt (67) has this to say:

In spite of Australia's wealth in terms of material resources, its industrial development has been relatively slow. The reason is quite simple. Most of our larger industrial enterprises are run by multi-national corporations whose home bases are not in Australia. As a result, industrial research related to manufacturing activities is carried out at the home plant in the U.S.A., in the U.K., in Germany or anywhere other than Australia. (p.410).

However, the pressing question that needs to be answered is that whether the existing library and information services are capable of meeting the arising information demand and of playing their role in the national development process. The answer, with very few exceptions, is 'No'. As Choi (63) wrote:

The developing countries are generally deficient in information facilities. In some instances, nationally coordinated information activities do not yet exist; in many others they are too

rudimentary to meet growing requirements. As a result, such countries are unable to identify their information needs adequately, to acquire pertinent information, or to disseminate it to those who need it(p.3).

Harrison Bryan, quoted by Dean (68), gives this example from the Indonesian situation:

At a time when Indonesia's national effort is gathering momentum, particularly in the development of research and scholarship, it is clear that libraries and documentation services, the essential tool of this development, are not expanding or improving at the necessary rate. Because of this failure to provide an adequate infrastructure, there is a risk that the Indonesian people will be denied a proper return from the enormous investment of effort and money that has been put into the search for increased productivity and a higher standard of living (p.90).

The situation in developing countries has been discussed by Slamecka(69) in this way:

The minimum conditions for effective transfer of knowledge for socio-economic development include 1) a propensity on the part of problem solvers to use scientific and technical information; and 2) a level of indigenous infrastructure that permits access and use of information. In many developing countries the propensity to use knowledge is not widespread; there and elsewhere, problem solvers are not adept at mapping raw information into specific problems; besides, there are only rudimentary information infrastructures, some lack the organisational structure and mechanism for information access and flow together (p.8).

The deficiency of information infrastructures has already had its effects on developing countries. It has been pointed out by Tocatlian(66) that the lack of adequate information relevant to

national needs and objectives and the inability of many decision makers to effectively use such information as is found resulted in the acceptance by developing countries of the perceptions of the industrial countries as to what constitutes development. This acceptance has undermined the developing countries capacity to decide for themselves what is suitable for their needs (p.147). As a result of deficient library and information services, Inganji (70) found out that:

Most developing countries suffer from an acute imbalance in the distribution of information among various groups of society and various geographical areas. The very existence of "information rich" and "information poor" groups can be seen as a hindrance tending to perpetuate the unequal distribution of the gains of the development process. (p.81).

The deficiency of information capabilities has affected the scientific output in developing countries in terms of quality and quantity. On the basis that the index of a nation's scientific output is the number of papers published by its authors, Gordon (71) conducted an investigation to highlight the problems of the authors of developing countries by examining the evaluation of all papers produced by those authors and submitted to two prestigious physical science journals between 1968 and 1974. He found out that 57% (81 papers) of 142 papers were rejected mainly due to the lack of originality and inadequate references to the relevant literature. This situation was seen as a result of poor level of literature current awareness which was in itself an aspect of poor library services and other communication channels.

In all seminars organised by COSTED, there was a general feeling among scientists and science educators that the working scientists and educated people in developing countries were getting alienated from the rural surroundings and the problems of the country. This was attributed to the methods of information dissemination which were not geared to link educational processes in the discipline of science to the national problems, objectives and goals (55,p.3).

What are then the factors impeding the development of library and information services? Choi(63) found out the following:

1. Shortage of qualified staff.
2. Lack of a national information policy.
3. Insufficient funds.
4. Lack of coordination and cooperation.
5. Lack of user education. (p.245,247).

The situation in developing countries has attracted the involvement of many parties such as foreign experts, international organisations - intergovernmental and non-governmental - and some developed countries, which offered various types of assistance to developing countries in information and its management. On the top is the United Nations with its specialized agencies, particularly Unesco. Unesco has regarded as an important duty assisting Member States to establish and develop the efficient national library and information infrastructures essential to economic, social, educational and cultural development.

The educational institutions in the U.K. and U.S. have offered educational and training facilities in the field of library and information to a considerable number of people from developing countries.

For example, the Department of Library and Information Studies, Loughborough University of Technology (U.K.) is providing post-graduate studies for librarians from many developing countries every year.

In spite of the various types of assistance offered by various parties to developing countries in the field of information, their information infrastructures are still generally deficient. In this respect one can say that besides the factors found out by Choi (63) - referred to earlier - there is a persisting factor that hampers the development of information infrastructures in developing countries. This factor is the lack of government support, without which these infrastructures cannot flourish and are likely to perish. The lack of this support can be proved by two features, 1) the small expenditures allocated to information infrastructures; and 2) lack of support to implement the recommendations and resolutions of conferences and/or proposed information programmes. If, in some cases, information programmes are implemented, they are likely not to survive due to the lack of government support. Adams and associates (72) have this to say on this matter:

Unesco organises documentation centres for developing countries - after five or six years some of them collapse, because the government do not support them (p.118).

Quiason (73), referring to the recommendations and proposals of a long series of library and information conferences held in Asia between 1955 and 1970, says

That no substantial scale of implementation had been made of the various recommendations was partly due to the lack of effective and vigorous support from the Asian governments... (p.16).

What does this lack of government support stem from? Salman (74,p.241), Taylor (1,p.238), Eres (75,p.205), Bengé (76,p.198), Saracevic (77,p.92), Berchardt (67,p.404) and Adimorah (78,p.145) all attribute this lack of support to the lack of awareness and recognition, on part of the governments, of the important role of information in development.

On this point we may quote Roberts (79) as saying:

Governments, particularly those in the developing regions, in assigning high priority to the stimulation, agriculture, health and industry too often fail to recognise the basic need for libraries and information services to support development programmes and to promote the improvement of productivity and of human and economic resources. Even when they recognise this need, governments do not always provide the necessary financial support (p.152).

To sum up, there is a need and demand for information in developing countries but, on the most part, their capabilities for collecting, storing and retrieving information in terms of infra-structures, manpower, and financial resources are inadequate. These inadequacies have resulted in: a) inadequate information for development planning and other human activities; b) inability to identify and use information relevant to their needs and found in the growing store of information in the developed countries; and c) limited outflow of information generated in the developing countries themselves.

2.9 Summary and Conclusion

Information has come to be widely recognised as a non-diminishing resource as important as other resources of energy, matter and human skill. Thus, it has an essential role to play in the development process of societies. This can be witnessed by looking at

the role information has played in countries which have passed through the development process, and the high attention given by these countries and the international organisations to information management. In conclusion, if information as a resource is to play its role in development effectively and efficiently, it must be well-managed and fully utilized. Developing countries which are looking forward to and struggling for their own development, should give a high attention to the development of their library and information services. It is only in this way that information as a resource can be utilized and support the development process.

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CHAPTER THREE

THE INFORMATION UNIVERSE

3.1 Introduction

Anthropologists and sociologists resolutely surmise that 'society' existed since the dawn of human civilization. As soon as human creatures, now called 'men', came into being on earth they felt the natural necessity of 'interaction' to live together and communicate their behaviour with each other in a myriad ways (1, p.4). The early forms of human communication were represented in gestures, facial expressions, cries, etc. Thence grew the spoken language.

Speech began when the first vocal original articulations became dissociated from their original values and were stereotyped into conventional symbolic pattern (2, p.14).

As human culture evolved, speech alone became unable to

...satisfy man's need for information, for oral communication was severely limited by the temporal boundaries of human memory and the spatial parametres of human contacts (2, p.14).

Consequently, the graphic records, printing and press came into existence to cause a revolution in human communication. Man strived continuously to create something more developed, newer and more sophisticated. He created literatures and inspired others to read and create. This necessitated the evolution of certain means to preserve and disseminate man's intellectual creation. Shera (3) states:

Thus, as graphic records came into being in response to the need of society for a medium that would communicate messages essential to the operation of the social structure, to religious doctrine or ritual, or

to any other activity in which the members of the society might engage, so there arose the demand for an agency to control such of those records as needed, for any reason whatever, to be preserved (p.242).

With the development of human civilization, man's intellectual output increased in terms of quality, quantity and variety. At the same time the methods and techniques applied to collect, store and disseminate the increasing amount of information have continued to develop with greater and greater sophistication. At present one witnesses what has been termed as the 'information age', 'information revolution', or 'information explosion'. These terms indicate one thing in common, it is the great volume of information and the several activities devoted to the management of this information for use.

It is the purpose of this chapter to give a general background to what exists currently in the information field in the world, by reviewing information generation and growth; information management; and future developments in the information field. Since developing countries are part of the international community and affect and are affected by it, attempts to plan for the development of library and information services should take into consideration international trends in this field if much waste of money, time and effort is to be avoided in the future.

3.2 Information Production and Growth

In this study we are primarily concerned with information to be found in documents in libraries, documentation/information centres and archives depositories. Information production and growth will be

looked at in terms of the numbers of the documents produced, those who produce them and the rate of their growth.

Man's memory was the first tool for recording information which represented his experience and observations. As writing was invented, man's memory gave place to a more durable and precise tool of recording information, the graphic records. Hence man used various media such as wood, stone, clay tablets, papyrus and parchment to record his information(4, pp.20-22), until the invention of paper and its manufacturing.

Printing was invented in the 15th century and since there has been a flood of printed matter. The invention of the printing press has had much to do with the scientific renaissance which began in the sixteenth century and matured in the seventeenth century. In the latter part of the seventeenth century professional scientific societies existed. The prime example is the Royal Society of London which started in 1662 and was the first to publish a journal, "Philosophical Transaction". Thus, the journal started and proliferated as a quicker medium of information (5, pp.4-5). De-Solla Price (6) pointed out that:

Just after 1660, the first national scientific societies in the modern tradition were founded; they established the first scientific periodicals; and scientists found themselves beginning to write scientific papers instead of the books that hitherto had been their only outlets (p.8).

He also noted that by the year 1750 there were 10 different scientific journals; by 1800 there were 1000. By 1900 this number had grown to about 10,000, and by 1950 to about 100,000. This number is tended to

increase and by the year 2000 may possibly be 1,000,000 (p.9).

A glance at the present-day volume of documents of all forms and subjects makes one convinced that an information explosion is continuous. This explosion is primarily the direct result of the exponential growth of the literature of science and technology.

Anderla (7) stresses this point by saying:

It is the varying productive capacity of scientists and technicians which must be held primarily accountable for the speedier growth of scientific and technical information in modern times and especially in the years to come (p.60).

The same message is found in Iyengar (8) who wrote:

The proliferation of research and development programmes has resulted in an enormous output of scientific literature, in the form of books, periodicals, technical reports, conference proceedings, microforms, films, tapes, etc., that is growing exponentially (p.6).

It has been noted that in the U.S. and U.S.S.R. there are about 100,000 pieces of scientific research conducted every year (9, p.4).

It is no wonder that the output of these research activities in terms of information results in thousands of documents.

Anderla (7) put the number of scientific journals appearing more or less regularly throughout the world between 30,000 and 100,000 (p.14). Unesco (10) put the figure at somewhere between 50,000 and 70,000 (p.11). Professor Iyengar (11) found that in 1975 the number of Chemical Abstracts was 201, 663; of Electrical and Electronic Abstracts was 44,979; and of Physics Abstracts was 87,636 (p.34).

It has been noticed by Lancaster (12) that in 1978 there were about 50,000 journals in scientific and technical areas published throughout the world and this number was thought to be increasing steadily in

the range of 2% to 4% a year (p.347). Gray and Perry (13) looked at the amount of the information production through the number of papers. They noted that the volume of scientific and technical papers exceeded ten millions and this number is thought to be growing by about a million a year, though some would say nearer to two million (p.21).

The book, which has been the primary medium of information for centuries, is an important contributing factor to the increasing amount of information. Ashworth (14) put the figure of 300,000 titles as the annual production, of which 90,000 were in the English Language (p.63). It has been estimated by Wotton (15) that the increase in book production is about 17,000 books annually (p.81).

It is very interesting to note that the amount of information production has been analysed in terms of days, hours and even minutes. This indicates the growing stock of information and the speed of information production. Anderla (8) estimated that 6,000 to 7,000 articles and reports have been produced per working day (p.16). Professor Vickery (16) points out that in every minute of every day of the year a couple of scientific and technical papers are published somewhere in the world (p.23). In terms of words, Phillips (17) noted that in every twenty-four hours about twenty million words of technical information are being recorded (p.162). A library scientist has estimated that in every minute thirty thousand words are being added to the media of print worldwide (18, p.1). An overall estimation shows that about

two thousand books, newspapers, reports and other documents are turned out every minute of the twenty-four hours of the day all over the world and the approximate volume of these publications runs into some 1,050 million pages (19, p.12).

The expansion of scientific and technical information is a natural result of the expansion of science and technology which in itself is an outcome of the growing size of the scientific and technical community. De Solla Price (6) states that while in the seventeenth century there were relatively few scientific men who could be named and counted, there are now (1965) in the U.S. alone more than a million people with degrees in science and technology (p.8). The same message is found in Adnerla (7). Anderla sees the problem in terms of information: the amount of information results from the increasing number of scientists and technologists and the equally improvement of their productivity which has been estimated to rise by some 4% per year (p.60). Professor Arntz (20) put the figure of researchers, economists, technicians, etc., who are responsible for the production and dissemination of sources of information at ten to twelve million. He considers that in 1985, including the foreseeable development in developing countries, there will be thirty to thirty-five million scientists, economists, technicians, etc., producing about twelve to fourteen million documents a year (p.10).

It is not only science and technology that may be held responsible for the expansion of information production but also the social science. In this respect Professor Havard-Williams (21) wrote:

Social science material is growing as fast if not faster than scientific material. One has only to think of the various forms of publications or records to be aware of the growth of social science literature - the increase in government publications not only in the industrial countries but also the widely spread increase in developing countries in addition to the numerous contribution to the 'grey' literature of the report world. Education has been a particular growth area, of which the effect is seen in the development of many documentation centres in this field including those initiated by Unesco (p.4).

As regards the growth of information, this has been measured by the number of documents being produced. One is sure to say that the amount of information is increasingly growing. Harrison Bryan (22) made an analysis of estimates proposed and came to the conclusion that the world publication of monographs (new information) and the number of current titles of serials showed an increase of about 4% a year (p.400). Professor Meadows (23) put the figure of the annual growth rate of scientific and technical journal titles worldwide at 2% during the 1970s while that of book production (in titles) at 3% to 4%. He expected a continuing introduction of new journal titles through the 1980s (p.7). Professor Meadows and associates (24) in discussing the future for new research journals in the 1980s, have remarked that the number of journal titles in existence will continue to increase during the 1980s (p.137). They have attributed the increase to the tendency of learned societies to split their existing journals into others of a more specialist nature (p.138). (See the increase in journal titles as shown in figure 3.1).

Figure 3.1 : Total Number and Numbers of New Scientific Journals Published by various Commercial Publishers (24, pp.142-143).

Publisher (year)	Total No. of Journals	New Journals (included in total)	
		Vols.1-4 began in 1975-1978	of these vols.1-2 began in 1977-1978
Academic 1978	140	23	10
Applied Science 1978	12	3	-
Cambridge 1977	52	1	-
Crane & Russak 1977	16	16	-
Elsevier 1978	296	60	38
Pergamon 1978	280	89	62
Plenum 1977	140	48	24
Raven 1977	4	2	-
Reidel 1978	34	8	4
Sijthoff Noordhoff 1978	5	1	-
Springer	152	22	12
Thieme 1978	30	5	-
Verlag Chemie 1978	30	5	4
Wiley 1977	33	7	5

The following estimate, noted by Orr (25, p.7), of the doubling of knowledge (information is the essential base for knowledge) indicates the nature of the rapid growth of information.

First doubling of knowledge :	Birth of Christ - 1750	=	1750 years
Second	" " " : 1750 - 1900	=	250 "
Third	" " " : 1900 - 1950	=	50 "
Fourth	" " " : 1950 - 1960	=	10 "
Fifth	" " " : 1960 - 1966	=	6 "

The above example shows that the doubling rate of information, from the birth of Christ to 1966, has been reduced from 1750 years to 250, 50, 10 and 6 years.

On a national level, an example for the growth of information can be cited here from the U.S. situation. According to Lancaster (26) 5203 new books (hard covers) in science and technology were published in U.S. in 1965; in 1974 the figure rose to 7314, an increase of more than 40% in less than ten years.

Conference proceedings seem to be published at the rate of about 7000 items a year, over 2000 of these in science and technology. Between 1960 and 1974 the number of patents issued in the U.S. increased from 50,000 to 80,000; a 60% increase. In 1965 there were 8,865 new dissertations while in 1974, the figure reached 15,606. There has been also a rapid growth in the technical report production. This can be seen in the number of reports indexed by the two major disseminators in U.S., the National Technical Information Service (NTIS) and the Defence Documentation Centre (DDC). These two agencies processed 77,742 items in 1965 and 90,496 items in 1973; a rate of increase of 16.4% in 8 years (pp.68-69).

The growth of information can also be witnessed through a glance at the expansion of libraries and their collections. The eighty-five American universities were doubling the number of books in their libraries every seventeen years, an annual growth rate of 41%. The Johns Hopkins Library was adding over 100,000 books to its collections each year, and by 1976 it was expected to have a total of 2,5 million volumes. Its growth rate has been put at 8.8%. This means

that its size doubles every nine years (7, p.27). The cost of producing information recorded in documents is correlated with the expenditure on a given information-producing activity such as research and development. This was shown clearly in a Eurotom study carried out for the first half of the sixties. A census was made of the atomic energy literature of all forms published since 1960 in all the relevant countries. It was found out that for each million dollars spent on R. & D, on average, eighteen documents were produced (27, p.352).

H.W.Koch (28) of the American Institute of Physics, in an analysis published in 1968, estimates the cost of each government-sponsored paper to consist of three parts:

- | | |
|--|------------|
| 1. Production of the information | = \$50,000 |
| 2. Intellectual organisation and storage | = \$ 400 |
| 3. Dissemination and utilization | = \$ 400 |

This gives a total of \$50,800 per document (p.42). It has also been noted that the expenditures and the number of scientific publications double every ten to fifteen years (19, p.7).

The growth of information production was examined comprehensively by Anderla (7), in his study, Information in 1985 (1973) carried out for the OECD. On the basis of quantitative retrospect, this author forecasts by extrapolation and arrives at conclusions concerning the information situation in 1985, outlining the likely pattern of future growth and identifying the main tendencies. The quantitative information growth is largely due to the action of a built-in accelerating mechanism independent of other factors. As a

whole, the information universe will continue to expand at an annual rate of 12.5%. In 1985 - 87 six or seven times the present volume of new information will be produced and that there will be about 120 - 150 million documents of widely varying types (pp.119-120).

A detailed consideration of the growth of science and its publication was made by De Solla Price (6) in his Little Science, Big Science (1963). In his consideration, he follows the exponential growth law (increase in geometric progression) which is regarded as a typical statistical law of population development. De Solla Price states this law in the following way:

....if any sufficiently large segment of science is measured in any reasonable way, the normal mode of growth is exponential ... multiplying by some fixed amount in equal periods of time ... an empirical law (that) holds true with high accuracy over large periods of time (pp.4-5).

He gives some examples of doubling times:

100 years	:	Entries in dictionaries of natural bibliography
50 "	:	Population
20 :	:	Gross National Product (GNP) Important discoveries College entrants / 1000 population
15 years	:	Scientific journals No. of scientific abstracts, all fields.
10 years	:	Literature in experimental psychology Speed of transportation
5 years	:	No. of overseas telephone calls Magnetic permeability of iron
1½ years	:	Million electronic volts of accelerators (pp.6-7)

The increase in the information volume has been accompanied by an increase in demand for information. Professor Arntz (20) confirms this

point by stating that:

...the need of information grows at approximately the same rate as the increase in its production (p.10).

The same has been stressed by Professor Meadows (23) who noted that

The current level of demand for documents (identified by any method) in EEC countries is estimated to be around six million per annum, and is currently growing at perhaps half a million per annum. It has been suggested that increased on-line access may raise this figure to over 14 million in 1983 (p.11).

The amount of information and its exponential growth has led to the notion that there has been an information explosion. This can clearly be evidenced by the wide use of this term by professionals in their writings. Coblans (27) attributed the wide use of this term to the following:

1. In the immediate post-war situation there was a flood of documents.
2. The application of scientific research.
3. Unadequate staffed and financed libraries, seemed to be facing a crisis, even a breakdown from the suddenly increased and strong load of documents (pp.350-51).

However, the same author disagrees with the use of information explosion because he thinks that:

...there is no information explosion in any meaningful use of the word explosion, which certainly has a clear meaning in reaction kinetics (p.351).

Gray and Perry (13) also disagree with the term, information explosion, and described it as "dramatic and descriptive". They prefer to use an 'information crisis' that is gradual yet may be prolonged, and that challenges the traditional approaches of information users to this valuable resource (p.21). The same authors (p.22) attribute what

they call information crisis to four factors:

1. Much of the new research is of a cross-disciplinary nature.
2. Language of the literature.
3. The scattered nature of growth in literature.
4. The continuing, perhaps even growing, unevenness of quality.

In a forum it has been pointed out that we suffer from an information chaos which is not due to the so-called literature explosion, but rather to the lack of central guidance and coordination (29, p.118).

Jordan Baruch, quoted by Weisman(5), has made the observation that we are facing an information pollution rather than an information explosion (p.9). This pollution has been seen by Professor Iyengar (11) as a result of the unrelated duplication of research effort by different investigators (p.35). On this premise Goudsmit (30) came to the idea that much of the literature is not even worth retrieving or reviewing at all (p.52). Gray and Perry (13) concur:

Most scientists readily admit that a good deal of the literature is not worth publishing (p.22).

The overflow of information has brought about what Ashworth (14) calls, a threefold panic reaction:

1. A call for tougher evaluation of papers or restrictions on the languages in which serious scientific articles are published.
2. The attempt to enable coverage to be achieved in forms of reviews, digests and abstracts.
3. Turning the whole problem over to the computer (p.63).

To sum up, it is true to say that the size of information stock world-wide is breathtaking, and this store is growing exponentially.

However, the greater part of information production is virtually controlled by the developed countries. Choi (31) has noticed that developing countries produce less than 5% of the world's scientific literature and perhaps an even smaller proportion of the total technical information (p.2). Information, in such a situation, is to flow from the developed to developing countries though this flow is likely to be hampered due to economic, technical, political and linguistic reasons. Consequently, the information gap between the developed and developing countries is already existing, with the possibility of becoming wider and wider. Information as a resource requires to be well-managed in order to be fully utilized for the advantage of socio-economic development of societies. Information management is the subject of the next section.

3.3 Information Mangement

Information management is taken to mean the collection, storage and retrieval of information. This section is a state-of-the-art review of the activities devoted to manage information so as to make it accessible for use.

When man invented and started writing, he felt the need to collect and preserve his records - whether of clay tablets, papyrus sheets or parchment rolls. These collections existed in impressive size and number before the development of paper, and long before the invention of printing in the fifteenth century (32, p.22). The collection and organisation of written records was as early as ancient Egypt where the earliest writing and some of the earliest libraries

developed. Ancient Babylonia also had libraries as early as Egypt or earlier (5, p.28). During the Reign of an Assyrian King, Assurbanipal (667-628 B.C.) a library was achieved that would be notable for its size, content and arrangement in any age (4, p.30). The early librarians have been traditionally custodians of recorded culture. They were qualified as librarians by virtue of their literacy and familiarity with written records. In ancient Egypt, Babylonia, India, China, Greece and Rome, the librarians were either priests, Kings or teachers. They had many duties, but the keeping of records was the main one. Their functions were further expanded by medieval librarians in monasteries, who taught their apprentices copying, book-binding, skills in recording, repairing and loan procedures (32, p.22). As long as there were only a few records, organisation was no problem. When the number of items made some arrangement necessary, the early librarians experimented with assortment by size or by shape. Only later they considered the literary content of their materials and developed an elementary form of classification. When the number of records stored passed the limit of easy recollection, then they made a list of them, and the first catalogue or shelf-list was developed (4, p.6).

The invention of printing from movable type in Europe in the fifteenth century (32, p.22) made it possible to achieve large production of printed matter more rapidly and cheaper. This has resulted in developing methods and tools for efficient acquisition, cataloguing, classification and servicing of these materials. This indicates that as the production and importance of records grew in society, the functions of the librarians developed responsively.

Shera (3) wrote that:

As the culture matured and became more and more sophisticated, its dependence upon the graphic records increased and changes in the culture were reflected in the librarian's responsibilities (p.242).

He added that:

The growing importance of all types of graphic records to the successful operation of contemporary society, conditioned as it is by and to science and technology, has forced the librarian to search for and adopt new methods and techniques for making recorded information available not only to scholars but also to business, industry and government (p.243).

The conventional methods of bibliographical control (cataloguing, classification and indexing) have long been used to make the arrangement of recorded information (books and journals) helpful and easy for retrieval. However, the rapid growth of and the increasing demand for information of various areas of interests, have put the conventional methods to a severe pressure. Consequently,

Efforts to meet the challenge caused by the information explosion and to make available relevant information to the user in time and in an economic manner have led to the evolution of newer techniques in processing and storing of information for quick and efficient retrieval (8, p.6-7).

These efforts have resulted in a vast increase in numbers, types and sizes of information infrastructures, in the range of systems for coping with the information problem, and therefore in the human and financial resources devoted to these activities. Besides, the rapid developments in the computer technology and telecommunication, including satellite communication, have made it possible to use

sophisticated technology in information management. At present there is a large number of information infrastructures and they tend to develop all over the world. The World Guide to Libraries (1980) (33) lists 42,200 libraries of all types with holdings of 30,000 volumes or more; except special libraries which are limited to 3,000 volumes or more. In the United States, as listed in The American Library Directory for 1982, there are 28,949 libraries of all types (34). In the U.K. according to the Aslib Directory, 1980 (35), there are, for example, 3621 information sources in the social sciences, medicine and humanities. An OECD Inventory of 1971 listed 146 major information systems and services in science and technology, most of them are totally or partially mechanized (36). In developing countries, there are 432 industrial information systems and services (37). In the thirty-seven United Nations Organisations there are 108 information systems and services of different subject-fields (38). The above are but a few examples to show the size of the population of information infrastructures. Besides the establishment and promotion of information infrastructures, many other devices have been evolved and developed to cope with the problem of information management. These devices include a) secondary information services; b) international cooperation; c) research in library and information science; and d) mechanization.

3.3.1. Secondary Information Services

The development of secondary information services can be attributed to two main reasons:

- a. The need of the user to know what information is already available

in his field of interest, where it is available and how he can get access to it in a world known to be going through an era of information explosion. To satisfy this need abstracting and indexing services began to appear.

- b. The need of the user to know how good the available information is. This need has led to the establishment of critical reviews and these consequently led to the development of information analysis centres in many developed countries to meet the need for systematic reviews and evaluation.

Generally, services such as reviews, abstracts, indexes, bibliographies, reference services and certain retrieval systems fall within the category of secondary information services. The functions of these services, as outlined by Professor Iyengar (8) are:

1. Reviewing or abstracting, together with indexing or classifying the abstracts produced.
2. Storage and retrieval of items pertaining to the primary literature.
3. Alerting or current awareness, to furnish information or newly published items that can be made available (p.7).

Bearman (39) identified three types of secondary information services:

1. Discipline based services; those attempting to cover all publications or only certain types of documents on a subject, e.g. Biosis, Education Index.
2. Mission-oriented services; usually developed by government agencies to provide access to literature related to achieving a certain goal, such as getting on the moon. The U.S. National Aeronautics and Space Administration (NASA) information system is an example for those providing such services.
3. Crisis-oriented and problem-oriented services and customized products. The need for information products other than the above two to fill the increasingly complex needs of users led to the development of such services, e.g. TRISNET (National Network of Transportation Research Information Services), U.S.A. (pp.184-85).

The appearance of secondary information services goes back to 1715 when abstracts of the periodical literature was first published (27, p.71). According to Gray and Perry (13) the first abstracts journals appeared in the mid-nineteenth century and since that time the practice has spread so far that there have been major abstracting and indexing services for each discipline and each major cross-disciplinary field (p.9).

The world population of indexing and abstracting services has been estimated to be about 3500, with some 1500 of these in science and technology (14, p.63). Adnerla (7) estimated the growth rate for indexing and abstracting organisations at 5.5% a year (p.16). The growth of secondary information services can be evidenced by the number of publications issued by these services. See figure (3.2). Another evidence for this growth is the number of documents processed by the members of the U.S. National Federation of Science Abstracting and Indexing Services (NFSAIS) for instance. (see figure 3.3).

According to Slamecka (44) the estimate of the total bibliographic items processed in 1977 by major U.S. indexing and abstracting services (consisting of about twenty-five non- and ten governmental organisations) was about 2,5 million (p.4). As regards information analysis centres, in the U.S. alone, there were twelve thousand of such centres in 1966, though half of them were established since 1950. This means that the total number of these centres doubled within sixteen years, an annual growth rate of about 4.5% (7, p.26).

Figure 3.2 : Number of Publications of Selected Secondary Information Services
1967 - 1971 (42, p.249)

Name of the Service	Number of Publications Issued				
	1967	1968	1969	1970	1971
Abstracts of Photographic Science Engineering Literature	3,593	3,085	2,665	6,674	7,200
Applied Mechanics Reviews	8,802	9,426	10,000	10,030	10,300
Bibliography and Index of Geology - AGI	11,450	17,029	27,557	35,000	50,000
Biological Abstracts	125,026	214,000	220,010	230,025	230,000
Chemical Abstracts	239,481	251,884	282,803	309,742	330,800
Engineering Index Monthly	56,560	61,231	56,000	66,000	77,000
Information Science Abstracts (DAI)	1,327	1,564	2,638	3,100	4,000
Medical Documentation Service	1,692	1,901	3,102	3,425	4,000
Physics Abstracts (INSPEC)	40,788	50,477	49,619	79,830	80,000
Psychological Abstracts (APA)	17,202	19,586	18,068	21,722	23,000
TOTAL	505,922	630,183	672,462	765,548	816,300

Figure 3.3 :

Number of Documents Processed by Selected Members of the U.S.
National Federation of Abstracting and Indexing Services (39,p.182).

Name of the NFAIS Member	Number of Documents Processed		
	1967	1972	1977
American Dental Association	6,681	7,388	7,990
Am.Geological Institute	11,450	42,000	49,057
Am. Petroleum Institute	29,151	32,983	66,000
Am.Psychological Association	17,202	24,000	27,004
Am.Society for Metals	23,800	24,400	33,351
Bio-Science Information Service	125,026	240,006	250,148
Chemical Abstracts Service	269,293	379,048	478,225
Documentation Abstracts, Inc.	1,327	3,618	4,721
Engineering Index, Inc.	51,670	83,653	97,380
The Foundation Centre	9,000	35,000	44,000
Institute of Electrical and Electronics Engineers	-	5,473	12,000
International Academy at Santa Barbara	-	10,185	23,600
Medical Documentation Centre	1,692	2,500	2,500
National Association of Social Workers	896	1,068	1,303
Philosophy Documentation Centre	2,000	3,100	26,000
Total	549,188	894,422	1,073,279

Secondary information services are growing in size and in number in an attempt to cope with the growth of primary literature. This feature is demonstrated by Ashworth (14) who points out that it took the Chemical Abstracts Service about 32 years (1907-1938) to publish its first million, 18 years to publish the second million, 8 years for the third, 4 years and 8 months for the fourth, and only 3 years and 4 months for the fifth (p.63). In secondary information services certain developments have been taking place. These developments, as outlined by Bearman (39) are:

1. A steady increase in the number of machine-readable abstracting and indexing services.
2. A proliferation of problem-oriented or topic-oriented, special spin-off products from a single data base.
3. An increase in cooperation among secondary services producers, and between producers and other groups in information transfer chain (e.g. dissemination centres and primary publishers).
4. An emphasis on user aids and the education of the user of the services.
5. Some important steps toward standardization.
6. An increasing awareness of the effects of on-line use upon secondary services, both nationally and internationally.(p.179)

3.3.2 International Cooperation

The role of information as a resource in the development process has been universally accepted. Consequently, many governments are establishing information policies so as to achieve better management and utilization of this resource. In the UNISIST Feasibility Study Report (10), it has been stressed that information is

an international resource, built painstakingly by scientists of all countries without regard to race, language, colour, religion or political persuasion. As it is built internationally, it is used internationally (p.1).

Besides, it has been widely realized that no information infrastructure, no country and even no region can achieve an information self-sufficiency and self-efficiency in information management. In an OECD report (42) it has been concluded that international co-operation in the information field

...is not merely a fortunate world tradition but a human necessity. National self-sufficiency in scientific and technical information is not, and never has been a realistic policy alternative, even for the largest nations (p.47).

The above thesis has necessitated and eventually resulted in various cooperative activities in the field of information management. The outstanding results of these activities have been the establishment of international information systems/services and programmes to facilitate access to information resources worldwide. Webster's Third New International Dictionary defines the word 'international' as "participated by two or more nations", and 'cooperation' as "a collective action for common well-being or progress". In our concern, international cooperation is taken to mean a voluntary participation by many (more than two to avoid bilateral agreement) national bodies for common well-being or progress in information management. In the following pages a brief review of international cooperative activities in information management is given. This will be looked at through the ~~three~~ major aspects of international cooperation : a) the establishment of information systems/services; b) the establishment of international

information programmes; and c) the establishment of international professional associations.

3.3.2.1 International Information Systems/services

The establishment of international information systems/services can be regarded as the most remarkable feature of international cooperation in the information field. The chief motives for creating international information systems/services, as outlined by East (43) are:

1. To promote the coverage and timeliness of information transfer by accessing material at or near its source.
2. To avoid unnecessary duplication of effort.
3. To benefit from the use of local linguistic skills for transforming document descriptions into the carrier language or languages of the system.
4. To maximize the use of available subject specialist skills.
5. To foster goodwill by participation in a joint venture (p.4).

However, the decisive factor contributing to the establishment of international information systems (especially those sponsored by international governmental organisations), as seen by Wysocki (44), is the agreement of politicians. He pointed out that:

It is common knowledge that the governments of the world wanted INIS (International Nuclear Information System), not so much for its value as an information system, but because it represented a breakthrough from the cold war and early steps towards detente in nuclear field (pp.306-307).

One can say that whatever the motives and purposes of establishing such systems or services, they do have a great contribution to the facilitation of information access worldwide, and they, to a considerable

extent, have so proved. Wysocki (44) clarifies this by concluding that:

...the existing international information systems are playing a very important, I would even say, essential role in satisfying the users' needs and in organising the worldwide transfer of information (p.307).

According to Tacatlán (45) there are twelve international information systems and services in addition to many national ones with international scope and orientation. The prime examples of international information systems and services are those established by the agencies of the United Nations.

3.3.2.2 International Information Programmes

Many international information programmes have been launched by international organisations, starting in the sixties and in the seventies. The major factors for establishing such programmes are:

1. The growing needs and interests of national governments in information work.
2. The information explosion which has increased the gap between developed and developing countries in the establishment and use of information systems, and the expectations that developing countries would benefit from closing this gap.
3. The introduction of computers in information processing and the costs of hardware and software required to operate them. (44, p.301, 305).

The remarkable examples of such programmes are those of UNESCO, namely UNISIST, NATIS and then the General Information Programme (PGI).

3.3.2.2.1 UNISIST : A World Science Information System

UNISIST is an acronymic term standing for the feasibility study and for the recommended future programme for a World Science Information System (46, p.v). UNISIST was created on the basis of the UNESCO/ICSU joint study on the feasibility of a world science information system accepted by the Intergovernmental Conference for the Establishment of World Information System held in Paris from 4 - 8 October 1971 (47, p.18). UNISIST has been defined by Wysocki (44) as

a continuing, flexible programme, which aims to : coordinate existing trends towards cooperation in scientific and technical information, develop the necessary conditions for systems interconnections and facilitate access to world information resources. The ultimate goal is the establishment of a flexible and loosely-connected network of information services based on voluntary cooperation (p.301).

A. UNISIST Principles

Wysocki and Tocatlian (48) outline the UNISIST basic principles as follows:

1. Unimpeded exchange of published scientific information and data among scientists of the world.
2. Promotion of compatibility, cooperative agreements and interchange of published information among the systems.
3. Cooperative development and maintenance of technical standards to facilitate interchange.
4. Development of trained manpower and information resources in all countries.
5. Hospitality to the diversity of disciplines and fields of science and technology.
6. Increased participation of the present and coming generation of scientists in the development and use of information systems.

7. Reduction of administrative and legal barriers to the flow of scientific information in the world.
8. Assistance to countries which seek access to present and future information services in the sciences (p.59).

B. UNISIST Objectives

The UNISIST programme has five broad objectives towards which specific programmes, projects and activities can be oriented.

1. To improve the tools of system interconnection.
2. To strengthen the functions and improve the performance of the institutional components of information infrastructures, namely, libraries and repositories, abstracting, indexing and translating services, and information analysis centres.
3. To develop the human resources essential to the planning and operation of future information network.
4. To provide optimal economic and political environments for the development of systems interconnectibility and cooperation.
5. To assist developing countries by helping them develop minimum bases of scientific information, and by developing pilot projects in cooperation with the United Nations agencies (46, pp.38-40).

C. UNISIST Programme Recommendations

There are twenty-two recommendations in the programme. These have been grouped into six broad areas as follows:

Group 1: Tools of systems interconnection (Rec.1-6). These six recommendations relate to the development of tools for the interconnection of existing and future systems. They range from standardization of elements of bibliographic description for machine retrieval systems, to further work on subject specification, and to the creation of world register of scientific periodicals.

Group 2: Effectiveness of information services (Rec.7-10). These recommendations are directed towards the strengthening of information infrastructures. They call for the recognition

of the strong scientific library system as an essential component of scientific transfer in modern times; for cooperation among abstracting, indexing and translation services in science; for the development of specialized information analysis centres; for the evaluation and synthesis of published information; and for the development of numerical data centres.

Group 3: Responsibilities of Professional Groups (Rec.11-14). This group has to do with the development of manpower responsible for the operation of an international information system. Under these recommendations special attention is to be paid to the coordinated training of human resources, such as authors, editors, publishers, scientists, information specialists, librarians and documentalists. The strengthening of scientific societies and their involvement in the improvement of world-wide information transfer also fall within this group.

Group 4: Institutional Environment (Rec.15-19). This set of recommendations deals with policy issues and aims at improving the economic and political environment for information services. It is particularly addressed to governments urging them a) to establish within each country, an agency to guide, stimulate and conduct the development of information resources and services under the principles and goals of UNISIST and a national information network in science and technology, using advanced processing and communication facilities; and b) to reduce unnecessary barriers such as national copyright on international flow of information.

Group 5: International Assistance to Developing Countries (Rec.20-21). These two recommendations deal with international aid to developing countries. In order to enable these countries to participate in and benefit from an international information system, they have to be assisted to achieve the necessary requirements for that which include adequate library services, nationally funded research and development programmes, higher

education institutions in science and technology and trained manpower. These recommendations suggest a few pilot projects to link developing countries with UNISIST.

Group 6: Organisation of UNISIST (Rec.22). This recommendation is directed towards UNISIST administrative bodies to be responsible for implementing the 21 recommendations.

The administrative bodies should consist of:

- a) An Intergovernmental Conference responsible for approving UNISIST's programme and reporting on their progress.
- b) An international scientific advisory committee responsible for assessing progress in communication practices and changes in user requirements, as a basis for, and as a result of UNISIST programmes.
- c) An executive office, serving as the permanent secretariate of UNISIST, responsible for preparing and administrating programmes and budgets (46, pp.41-71).

D. Beneficiaries from UNISIST

The following can benefit from the UNISIST Programme:

- 1. Individual scientists.
- 2. Sponsors of scientific research and development.
- 3. Sponsors and managers of information systems.
- 4. Science educators.
- 5. Developing countries (46, pp.80-85).

The convening of UNISIST Intergovernmental Conference in Paris from 4 to 10 October 1971 (47) can be considered as the first major step towards the implementation of UNISIST programme. Full scale implementation of UNISIST started in 1973 (49, p.33).

3.3.2.2.2 NATIS: National Information System

The concept of NATIS as an overall structure encompassing all services involved in the provision of information for all sectors of the community and for all categories of users was adopted by the Intergovernmental Conference on the Planning of National Documentation, Library and Archives Infrastructures, convened by UNESCO in Paris from 23-27 September, 1974 (50, p.14). The task of NATIS is to

ensure that all engaged in political, economic, scientific, educational, social or cultural activities receive the necessary information enabling them to render their fullest contribution to the whole community (52, p.24).

The NATIS concept implies that government should maximise the availability of all relevant information through documentation, library and archives services. It is, therefore, necessary that government should define the functions, objectives, importance and potential contributions of documentation, libraries and archives in all fields of national planning and development, conduct comprehensive surveys of these services, forecast future needs and prepare a long-term plan which should cover the legislative and financial basis for the operation and all aspects of the structure and functioning of these services, including manpower provisions, technological components and cooperative arrangements (51, p.9).

The methods to be followed in the creation and development of NATIS are embodied in twelve objectives to be carried out by national governments and four objectives for international action by UNESCO and other international organisations.

NATIS Objectives (51)A. Objectives for National Action1. A national information policy

A national information policy, reflecting the needs of all sectors of the community, and of the national community as a whole, should be formulated to guide the establishment of a national information plan, whose elements should be fully incorporated in the national development plans.

2. Stimulation of user awareness

In order to increase user awareness, appropriate bodies, including universities and other educational institutions should include in their programmes systematic instruction in the use of the information resources available in all the elements of NATIS.

3. Promotion of the reading habit

In order to foster and maintain the reading habit the network of school and public libraries within NATIS, in cooperation with the appropriate educational institutions should develop programmes specially designed to attract and sustain the interest of a wide potential clientele.

4. Assessment of users' needs

A detailed analysis should be made of the information needs of government for its tasks and of the various groups of users in such areas as industry, research and education to ensure that the national information system (NATIS) is planned to meet these needs.

5. Analysis of existing information resources

Comprehensive surveys should be undertaken of existing national documentation, library and archives resources as an essential prerequisite of sound national planning for the development of NATIS.

6. Analysis of manpower resources

Comprehensive surveys should be undertaken of existing national manpower resources as a basis for the planning of manpower provision and the forecasting of future needs for NATIS.

7. Planning the organisational structure of NATIS

The functions of all documentation, library and archives services should be coordinated through a central body (or bodies) to form the national information system (NATIS), so as to ensure the optimum use of available resources and the maximum contribution to the cultural, social and economic development of each nation.

8. Supplying manpower for NATIS

National institutions and programmes of professional education for information manpower should be established as integral parts of the national educational structure at universities or equivalent institutions of higher education, and as the principal means of supplying adequate numbers of professional staff to meet the demand for qualified personnel to operate the national information system (NATIS).

9. Planning the technological needs for NATIS

The national information plan should include adequate provision for the application of information technology, as appropriate, in the

various components of NATIS with the aim of achieving maximum utilization of existing resources and of reaching compatibility and standardization.

10. Establishing a legislative framework for NATIS

Legislative action should be taken at the earliest possible stage in support of the planning and implementation of the national information system (NATIS). This legislation should cover the conceptual basis of the system, and of its constituent elements including all specialized sub-systems.

11. Financing NATIS

Adequate financial provision should be made to ensure the effective implementation of the plan for the national information system (NATIS).

12. Universal Bibliographic Control

The concept of Universal Bibliographic Control (UBC) presupposes the establishment in each country of National Bibliographic Control with its aim to ensure that a bibliographic record for each new publication is made when the publication is issued.

B. Objectives for International Action

13. Assistance to Member States for the planning and development of NATIS

The planning and development of a national information system (NATIS) and its elements in Member States will be promoted to achieve coordination at national level and as a basis for active participation in world information system.

- (i) Methodologies will be elaborated as basic tools to guide Member States in the various phases of planning and developing NATIS;
- (ii) The application of information technology to documentation, library and archives services will be encouraged and promoted in accordance with the NATIS concept;
- (iii) The programme for professional education and training of information manpower will be revised and extended in the light of the needs of Member States in developing and implementing NATIS.

14. Promotion of Universal Bibliographic Control

Universal Bibliographic Control will be promoted by Unesco, in cooperation with IFLA, as a major policy objective to create a world-wide system for the control and exchange of information.

15. A long-term programme of action

A long-term programme of action for Unesco will be elaborated to assist Member States in the planning and establishment of coherent national information systems (NATIS), which can participate as full partners in the transfer of the rapidly growing volume and sources of documentation and information.

16. Convening of an intergovernmental conference

An intergovernmental conference will be convened in 1978 to review the progress achieved within the framework of NATIS, UNISIST and UBC programmes (pp.11-31).

3.3.2.2.3 The General Information Programme (PGI)

In order to avoid duplication and ensure complementarity between existing information programmes, systems and services; and to further international information systems, Unesco General Conference at its 19th session in November 1976 (54) decided to combine the two groups of activities of UNISIST and NATIS into one programme designated as the General Information Programme (PGI). In such a manner the objectives of UNISIST and NATIS are not to be disrupted, but to be continued and promoted in a more coordinated way under the PGI. Under the PGI the objectives of UNISIST and NATIS were combined and condensed into four principal objectives:

1. To promote the formulation of information policies and plans.
2. To promote the establishment and application of methods and norms.
3. To assist in the development of information infrastructures.
4. To promote the training of information specialists and information users (52, p.2).

In 1978, at its twentieth session, Unesco General Conference reformulated these objectives into five main themes:

1. Promotion of the formulation of information policies and plans at the national, regional and international level.
2. Promotion and dissemination of methods, norms and standards for information handling.
3. Contribution to the development of information infrastructures.
4. Development of specialized information systems in the field of education, culture and communication, and the natural and social sciences.
5. Promotion of the training and education of specialists in and user of information (53, pp.150-151).

Whysocki (44) estimated that the PGI involves international co-operation among 144 Member States of Unesco, and described PGI "as" the most broadly based programme in the field of information transfer (p.303).

The PGI is centrally located in Unesco. It operates under the direction of an Intergovernmental Council comprising representatives of thirty Member States. The programme is administered by the Division of the General Information Programme, which comprises an administrative unit and six functional sections, namely, Promotion of Information Policies and Planning; Programme Promotion, Evaluation and Documentation Support; Promotion of Methods, Norms and standards; Development of Information Infrastructures; Training of Specialists and Users; and Operational Section. The Director of PGI reports to the Assistant General-Director for Studies and Programmes (53, p.151).

3.3.2.2.4 Other International Information Programmes

As examples for these, one can refer to the information programmes of:

- a. OECD - Working Party on Information, Computer and Communication Policy.
- b. Commission of the European Communities - Committee for Information and Documentation in Science and Technology (CIDST).
- c. Council for Mutual Economic Assistance (CMEA) - International Scientific and Technical Information System (MSNTI).
(44, pp.303-304).

The achievements the existing international information programmes have carried out, can be summarized in the following:

1. The creation of a favourable political environment for the establishment and development of national information activities. For instance, the OECD studies of the information needs of a number of sectors of industry have led to an increase in international understanding among international specialists in this sector.
2. The contribution of these programmes to techniques for system interconnection. As an example is the Unesco - UNISIST work in the field of common communications formats.
3. The initiation of new projects on the international level and the setting up of common organisations or institutions. Examples are the establishment of International Serial Data Systems (ISDS) and the European Information Network (EURONET)
4. The technical assistance to developing countries which can only be met by international programmes particularly those within the United Nations (46, pp.305-6).

3.3.2.3 International Professional Associations

Historically speaking, the establishment of such bodies can be regarded as the oldest form of cooperation in the information field. It is axiomatic that common problems may bring those having them together in an attempt to solve them. In our concern, professionals in the information field attempted to get together in a forum so that they might communicate with each other and exchange ideas that might lead to resolutions for the problems they face in their profession. Their attempts have resulted in the foundation of many professional associations which, for decades, have carried out remarkable achievements for the well-being and progress of the information field. For instance, the British Royal Society, as early as 1858, was undertaking a 'Manuscripts

Catalogue of the Titles of the Scientific Periodicals in all languages' (10, p.15), and as a part of its international scope, in July 1896, this Society convened an international conference to consider the publication of a complete catalogue of original scientific literature to meet the needs of scientific research (54, p.623). According to Fang and Songe (55), the world population of professional associations is 509 of which 59 are international associations with 24,612 members and 37 official journals being published. The leading associations in this respect are:

1. The International Federation for Documentation (FID);
2. The International Federation of Library Associations and Institutions (IFLA); and
3. The International Council on Archives (ICA).

1. FID

FID was established on Sept.2, 1895. Its main objective is to promote, through international cooperation, research in and development of documentation, which include, among other things, the organisation, storage, retrieval, dissemination and evaluation of information, however recorded, in science, technology, social sciences, arts and humanities.

Membership in FID is open to individuals and national and international organisations active in the field of documentation. Its total members is 312 (individual, 72; institutional, 240).

Its major publications are FID News bulletins, R & D. Projects in Documentation and Librarianship, International forum on Information and Documentation, and FID Directory (55, 24-25).

2. IFLA

IFLA was founded in 1927, at the 50th anniversary conference of the British Library Association.

Its main objectives are: a) to promote international understanding, cooperation, discussion, research and development in all fields of library activity, including bibliography, information services and the education of personnel; and b) to provide a body through which librarianship can be presented in matters of international interest.

Membership in IFLA is open to library associations or national and international associations with similar interests. Total members of IFLA is 986 (library associations, 160; institutions, 736).

Its major publications are its official journal, IFLA Journal; IFLA Annual; and IFLA Directory (55, p.37).

3. ICA

ICA was founded in August 1950. Its goals are:

1. To establish, maintain and strengthen relations between archivists of all countries and institutions.
2. To promote the preservation and protection of archives.
3. To facilitate the use of archives.
4. To promote, organise and coordinate archives administrative activities on an international scale.

ICA total members is 690 representing 109 countries. The major ICA publication is its official journal, Archivum (55, p.19-20).

ICA has eight regional branches: ALA, for Latin America; ARBICA, for Arab States; CARBICA, for the Caribbean region; ECARBICA, for East and Central Africa; PARBICA, for the Pacific region; SARBICA, for Southeast Asia; SWARBICA, for Southwest Asia; and WARBICA, for West Africa (56).

3.3.3 Research in Library and Information Science

Research is taken here in its widest sense, including investigations, studies, surveys and evaluated innovations. Research is an effective approach to problem-solving and information production in all fields of human activities. In our field, in 1931, Williamson (57), dean of the School of Library Service at Columbia University, stressed this point by stating that:

If the library is to rise to its opportunity as a social institution and educational force, it must, it seems to me, begin very soon to attack its problems by a thoroughgoing application of the spirit and methods of research that are being found so effective in every other field (p.8).

The British Library Act stated that:

It shall be within the functions of the Board, so far as they think it expedient for achieving the objects of this Act and generally for contributing to the efficient management of other libraries and information services, to carry out and sponsor research (58, p.101).

It has been pointed out by Peritz (59) that research on the problems and functions of librarianship started only from the latter part of the nineteenth century (p.6). However, as Whiteman (60) remarked, it was only when the Graduate Library School in the University of Chicago was established in 1928, that advanced research in librarianship became a reality (p.529), since then research has expanded remarkably and covered all fields of library and information; it is now ranging from the simple problems posed by a school library to the complicated aspects of a computer-based information system. Peritz (59) found out that from 1950 to 1975, 1272 research projects were conducted, as reported by thirty-nine professional journals from U.S., U.K., Canada and

international (p.32). In the United States the research projects undertaken by library schools, individual researchers, professional associations and foundations in five years (1959-1964) amounted to 902; a total of \$8,730,036 was invested in these projects by Federal Government (more than half of this money) and other various sources (61, p.350-51). The Ph.D. dissertations produced in the U.S. between 1930 and 1980 made a total of 912 (62, p.103).

The development of research can be seen in the increase in the number of research projects conducted in the United Kingdom. By 1957 the National Science Foundation issued the first of their series of publications on current research and development in scientific documentation with 10 projects dealing with information storage and retrieval; by 1960 there were 44; and by 1966 the number reached 288 (63, pp.539-40). In 1982, as listed in RADIALS bulletin (64), there were 606 current research projects in library and information science.

The recognition of the importance of research in library and information science can be witnessed in the money spent on this field. In the United States nine major national organisations provided \$66 million during the period 1970-1980 for over 600 research projects (65, p.32). (See figure 3.4). In the United Kingdom, the great majority of research projects are supported by the British Library, Research and Development Department which covers the whole range of information activities from primary communication through libraries and documentation services to repacking and referral (66, p.227). During the period 1970-1975, the grants awarded by this Department to research projects amounted to £3,770,300 (67).

Figure 3.4 : Funding for Library and Information Research by Nine U.S.Organisations (65)

Funding Organisation	Fundings in thousands dollars (years)									Total
	1970-71	1972-73	1974-75	1976	1977	1978	1979	1980		
National Science Foundation, Division of Information, Science and Technology	N.A.	N.A.	10,207	4237	3657	4576	4816	5570	33,063	
Dept. of Education/Office of Libraries & Learning Tech./Library Research & Demonstration Branch	2347	3028	1410	1036	1116	776	730	142	10,585	
National Library of Medicine, Extramural Grants Programme	1659	842	2091	604	803	932	268	N.A.	7,199	
Council on Library Resources, Inc.	2020	1124	1672	191	227	43	40	-0-	5,317	
Carnegie Corporation of New York	-0-	1423	404	11	515	406	635	194	3,588	
National Endowment for the Humanities	50	-0-	1803	452	35	57	262	16	2,675	
National Library Service for the Blind & Physically Handicapped, Library of Congress	N.A.	N.A.	N.A.	180	301	-0-	955	284	1,720	
Department of Education, National Institute for Education	-0-	-0-	450	-0-	130	75	442	-0-	1,097	
National Commission on Libraries & Information Science	N.A.	204	292	49	-0-	88	-0-	136	769	
TOTALS	6076	6621	18,329	6760	6784	6953	8148	6342	66,013	

Note: N.A. means the data were not available

Other evidence for the recognition of the importance of research in library and information is the establishment of library and information research centres in many academic institutions. One example is the Centre for Library and Information Management in Loughborough University of Technology. The Centre was established in 1969 with an overall aim:

to improve the effectiveness of services in the field to users through the provision of information, investigation, continuing education and consultancy services in the field of library and information management (68,p.3).

In the United States such centres were established in a number of universities during the 1960s - Illinois (1961), California (1963), Pittsburgh (1962) with the aim of focussing attention on applied research, recruiting staff with research capabilities and attracting funds from various funding organisations (61, p.353). The growth and diversity of research has led to the evolution and development of current awareness services in this field in order to help in avoiding duplications in research activities and keep researchers and other professionals abreast of research and development in their fields of interest.

More systematic information on current research and its results would help to improve the national planning of research activities while better access to the results of such research would do much to raise the level of documentation activities which can be an invaluable tool for social, economic, scientific and technical development (69, p.70).

With this in view, Unesco established the International Information System on Research in Documentation (ISORID) project in 1972, to collect, organise and disseminate information on research activities in the

field of libraries, documentation and archives. ISORID's main task is to make this information available for maximum use by research workers, documentalists, librarians and archivists (69,p.70). Such information is now being published in FID's bimonthly bulletin, "R. & D. Projects in Documentation and Librarianship" as an integral part of ISORD (70,p.1). RADIALS bulletin, published biannually by the British Library Association, provides services on current research in information and library science. The services include research projects being conducted in the United Kingdom, by British Nationals temporarily abroad; by foreigners in the United Kingdom, or registered from abroad with U.K. institutions; and foreign projects where U.K. funds or nationals are involved (64). From Volume 1, Number 1, 1983, RADIALS started appearing in the new name, 'Current Research in Library and Information Science', published quarterly with expanded coverage including research projects undertaken outside the United Kingdom (71).

The research activities with the money, time and effort devoted to them indicate the importance that information management holds.

3.3.4 Mechanization

Traditional tools and methods for information management became inadequate to cope with the information overflow and with the flood, variety and increasing complexity of demands for information by the user. Another factor which put these methods and tools into constrain, may be the short time between the moment of creating a new idea in one form or another, and the moment of losing its novelty owing to the appearance of another idea which may wholly or partially modify the first one. This has necessitated and resulted in the application of

the computer and other electronic devices in information management and use. The use of the computer was a significant turning point in the generation, management, and use of information. The first application of computers in handling information came in the 1950s though it was not until the 1960s that these devices came into their own in this field. The computer-based information systems of the 1960s were operated on a batch-mode, and the computer itself served as a device for matching the characteristics of documents (e.g. the index terms assigned to them) against the characteristics of requests for information. In 1960 machine-readable bibliographic data bases emerged. These systems were primarily designed and operated to produce printed indexes or abstracts journals, e.g. 'MEDLARS' (Medical Literature Automatic Retrieval System - USA) was the pioneering one in this respect. Printed indexes and abstracts are now produced routinely by photo-composition procedures under computer control, and many machine-readable bibliographic data bases (subject or mission oriented) now exist as a result such as those of the Chemical Abstracts Service, Biological Abstracts, the Engineering Index, and the Science Citation Index. Machine-readable data bases became on-line in the 1970s (26, pp.6-7, 10). A machine-readable data base can be used, as outlined by Lancaster (26), to:

- a - conduct retrospective searches;
- b - provide a selective dissemination of information (SDI); and
- c - generate printed indexes.

As a result of the advances in and application of information technology, automated information systems developed and increased remarkably.

Williams (71) found out that in 1965, there were about twenty data bases available to the public for information retrieval in the U.S. By 1975 the figure exceeded 300 of which fifty were on-line. The number of users, who used machine-readable data bases in 1965, was about 10,000; by 1970 the number was 100,000; in 1975 the number reached 1,000,000 on-line (p.72). Taking DIALOG system, developed by Lockheed in the United States, as an example, this grew from five data bases in 1970 to thirty in 1975. Over the same period the number of searches increased by a factor of 150 (23,p.11). In Europe, the number of data bases increased from 386 in 1975 to 1409 in 1980, as shown in figure (3.5).

Figure 3.5 : Data Bases in Europe (73, p.vi)

Year	1975	1976	1977	1978	1979	1780
No.of Data Bases	386	486	690	1101	1280	1409

The availability of on-line data bases has increased the availability and dissemination of information, particularly research information. Hersey (74) noted that in the United States there were some thirty-three million bibliographical references available for on-line searching in 1976 and fifty million in 1977, not only available for American users but also to users worldwide.

Anderla(7) estimated the annual growth rate of automated information systems to be between 24% and 27.5% (p.77). Professor Arntz (26) forecasts that the growth rate in the number of computers around 1989 will be about 30% every year (p.12).

By and large, the rapid development in the computer technology and other communication media such as telephone, satellites, television, video-tapes, discs, etc., have all combined to transform information management into a heavily technology-oriented business. This technology

has essentially changed the face of information management, particularly in the developed countries. As a result, one can see the following scene in the information universe, as set by Tell (76).

In many Western countries, using terminals in libraries and information centres is a daily routine. The tapping of a database in Italy or California is now performed in the same way as linking up with a local computer in the same building or on the same campus. On-line searches in the world are up to more than two million terminal hours a year to the 500 data bases which are publicly accessible and the immediate yearly growth of use is expected to be 30 percent (p.286).

In this section, information management, we have provided a brief review of the activities involved in managing information. The tasks of managing information require the availability of adequate qualified human resources to perform them. To meet this requirement institutions whose main goal is to prepare such human resources, have been established. According to Unesco (77) there are 402 library schools and training courses in documentation in the world.

In the U.S. alone, there are seventy graduate library schools which are regular members of the Association of American Library Schools (AALS) and 31 associate members with graduate programmes in library and information studies (78). The number of people engaged in library and information education and training in the U.S. academic institutions in 1980 amounted to 5,400 (79, p.299).

3.4 Future Developments

Two major developments are expected to take place in the information universe in future. The first is a clearer recognition of and a more dependence on information as a significant resource. The

second is the advent of paperless information systems. The first development occurs as a result of the transition of societies from industrial to post-industrial. Societies are divided into three groups - pre-industrial, industrial and post-industrial. In a pre-industrial society, economy is based on agriculture, mining, fishing and forestry - productivity depends on raw muscle power, inherited ways and one's sense of the world; in an industrial society, economy is based on manufacturing goods - productivity depends on energy which has replaced the raw muscle; and in a post-industrial society, economy is based on services defined as trade, finance, transport, health, recreation, research, education and government - productivity depends on information.

- . A post-industrial society is based on services.
Hence, it is a game between persons. What counts
is not raw muscle power, or energy but information (80, pp.126-127)

It is argued by Daniel Bell (80) that the Western developed countries stand at the threshold of a major transition in basic social structure, on the verge of a post-industrial society. Here the basic resource is knowledge not raw materials, information not energy. As this emerging society becomes increasingly dominant, the consequences of these changes for organisational development will be profound. Briefly, organisations and their managers will be faced with instantaneous access to information of enormously greater volume and time span than heretoforth, covering geographic units often global in scope. They will cope with their responsibilities through sharing in formation processing and decision-making tasks with each other and with machines in a complex artificial intellectual environment.

As information will be more and more no different from any other commodities, information industry will be a major feature of the post-industrial society. Svenorius and Witthus (79) see that the degree to which the U.S. society is already post-industrial can be measured by the size of its information industry (p.292). The second major development is the advent of paperless information systems. Paperless information systems have been conceptualized by many authors. These various conceptualizations have much in common. They all represent information storage, transmission and retrieval systems that are largely paperless - systems in which paper is replaced by microforms, computer terminals, television images, CRT (Cathode Ray Tube) displays etc., or a combination of these. These systems assume that the user will have, at his fingertips, access to the information he needs. The factors that contribute to the achievement of such systems, as outlined by Lancaster (26) are:

1. The increasing use of machine-readable input production of primary and secondary publications.
2. The rapid growth of data bases and the information services derived from them.
3. The development and growth of on-line, time-shared, interactive computer systems, and the application of these to information services.
4. The emergence of networks of connecting computers.
5. The use of on-line for indexing and cataloguing operations and for cooperative enterprises within the library world.
6. The use of on-line systems in several universities to support building and exploitation of information files by individual scientists and other professionals.
7. The development of international communication systems, using on-line facilities, by various business enterprises.

8. The increasing use of computer-aided instruction (CAI) throughout the educational process.
9. The emergence of cable television and of the use of this communications medium in interactive applications.
10. The conceptualization of a more widespread application of computer technology to scientific publishing.
11. The routine use of digital communications by press services and other disseminators of news, and the use of video-terminals in the writing and editorial functions of newspapers.
12. The wide availability and increasing use of programmes for on-line text editing.
13. Experience with the use of large text files (100 million words or more) in the legal retrieval field.
14. The clear demonstration of the technical feasibility of a completely paperless communication system within the intelligence community (pp.124-26).

In the advent of such paperless information systems, probably in the year 2000, every scientist will have an on-line terminal in his office. Perhaps he will have one in his home. The terminal will be likely to have some form of video display to receive information and some form of keyboard to transmit information. More specifically, the scientist of the future will use his terminal to receive text, to compose text, to search for a text, to seek the answer to factual questions, to build information files, and to converse with colleagues. The terminal will provide a single point of entry to a wide range of capabilities that will substitute, wholly or partially, for many activities that are handled in different ways : the writing of letters, the receipt of mail, the composition and distribution of research reports, the receipt of science journals, the collection of documents in personal files, the searching of library catalogue and printed indexes, the searching

of handbooks of scientific data, visits to libraries and other information centres, and even certain types of professional conversations now conducted through the telephone or face-to-face encounter. It is expected that through such information systems, articles can be submitted, reviewed and accepted for publication (27, pp.105-6,109).

Licklider (81), discussing libraries of the future, conceptualized a system known as Symbiont. Symbiont was visualized as a system based on the use of on-line computer facilities. Through individual on-line terminals users could search documents in machine-readable form, extract or highlight passages of text by the use of the light pen, annotate documents, compose graphs from tabulated data, and perform various other manipulations of text or numerical data (pp.177-78). Landau, quoted by Lancaster (26), described a "library in a desk". The executive type of desk incorporates two modules, one a computer terminal and the other a microfilm reader. The terminal is potentially connectable to any on-line retrieval system through a normal telephone circuit. After the user identifies relevant document references by searching the remote machine-readable files accessible through his terminal, he can turn to the microform store (in the desk drawers) and mount the selected microform (microfiche or microfilm cartridge) in the viewer-selector for rapid viewing of the desired documents. Various levels of sophistication are possible in the equipment. The least elaborate model would have a typewriter terminal and a manual microform viewer. A more elaborate model would incorporate a CRT (Cathode Ray Tube) display and a microform viewer having automatic image selection and printing capabilities. In the most elaborate

configuration of this type, the user might view documents images transmitted to his station from a remote microform store by means of closed-circuit television or some other transmission device (pp.2-3). Feathering (82) sees that existing technologies raise the probability of wall-less 'electronic libraries' in the future, and calls librarians and publishers to be prepared for institutional reorganisation (p.19).

At home, as predicted by Anderla (7), before the year 2000 (probably 1990) installed electronic terminals will be as common as telephones (p.73). In such a situation, for instance, personalized computer-based newspaper, one completely up to date and capable of bringing to a particular user the news items that he wants to see, may be feasible. (83, p.88). Badgikian (84) suggested that the production of major newspapers in digital form may lead to alternative methods of news distribution, including the possibility of transmitting a newspaper or selected portions of it to a customer's television set (p.200). This is already existing in an experimental stage in the BBC CEEFAX and the ITN ORACLE in the U.K. What, then, are the functions of library and information professionals and what qualifications they should have. Lancaster (26) points out that in a paperless system, people will be needed for the indexing and abstracting of primary literature. They will also be needed to construct indexing vocabularies, and other tools required for the efficient exploitation of machine-readable resources. Training of customers in the use of machine-readable resources could become a major activity of library and information staff in the year 2000 (pp.157-58).

Considering the needs for staff to develop, design and operate future information systems, Schur (85) thinks that what is needed is staff

with a broad basic education in information science and technology, flexible and adaptable, with scientific and technical expertise and ability, of considerable imagination and sound judgement so as to advance the theory and practice of information work in all countries (p.16). The ideal information manager of the future is described by Saunders (86) as that who will need polymath qualities: scientific knowledge, with the scientist's feeling for numeracy; the economist's ability to equate the marginal returns from his resources; the information specialist's knowledge of information industry and the good arts man's ability to communicate lucidly and effectively (p.61):

According to the problems and challenges that will be faced in the information field in future, Summit (87), identified the following:

1. Document delivery
2. Multiple data base management.
3. Education of the information needy.
4. International trade in information.
5. Government in the marketplace (p.224).

3.5 Summary and Conclusion

Information is growing exponentially. The world store of information in terms of documents of all types and forms is breathtaking. As a resource, information requires to be well managed in order to be well utilized for the betterment of the quality of the life of societies. Since early days methods and tools have been developed and applied to manage man's intellectual production. However, the

traditional methods and tools became inadequate to cope with the growing volume of information. Consequently, new ones have evolved and developed, and at present we can witness the application of sophisticated technology in information management and use. The present trends in information generation, management and use show the possibility of the advent of paperless information systems and publishing in the future. However, printed publications may still exist in the areas of culture and recreation. The problems of the information field in future will be less technical but more and more administrative and political ones. The dependence on and the recognition of information as a resource will be greater as societies move from industrial to post-industrial. Information industry, for the greater part, will still be virtually controlled by the developed countries due to their human and financial resources and technical expertise. Developing countries will still have the economic and technical problems that hamper their participation in and benefit from the sophisticated information systems being developed in the world. Thus, the existing information gap between the developed and developing countries may still exist with the probability of becoming wider in the future.

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CHAPTER FOURIRAQ : AN INTRODUCTORY BACKGROUND SURVEY4.1 Introduction

Library and information services are closely linked with the economic conditions, with the national goals and aspirations, with all information generating institutions including research and publishing, and with the whole framework of culture and education of the society in which these services are established. Therefore, it is necessary to understand these factors in order to understand what library and information services have been and to formulate objective guidelines for their development. In Chapter One, these factors have been considered generally with regard to developing countries. Being a developing country, Iraq shares her counterparts in many of the aspects discussed. However, in this chapter, an attempt will be made to consider those aspects that are related particularly to Iraq. The most important aspects to be understood about Iraq include the following:

4.2 Physical and Social Geography

AL-Jumhuriya AL-Iraqiya (the Republic of Iraq) is an independent Arab country of the Middle East. In early history Iraq was known as Mesopotamia (the land between two rivers). The name Mesopotamia indicates the main physical features of the country - the presence of the two river valleys of the Tigris and Euphrates. Iraq is situated in the southwest of Asia to the north-east of the

Arab Homeland. It is bounded on the north by Turkey, on the west by Syria, Jordan and Saudi Arabia, on the east by Iran, and on the south by Kuwait, Arabian Gulf and Saudi Arabia. Because of its geographical position, Iraq has been a bridge between three continents, Asia, Africa and Europe, and between the Indian Ocean and the Mediterranean. It is therefore, the shortest land route between Europe and South East Asia. Iraq can be divided roughly into three regions: the mountainous north and north-east, about 20% of the whole country; a central largely limestone plateau representing 59% of the area; and the southern flat lowland alluvial plain. The main water resources in Iraq are the River Tigris and its tributaries, the River Euphrates and Shatt AL-Arab. The Tigris which rises in Turkey is 1,718 kilometres long, of which 1,418 are in Iraq. The Euphrates also rises in Turkey and flows first through Syria. It is 2,300 kilometres long, of which 1,213 are in Iraq. The Shatt AL-Arab, from the two rivers' confluence to the Arabian Gulf, is 110 kilometres long. Iraq covers an area of 438,446 square kilometres (1, p.10-11). The area includes 924 square kilometres of territorial waters and 3,522 square kilometres of Iraq's share in the Neutral Zone. The Neutral Zone lies between Iraq and Saudi Arabia, and is administered jointly by the two countries. Nomads move freely through it but there are no permanent inhabitants. Iraq is administratively divided into eighteen governorates three of which are in the Autonomous Kurdish Region (2, p.566) (see figure 4.1 & 4.2).

Figure 4.1 : The Republic of Iraq.

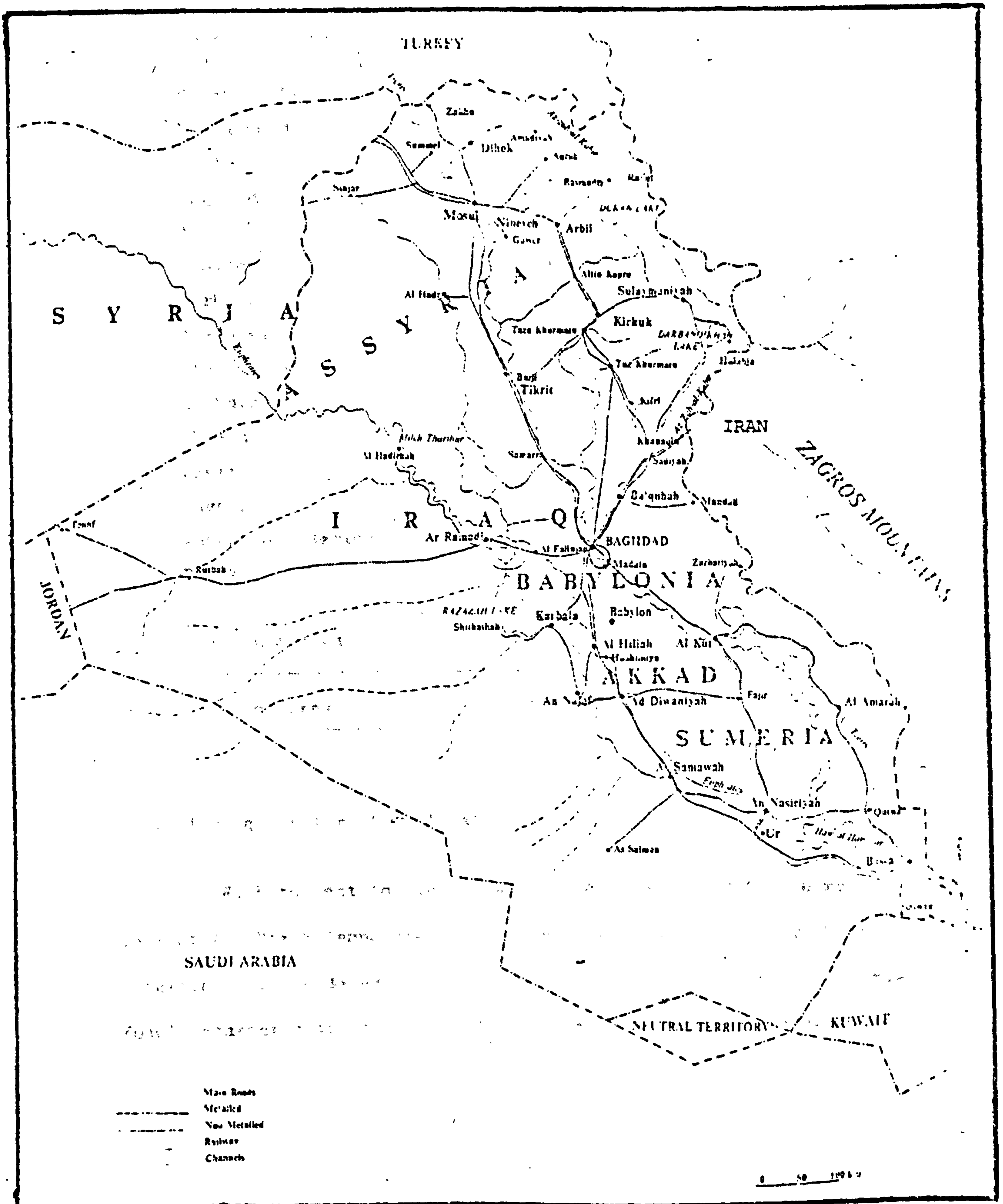


Figure 4.2 : Governorates of Iraq

Governorate	Area* (Sq.Km.)
Nineveh	41,320
Salah AL-Deen	21,326
AL-Ta'meem	9,426
Diala	19,947
Baghdad	5,023
Anbar	89,540
Babylon	5,503
Kerbela	52,865
AL-Najef	26,834
AL-Qadisiya	8,569
AL-Muthana	49,206
Thi-Qar	13,668
Wasit	17,922
Maysan	16,774
Autonomous Region:	
D'hok	6,374
Arbil	14,428
AL-Sulaimaniya	16,482
Total of area	434,000

* Excluding the territorial waters and the Neutral Zone.

With respect to the climate, Iraq is situated in the warmer part of the North Temperate Zone between latitudes 29.5 - 37.25 and longitude 38.45 - 45.48. Therefore, the climate of Iraq has all the Zone's characteristics. Day and night vary considerably in length

according to the seasons, of which summer and winter dominate the climate. The summer usually lasts from May to October with an average temperature of $36^{\circ} - 43^{\circ}\text{C}$. in the central and southern regions. In the north the temperature in summer ranges between ($28^{\circ} - 31^{\circ}\text{C}$). Winter lasts from November to early March, with an average temperature of $6^{\circ} - 15^{\circ}\text{C}$. Rain usually falls in winter and spring. Heavy rains fall in the mountainous area in the north with an annual average of about 40 inches. There are also heavy falls of snow in January on the high mountains. Autumn and Spring are very short with moderate temperature of about $18^{\circ} - 20^{\circ}\text{C}$ (1,p.10).

According to the general census of 1977, the population of Iraq totalled 12,129,497 inhabitants. The urban population totalled 7,646,054 of whom 3,205,645 live in the Capital, Baghdad. The 1977 census shows that 19.6% of the total population are illiterate. The population density for the whole country is about 27.7 people per square kilometre. The number of economically active people is 3,133,939 (3,p.37,36). The World Bank estimated that the population of Iraq increased by an average of 3.4% a year during 1970-1977 (4,p.426). About 80% of the population speak Arabic which is the official language of Iraq. About 15% speak Kurdish which is the current language in the Kurdish Autonomous Region. Other languages such as Syriac, Turkoman and Armenian are spoken by small minorities. The foreign language most widely used is English. About 95% of the population are Muslims. There are other religious communities of which the Christian community is the largest. All Iraqi citizens enjoy by law full freedom in religious creed and practice.

4.3 History and Government

This section is principally concerned with political history. The civilizations and their achievements that developed in Iraq through history will be considered in Chapter Five under the libraries that existed in different periods of the history of Iraq.

In the story of human civilization Iraq occupies an outstanding place. Probably from about five thousand years before Christ, Iraq (ancient Mesopotamia) had witnessed the birth of the first human main civilizations. The Sumerians who lived in the alluvial plain of the south, achieved urban civilization with the building of their great cities of Ur, Eridu, Uruk and Nuffar which started to appear from about 4000 B.C. These cities were well-planned, protected by massive walls and battlements, and studded with temples. In the early third millennium, the Sumerians created the first military establishment and probably even the first two-house parliament. Sumerian cities were independent from one another, and each was governed by a ruler holding a religious and secular sway over his subject. Later, royal dynasties appeared, and parts of the country were unified under certain city-states, famous among which were Lagash, founded by Ur-Nanshi (c.2520 B.C.), and Ur, founded by Ur-Nammo (2111-2094 B.C.). Contemporary with the Sumerians were the Akkadians, the first of the Arabian tribes that moved north from the Arabian Peninsula and settled in Iraq. They seized power around 2350 B.C. under the leadership of King Sargon (2350 - 2295 B.C.) the first founder of an empire known to history. Having established

his rule over the city-states of Iraq, he soon spread his rule over Syria, Anatolia and the Arabian Gulf. The Akkadian Empire lasted for two centuries through which great achievements were carried out in economy, road building and arts. By their successive conquests, the Akkadians could spread their culture over all the Middle East and thus the worship of their goddess Ishtar prevailed throughout the area (1, pp.12-13). After the end of the Akkadian Empire in 2159 B.C., a period of rule by the Kuteens (or Gutí) - a mountain people was followed by the Babylonians (1894 - 1594 B.C.). The Babylonians were the second of the tribes that came from the Arabian Peninsula (5, p.5). Their three centuries of rule witnessed a remarkable flourishing civilization, particularly during the reign of King Hammurabi (1792-1750 B.C.). Hammurabi built up a far-flung empire that included the whole of Mesopotamia, Syria, as far as the Mediterranean. Beside his military prowess Hammurabi showed an excellent skill in administrative and social matters. He devoted his care to his capital, Babylon and regulated the relationships between the individual and his society on the one hand and gods on the other in one code of laws known as the 'Code of Hammurabi'.

At the turn of the 16th century B.C. the empire became so weak that the Kassites, a mountainous tribe inhabiting the north-eastern part of Iraq, swooped down and captured Babylon. For about five centuries they ruled the central and southern parts of Iraq. The Kassites contributed nothing new or creative to the country's civilization which they merely copied and maintained as best as they could. They built themselves a capital named after one of their Kings,

Dur Kurigalzu the ruins of which are still standing in the west of Baghdad and known today as Agargouf. The Kassites seem to have had extensive international relations with the countries of the ancient East, especially at the time of the Egyptian Pharaoh Akhenaton.

After the Kassites, came the Assyrian era in the first millennium B.C. The Assyrians were the third of the tribes that migrated from the Arabian Peninsula and settle in the north of Iraq. The Assyrians were to make their strong imprint on the later history of Iraq by their military conquests and warlike empire. In their first capital, Ashur, they revealed their genius for centralized government in the administration of vast domains and the development of the arts of war. They developed the most powerful empire of the time. Their cities such as Nineveh, Nimrud, Arbela and Khorsabad were strong military holds as well as intellectual and commercial centres. Among their famous Kings was Ashurnasirpal (883-859) who rebuilt and enlarged Nimrud and made it his capital. The other famous Kings were Sargon II (722-705 B.C.), Sennacherib (705-681 B.C.) and Ashurbanipal (668-631 B.C.). Sennacherib made Nineveh his capital and built a twelve-kilometre wall around it with fifteen walls. During the reign of Ashurbanipal, the Assyrian civilization reached its peak both in intellectual and material aspects. This can be witnessed, for example, in the development of the great library of Ashurbanipal, which was a centre for preserving and disseminating of ancient learning. In 612 B.C. the Chaldeans who were ruling Babylon, captured the Assyrian capital, Nineveh. The Assyrians might have come to an end. The Chaldean King, Nebuchadnezzar (605-562), had

embarked many conquests abroad and construction at home. He made his capital Babylon, the most famous city of his time. Its Hanging Gardens have always been called one of the wonders of the world (1, pp.14-16). In 539 the Persians seized the area and ruled for about two centuries. In 327 B.C. Alexander the Great brought the Persian rule to an end (6, p.170). From 539 B.C. Iraq became a venue for successive foreign dynasties either of the Byzantines or the Persian Sassanids until 637 A.D.

With the advent of Islam in the 7th century A.D., the Arabs won great victories against the Byzantines and the Persian Sassanids. In 637 A.D. the Arabs liberated Iraq from the Persians after the battle of AL-Qadisiya and established an Islamic rule as a part of the empire that the Arabs had established (5, p.8). Dunlop (7) states that:

We had seen an Arab Empire, effective in regions so far apart as Spain, even France, in the west, and Turkestan and India, even China in the east. The Arabs have become a world state, the greatest of that age, in size comparable with or rather superior to the Roman Empire at its greatest extent (p.18).

When the centre of the Empire passed from the Umayyads to the Abbasids in 750 A.D., the Arab's golden age began. The civilization achieved by the Arabs, particularly during the Abbasids age (750 - 1258 A.D.) was distinguished for its achievements in science, culture, trade and military and political power. Iraq, especially its capital, Baghdad, was the centre of that civilization (8). On this point Atiya (9) wrote:

....the Arabs at the peak of their creative effort in Damascus and Baghdad, in Toledo and Cordova, they led the World in civilization, and whether by what they originated themselves or

what they learned and translated from ancient Greece, Persia and India, played a vital role in the continuity of human progress (p.50).

The continuity of the Arab civilization was interrupted by various political factors which gradually weakened the whole nation.

Non-Arab groups managed to seize power within the framework of the Caliphate, involving the various regions of the empire in bitter conflicts not only between themselves but also with the Caliph himself. Much effort was wasted on settling regional fights and stabilizing the Caliph's central authority. The alien groups, indifferent to the civilized values which the Arabs struggled to maintain, caused gradual chaos within the state until Iraq fell easily to the armies of Hulagu in 1258 A.D. (1, p.17). The Mongol hordes reduced the splendour of Iraq into ruin. The canal system was destroyed, the desert gradually encroached on the farmland; security was absent; the population decreased rapidly and nomadism spread. This era is considered the darkest period in Iraq's history (10, p.xviii).

In the seventeenth century the Arab region came under the rule of the Ottoman Empire. In 1539 the Ottoman Turks under Sulaiman the Magnificent invaded Iraq. With the exception of a short period (1621-38) the country remained an insignificant Ottoman province until the First World War. The Ottoman rule was characterized by weakness and corruption. Governors were virtually independent from the central authorities, tribal chieftains ravaged the countryside, warred against each other, and were a constant menace to the cities. In the nineteenth century some measures of reform were undertaken. The

country was reorganised into three administrative provinces.

The bureaucracy and financial arrangements were improved. During the governorship of Midhat Pasha (1869-1872), an enlightened reformer, land tenure reform was initiated, a more effective police system introduced, and an attempt at town-planning and at enforcement of modern laws was made. In addition, a few secular schools were opened, and the tribes were brought under control. (10, p.xviii).

In general, the four centuries of the Ottoman rule over the Arab region is regarded a dark period in the Arab history. Under that rule the Arab region became in a state of economic, political and intellectual stagnation or decline. However, the Arab region was not partitioned among a number of different states but was entirely incorporated in the Ottoman Empire, so that the fundamental unity of this region was preserved within a common political framework (9,p.48). The Arab region remained under the Ottoman rule until the First World War. In the First World War the Allies put an end to the Ottoman Empire. The British troops occupied Iraq in 1917, and at the San Remo Conference in April 1920 Iraq was awarded to Britain as a mandated territory (10, p.xix). Thus foreign occupation of the Arab region was passed from the Ottoman Turks to the West. While in the Ottoman rule the Arab region was incorporated into the Ottoman Empire as a whole, under the West it was partitioned among different states. France occupied North Africa, Syria and Lebanon; Britain occupied Iraq, Sudan, Egypt and the Arabian Gulf; while Italy occupied Libya (11, pp.118-54). The Iraqi nationalist movement which had grown during the Ottoman rule, strengthened and extended during the British

occupation. It was expressed in fighting and establishing political organisations. Consequently in October 1920 the British military rule was terminated. An Arab Council of State, advised by the British officials and responsible for the administration came into being. In 1921 Iraq became a Kingdom (4, p.417). In 1932, Iraq became an independent state and joined the League of Nations (now the United Nations) (12, p.1).

On 14 July 1958, the Iraqi monarchy was overthrown and the Republic was established. The 1958 Revolution released the country from every type of foreign interference and initiated a law for agrarian reform and a programme for industrialisation. But the administration led by General Kassim turned into a military dictatorship. On 8 February 1963, the Arab Baath Socialist Party led an armed popular uprising which put an end to the Kassim regime. The aim was to restore the Pan-Arab and socialist character of the 1958 Revolution. This attempt was stopped on 18 November 1963 when a group of right-wing military elements carried out a coup d'etat and established a reactionary military regime which oppressed the Iraqi people and tried to restore foreign control on the country. On 17 July 1968, the Arab Baath Socialist Party led the second revolution in five years and succeeded in establishing a socialist and Pan-Arab national system of government. This Revolution has committed itself to the stability and prosperity of the country. The unstable political situation that Iraq had undergone during the period 1958-1968 had its very great negative impact on the country's national development movement in all its aspects.

With respect to the government, the highest authority in the country rests with the Revolutionary Command Council (RCC) consisting of nine members, and identical with the Iraq Regional Command of the Arab Ba'ath Socialist Party. The President (elected by a two-third majority of the RCC) already chief of the State and head of the government, is also the president of the RCC, secretary of the Iraq Regional Command of the Arab Ba'ath Socialist Party, and the Supreme Commander of the Armed Forces. The day-to-day running of the country is carried out by the Council of Ministers. There is also a 250-member National Assembly for a four-year session, and a 50-member Kurdish Legislative Council for a three-year session for the Kurdish Autonomous Region, both to be elected by direct, free and secret ballot. Elections for the National Assembly took place on 20 June 1980, and for the Kurdish Legislative Council on 11 September 1980.

4.4 Economic Conditions

The present political economy of Iraq is founded on socialism. The State controls the greater part of economic activities. The State has adopted an economic policy based on planning. Accordingly annual and five-year plans have been drawn up with large amounts of money allocated to these plans particularly since the nationalisation of oil in 1972 when substantial increases in Iraq revenues took place as a result. Allocations for the 1965 - 1969 five-year plan were ^{million} 631 Iraqi Dinars (1.D. - on average, an 1.D. = £1.80). This amount rose to I.D. 3.8 billion for the 1970-1975 plan and to I.D. 99.9 billion

for the 1976-1980 plan (13). The Iraqi economy is principally based on agriculture, industry and oil production.

Agriculture was the mainstay of Iraqi economy until oil production began on a large scale. However, it is still considered as one of the most important economical activities in Iraq. Agriculture accounts for 14% of the national income and employs about half of the country's labour force (14, p.102). For this reason the government has exerted great efforts to raise productivity, to maintain agricultural self-sufficiency, and to solve salinity problems which affect the irrigated land. The 1976-1980 five-year plan (15) has given a high priority to the agricultural sector, aiming at raising the productivity of agricultural crops by offering financial and technical facilities to the farmers; and solving the irrigation and soil problems (pp.23,25). The high priority attention given by the State to the agriculture is witnessed in the large investments in this sector. Available data shows that investment in agriculture in 1977 totalled I.D. 379.877 million. Because of the continued investments and Iraq's plentiful supply of irrigation water and fertile land, agriculture in Iraq is among the most developed in the region. One of the features of the agricultural sector in Iraq is that of the collective and cooperative farms which have been promoted by the State since 1968. In 1979 there were 1987 cooperatives and 79 collectives. Giant agricultural complexes are being undertaken, one of the biggest in the country is called AL-Dujaila. Mechanization has been introduced to this sector on a considerable scale. In the field of irrigation, for instance, modern technology has been used in canalisation

and drainage. Under the 1981-1985 national development plan, the aim is that all irrigation projects will become fully mechanized(13).

With respect to industry, Iraq has been seeking to strengthen its economy by developing its industrial sector. Until early 1970's Iraq has had few industries apart from oil production. In Baghdad the large enterprises were concentrated on electricity and water supply, and the building materials industry. In addition there was a large number of small-unit industries concerned with food and drink processing, cigarette-making, textile, furniture, shoe-making, chemicals, jewellery and various metal manufactures. Recently the government has given a high priority to industrialization in its national development plans. This attention stems from the realisation on the part of the political leadership and economists in Iraq that concentrating on a limited range of primary exports (mainly oil) faces the risk that the market for them may have limited prospects. Furthermore, it is a well-realised fact in Iraq that oil, which now constitutes the greater part of the country's revenues, is a diminishing resource. On this premise the country should diversify its sources of revenue from different industrial exports, e.g. textile, fertilizers, cement, drugs, petro-chemicals, leather products, etc. The 1976-1980 development plan(15) ensured Iraq's entry into the domain of heavy industry. The aim is to reduce the dependence on oil as the main source of national income (pp.40-41). Numerous industrial plants have been established with many others under construction. The following may be mentioned as examples:

- The Petrochemical Plant at Basra
- The Phosphate Fertilizers Plant at Mishraq, Nineveh.
- The Textile Plant at Hindiya, Babylon.
- The Cement Plant at Haman-AL-ALIL, Nineveh.
- The Electronic Factory in Baghdad.
- The Tractor Assembly at AL-Iskandariya, Babylon.
- The Drug Factory, at Sammara, Salah AL-Deen
- The Glass Factory, at AL-Ramadi, Anbar
- The Brick Factory, at AL-Amara, Maysan.
- The Wire and Cable Plant, at AL-Nasriya, Thi-Qar.
- The Paper Plant, at Basra.

Oil is the most important element of the Iraq's economy. Iraq is an oil rich country. It is the third largest country in OPEC as regards oil reserves, and the World's second crude oil supplier after Saudi Arabia. Oil accounts for four-fifth of the country's foreign exchange receipts, and for more than 90% of export earnings (8, p.101). The oil production has largely increased after the nationalization of oil in 1972. Iraqi oil production rose from 2.21 million barrels a day (b/d) in 1977, to 2.6 million b/d in 1979, while the revenues rose from 9,500 million U.S. dollars to 21,200 million over the same period (2, p.565). Since the oil has been the most important wealth of Iraq, the projects in this sector are many and large. The largest are those dealing with petrochemical industries and gas liquefaction and processing. The value of the oil production contribute about 60% to the national income. In 1979 the national income reached I.D. 9.972

billion as against I.D. 850 million in 1967, an annual increase of 27.7%. The per capita income rose over the same period from I.D. 92.3 to I.D. 763.8 representing an annual increase of 23.5%. Salaries and wages have increased by 122% (13).

4.5 Education

Iraq witnessed the first educational system in the world when the first school with a systematic curricula and a specialized staff was established by Hammurabi (1792-1750 B.C.) (16, p.212). During the Islamic rule, particularly under the Abbasids, education flourished so that Baghdad became a centre for intellectual activities (as will be seen in Chapter Five, Section 5.2.1). The Mongols invasion of Iraq in 1258 had brought almost all learning institutions into a complete destruction. Under the Ottoman rule (1539-1917) education in Iraq was stagnant, ad hoc, and without any defined aims or objectives. The educational system consisted only of religious schools housed in mosques. However, some secular public schools were established, thus marking the beginning of primary education in Iraq. These schools were unpopular simply because the language of instruction was Turkish. The number of pupils attending schools in 1913 was only about 6000. After the First World War, Iraq came under the British mandate (1920-1932). During this period primary schools began to expand and secondary schools for boys were opened in major Iraqi cities. The real beginning of a modern educational system in Iraq was after the establishment of Iraqi Kingdom in 1921 (16, pp.213-214).

Higher education in Iraq started when the College of Law was established in 1918. The establishment of colleges and higher institutions followed. The Higher Teachers Training College was established in 1923, the College of Medicine in 1927, the College of Pharmacy in 1936 and so on, until 1958 when Baghdad University was established by incorporating the existing colleges of the time. After that came the establishment of other universities: Mosul (1959), Mustansiriya (1963), Basrah (1967), Sulaimaniya (1968), and the University of Technology (1975) (17).

It was not until 1958 that education was given priority. Educational planning and policies were drawn up and educational institutions were remarkably expanded at all levels. Previously, education was divorced from its environment, scientific studies were very limited, and higher education was confined entirely to the upper class of society. The Iraqis continued to be unconscious of their position in life; they little knew that under their feet lay valuable resources. The Iraqi school remained stagnant and retarded; its real mission was not appreciated nor was there a genuine conception of education and culture. The present government has committed itself vigorously to the development of education in terms of quality and quantity. Consequently clear, sound and defined philosophy, policy and objectives of education have been drawn up and adopted.

During the period 1974-1976, major decisions were promulgated which constituted a landmark in the history of education in Iraq.

The first was the decision of the Revolutionary Command Council announcing free education for all at all levels. The second was the nationalisation

of private educational institutions and their transfer to the state. The third was the Law No.118, 1976, announcing compulsory education for all children who were six years old at the beginning of the academic year (18, p.26). The large expansion in education during recent years can be seen in the rapid growth in the numbers of students, educational institutions, teaching staff and expenditure on education. For instance, in 1971/72 the number of students at all levels was 1,576,717; in 1980/1981 this number had increased to 3,826,091 (19). (See Figure 4.3). Expenditure on education has expanded substantially. The education budget has risen from I.D. 78 million in the 1970-1975 five-year plan to I.D. 726 million in the 1976-1980 plan, representing an increase of 831% (13).

Another indication of the spread of education in Iraq recently is the fall in the number of illiterate people. According to Unesco (20), in 1965, 75.8% of the Iraqi population were illiterate. In 1977, only about 19.6% of the Iraqi population were illiterate (3, p.27). To eradicate illiteracy among this 19.6% of Iraqi population (2,212,630 citizens of 15-45 years of age) a national comprehensive illiteracy campaign was launched on 1 December 1978 with a budget of I.D.66,951,000. The campaign aimed at enabling this number of illiterate people to read and write within a period of thirty-six months, ending on 31 October 1981 (21, p.2).

The Ministry of Education is responsible for pre-primary, primary, secondary and vocational education besides teacher training schools. The Ministry of Higher Education is responsible for Universities and technical institutes. The general educational ladder

Figure 4.3 : Education in Iraq : 1980/1981 (19).

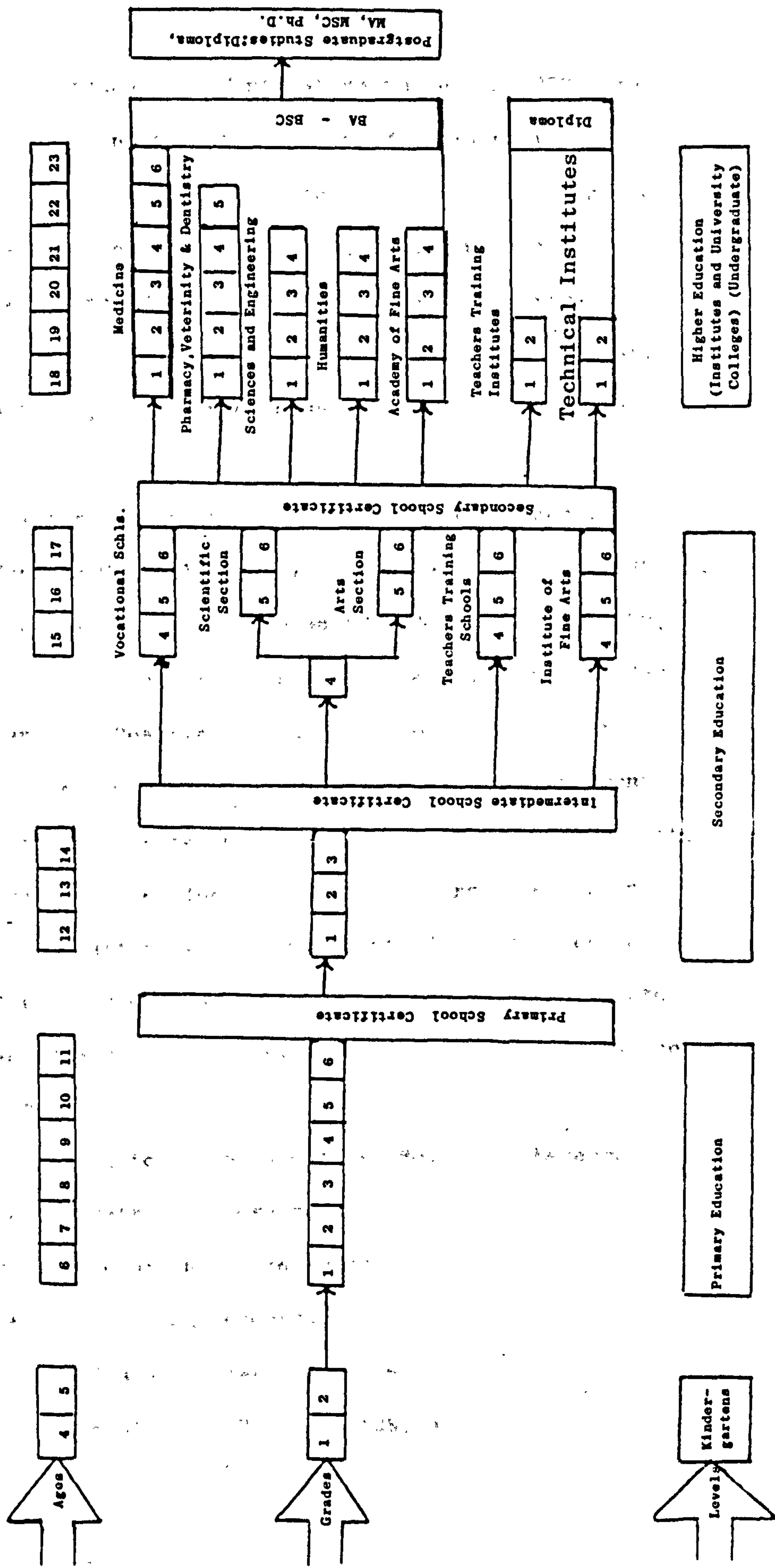
Education Level		Number of Schools	Number of Teaching Staff	Number of Students	
Kindergartens		387	32 35	76 507	
Primary		11 280	93 917	2 612 332	
Secondary	Academic Secondary	1 891	28 453	950 142	
	Vocational	Industrial	2 290	31 182	
		Agricultural	30	1 054	9 010
		Commercial	50	806	16 643
Teachers Training Schools		36	814	21 892	
Teachers Training Institutes		15	188	4 279	
Higher Education	Technical Institutes	26	1 888	20 648	
	Universities	6	4 627	84 456	
Total		13 784	127 272	3 827 091	

(Figure 4.4) in Iraq is of three stages - primary - secondary - higher. Although education in Iraq has substantially expanded and improved, the educational process still follows the traditional "chalk and talk" method of teaching. This has isolated the library from playing its role in the educational process and eventually hampered its development.

4.6 Research Activities

There is now a growing acceptance among Iraqi politicians and educated people of the importance of science and technology for the country's development and that through scientific research problems in this field can be solved and knowledge be generated. This acceptance can be evidenced by the establishment of a) the Council for Scientific Research in 1963 (22, p.3); b) postgraduate programmes in Iraqi Universities, starting in 1960/61 in Baghdad University (23, p.179); and c) research and study units in the major governmental organisations (24, p.6). To set the scene of research activities and facilities in Iraq we may look at the two major centres where principally research is undertaken, namely, the Iraqi Universities and the Council for Scientific Research. Scientific research is traditionally a product of the university, which has always been the natural environment of research. In Iraq, universities have traditionally been centres of teaching. University teaching staff have had no opportunity to do research work simply because nearly all their time is devoted to teaching. This does not mean that there are no researches conducted in the universities; on the contrary, there are, especially

Figure 4.4 : The Educational Ladder in Iraq.



those conducted by postgraduate students whose number in 1979/1980 reached 2674 (19, p.248), and by university professors particularly in the universities having research centres. For instance, Baghdad University has 9 research centres (25, p.77), Mosul University has 3 (26, p.25), and Basrah has 2 (27, p.11). The main objective of these centres is to identify the problems facing different governmental and private organisations, to analyse these problems, and to find solutions for them.

The Council for Scientific Research was established in 1963. It was called the Supreme Council for Scientific Research. In 1967, the name was changed into the Council for Scientific Research; in 1970, the name became the Foundation for Scientific Research; and in 1980 the Council for Scientific Research. The proclaimed overall aim of the Council given in its Law No.172, 1980, includes the advancement of scientific research in all fields and sectors, and in particular that which is concerned with the development of the country's wealth and resources; and the adaptation of the dimensions of the application of science and technology in a way that they can effectively contribute to the country's own development (28, p.3). The Council includes the following research centres:

1. Centre for Agricultural and Water Resources Research.
2. Centre for Petroleum Research.
3. Centre for Solar Energy Research.
4. Centre for Building Research.
5. Centre for Space and Astronomy Research.
6. Centre for Biological Research (28, p.3).

The size of the staff of the Council is shown in figure (4.5).

Figure 4.5 : Size of Staff of the Council for Scientific Research on 31 Dec.1979 (22, p.9)

Staff	Current Personnel	Post not filled
Researchers	148	25
Technicians	355	22
Administrators	119	14
Foreign Experts	25	19
Labourers	260	-

Money allocated for the Council for the fiscal year 1979 was I.D.2,1 million (22, p.17). Research projects conducted in the Council since its foundation in 1963 until the end of 1978, totalled 362. In Iraq as a whole there were 983 current research projects being conducted during 1979 in twenty-one governmental organisations and academic institutions in science and technology, social sciences, and humanities (29).

In general, the scene of research activities in Iraq seems to be inadequate for a number of reasons. As far as we are concerned in this study, we can see that one of these reasons is that researchers, particularly scientific and technological research personnel, lack the effective means of communication to know about work being done and methods used in other countries and in other parts of the country.

This is the result of the fact that library and information services in Iraq are not functioning adequately and are not meeting the needs of researchers. If research is to flourish for the benefit of Iraqi society, it has to be backed by efficient library and information services. It is axiomatic that research needs and generates information, and in order that this information may be well utilized it ought to be well organized.

4.7 Publishing

In Iraq, where writing was first initiated by the Sumerians in about 3200 B.C.; where (during the Arab golden age 750 - 1258) writing and translation spread widely, paper manufacturing was popularized, book illumination reached its zenith and calligraphy attained an unsurpassed standard, publishing now is limited and inefficient. The Meeting of Experts on the National Planning of Documentation and Library Services in Arab Countries, 1974 (30) noticed that the weak points in the book production in the Arab World lie in its irregularity, imbalance and inadequacy (p.39). This can be evidenced in book production in Iraq in 1978 (1618 titles) (31) and in 1979 (1204 titles) (20) as shown in figure (3) divided by the UDC classes.

The most striking problem facing publishing in Iraq, and may be in almost all Arab countries, is that most publishing houses are still using old techniques. This has resulted in a long time-lag between the writing of a book or a paper and its publication. For instance, "The Iraqi National Bibliography : Annual Accumulation for 1977" (32) was submitted for printing in August 1979 and received printed in 1981.

Figure 4.6 : Book Production in Iraq : 1979

UDC Classes	No.of Titles
Generalities	114
Philosophy	22
Religion	102
Social Sciences	373
Pure Sciences	31
Applied Sciences	127
Arts	58
Literature	258
Geography/History	119
Total	1204

The ultimate result of the above situation has been a low book production.

In the whole of the Arab countries, the annual output of book production (1980) has been estimated at 7,000 titles, representing 1.0% of the annual world production. This means that the annual output of these countries come to about 43 titles for every million inhabitants compared with a world rate of 164 or as much as 500 for developed countries (20).

As regards Iraqi periodicals, the total number of current periodicals titles being published (1980) amounted to 178 divided into 18 newspapers (one in English) and 160 magazines (17 in English) (33, p.9).

4.8 Summary and Conclusion

In this brief review we have set a general scene of the Iraqi major features including area, population, economy, education etc. It has been noticed throughout this scene that considerable expansion has been taking place, particularly in the economic and educational sectors. Thus it is evident that Iraq has been going through a transformation process. This process is in itself a force that develops demands for library and information services. Furthermore, one can see that there is already a sizeable market demanding library and information services, represented largely in those involved in the teaching/learning process at all levels, research workers, workers in the economic sectors, etc.

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CHAPTER FIVE

LIBRARY AND INFORMATION SERVICES IN IRAQ : HISTORICAL DEVELOPMENT

This chapter focuses on the development of library and information services from the ancient times, i.e. 3000 B.C. until the present time. Such a focus is needed so that we may better understand and evaluate the current situation of these infrastructures. The development of these infrastructures will be looked at in this chapter through four periods : the ancient period (3000 B.C. - 637 A.D.), the medieval period (637 - 1258), the period between 1258 and the First World War, the modern period.

5.1 Libraries in Ancient Iraq (3000 B.C. - 637 A.D.)

5.1.1 Introduction

Ancient Iraq (Mesopotamia) has been a centre for world civilization for more than 3000 years. Throughout the 3000 years of Mesopotamian civilization, each civilization gave birth to the next. Thus the classical Sumerian civilization influenced that of the Akkadians; and the Ur II Empire, which itself represented a Sumero-Akkadian synthesis, exercised its influence on the first quarter of the second millennium (1, p.964). After that followed the great civilization of the Babylonians (1894-1594 B.C.). Their three centuries of rule witnessed a remarkable flourishing of arts and science, trade, and a significant new codification of law. Then came the Kassites in the turn of the 16th century B.C. These people contributed nothing

original; they tried their best to copy and maintain the Babylonians' culture. The Kassites were followed by the Assyrians in the first millennium B.C. The Assyrians' civilization was remarkable for its literary and scientific achievements. One aspect of this civilization is the immense library established by King Ashurbanipal (667-628 B.C.) in his capital Nineveh (2, pp.14-16).




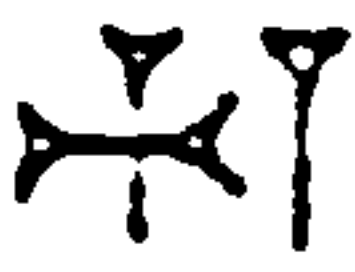


























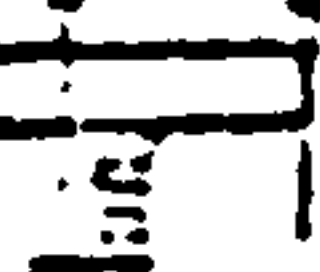









The achievements of civilization itself may be expressed in terms of its best points - moral aesthetic, scientific and literary. In sciences, the world of mathematics and astronomy owes much to the Babylonians, for instance, the sexagesimal system for the calculation of time and angles, is still current. Technical achievements were perfected in the building of the Ziggurats (temples which were tower-like pyramids) with their huge bulk. In irrigation there was practical execution supported by theoretical calculation beforehand. Legal theory flourished and was sophisticated early on, being expressed in several collections of legal decisions, the so-called codes of which the best known is the Code of Hammurabi (1, pp.964-65) who ruled Babylon from 1792 to 1750 B.C. (2, p.14). Urban civilization as we know it today began about 5000 B.C. in the plains of ancient Iraq with the building of the Summerian cities of Eridu, Ur, Uruk and Nuffar. The Summerians also invented writing in about 3200 B.C. They invented the wheel and developed the four-wheel cart for land transport. They also invented the sail boat and accordingly their sea trade flourished along the coast of the Arabian Gulf. In architecture, the Summerians were unique in the design of their Ziggurats. In administration, they achieved city-states (2, p.12). The Summerian literary

achivements were crystalized in their masterpieces of literature such as the Epic of Gilgamesh (3, p.5). Viewing life from a moral and theological point of view, ancient Mesopotamians believe that God's actions were unpredictable; hence, life on earth was uncertain. They followed a pattern of behaviour based on the principle that man must everlastingly be at pains to please and appease the Gods, so as to influence his own fate for the better. The King was no supernatural being, but a moral object in his submission to the powers of nature. To this extent, at least, all men were equal (4, p.58).

The ancient Summerians, Babylonians and Assyrians felt the need to record and preserve their history. They wrote on clay tablets. The tablets varied in shape and dimensions. While the tablet was still wet, the writer used a stylus to inscribe it with cuneiform characters (figure 5.1), for longer texts the writer used several tablets, linking them together by numbers and catchwords as is done in modern century. Clay tablets and cuneiform went hand in hand until the sixth century before Christ when the clay tablets were replaced by papyrus (5, p.65). One estimate put the number of clay tablets recovered at half a million many of which were moved to the European museums, especially the British Museum, during the British rule in Iraq (7, p.113). Of course, new findings continuously add to the total of survivals that represent this book production of ancient Iraq.

In such successive flourishing civilizations of Mesopotamia, where writing and knowledge recording were first initiated, arose the need for an agency to keep the recorded knowledge for future use. Thus the idea of the library was initiated. Shera (8) explains this in the following:

FIGURE 5.1 : The Origin and Development of a Few Cuneiform characters (6)

Original pictograph	Pictograph in position of later cuneiform	Early Babylonian	Assyrian	Original or derived meaning
				bird
				fish
				donkey
				ox
				sun
				grain
				orchard
				to plow to till
				boomerang to throw to throw down
				to road to go

Thus as graphic records came into being in response to the need of society for a medium that would communicate messages essential to the operation of the social structure, to religious doctrine or ritual, or to any other activity in which the members of the society might engage, so there arose the demand for an agency to control such of these records as needed for any reason whatever, to be preserved. From the very beginning, libraries have always been an integral part of the 'business' of operating a society, hence a legitimate collective concern (p.242).

According to Bushnel (9) the idea of the library is closely related to the study of astronomy, which was high in favour from the earliest times in Mesopotamia, and the religion of the Babylonians. This necessitated the priests being astronomers. There were observations at most of the temples and continuous records were compiled. These records were considered worthy of preservation, and thus became a nucleus for a temple library. Another factor for the creation of Mesopotamian library was the great care taken by Kings of collecting in their palaces all the chronicles of their reigns and times inscribed in clay tablets (p.11).

5.1.2 The Sumerian, Babylonian and Assyrian Libraries

5.1.2.1 The Library of Ur (3000 B.C.)

Ur was one of the famous Sumerian cities. From the excavations at this city, 400 clay tablets and about 1,000 fragments were recovered which are regarded by experts as the remains of the library of a temple school for scribes, whose number may have included women. The collection of this library included economics, religion, law, text-books and correspondence. It is thought to be of the third millennium B.C. The tablets, especially those of economics, were arranged by

subject and chronology; they had identification labels, and tags with content notes (10, pp.3-4).

5.1.2.2 The Library of Nippur (2700 - 2100 B.C.)

Nippur is situated about a hundred miles south of Babylon. From 1889 to 1898 a group of American archeologists excavated at Nippur. They unearthed about 53,000 clay tablets. Represented in these tablets were astronomy, medicine, mathematics, hymns and prayers, geographical names of mountains and places, names of planets, etc. The tablets were arranged horizontally on shelves made of wood or clay, twenty inches high and eighteen inches wide (11, p.47). What is wonderful about this library is that it had a catalogue and a shelf-list of its holdings (12, p.3). The large number of tablets discovered at Nippur, led some archeologists to the conclusion that Old Babylon maintained an impressive library (10, p.4).

5.1.2.3 The School Library of Sippara (2400 B.C.)

Sippara is now called Abu Habba. Its library was first discovered by an Iraqi archeologist, Hirmiz Rassam in 1878 - 1881 (12, p.3). In 1891 excavation was carried out at Sippara and a school library was unearthed. Although the school was not large, it was very well situated, and its rooms were over thirteen feet high. The school appears to have faced the temple, thus indicating the high esteem of learning. The teaching of reading and writing in Babylon were prevalent under the first dynasty of Babylon. In this school building a kind of rectangular bin was discovered to house a great mass of miscellaneous tablets of hymns, contracts, syllabaries, etc.

of the Golden Age of Hammurabi (9, p.73). This library has been estimated to hold a collection of 50,000 clay tablets. Its librarian was a monk (12, p.3).

5.1.2.4 The Library of Kish (2000 B.C.)

Kish is now called Tel Al-Muhaymer. It is situated between present Hilla and Kut cities. Kish was one of the earliest cities. Professor Langdon, who was in charge of the Weld-Blundell Expedition, unearthed the remains of a great library. At least twenty rooms of the library have been excavated. This library was attached to the college at Kish and flourished about 2000 B.C. The contents of the library were chiefly dictionaries, grammars and commentaries (9,p.15).

5.1.2.5 The Library of Nineveh (667-628 B.C.)

This library, which would be notable for its size, contents and arrangement in any age, is usually associated with the royal scholar, Ashurbanipal (667-678 B.C.) of Assyria. Adding to the collection begun by his grandfather, Ashurbanipal gathered in his capital city Nineveh (one of the principal governorates of present Iraq), a library of many thousands tablets. Under the direction of a royal librarian, a score or more copyists and clerks were kept busy arranging and caring for the tablets. Some of the works were historical chronologies and others were government records and correspondence, but there were also works on grammar, poetry, history, science, mythology and religion. Dictionaries of earlier cuneiform languages were included to aid the translation and copying of tablets that had been preserved for hundreds of years by Ashurbanipal's time. The clay tablets of this

library were arranged by subject and lettered on the outside according to their contents. Longer works were written on several tablets consecutively numbered, and the whole collection of tablets representing a single work were probably kept together in a separate basket. Apparently works on different subjects were kept in separate rooms and a catalogue or description of the contents of each room was written on the door or a nearby wall, giving for each work the title or first line, the number of lines, and for longer works the number of tablets upon which it was written (13, p.30). The total collection of this library has been estimated to be about 30,000 clay tablets (14, p.34).

There seems to be a little doubt that the library at Nineveh was a public library, for on one of the works recovered from its ruins, we find the following inscription:

Palace of Ashurbanipal, King of the World, King of Assyria, to whom the God, Nebo, and the Goddess, Tasmit (goddess of knowledge) gave the ears to hear, and opened the eyes to see what is the true foundation of government. They revealed to the Kings, my predecessors, this cuneiform writing, the manifestation of God, Nebo, the god of supreme intelligence; I wrote it upon tablets, I signed and arranged them, and I placed them in my palace for instruction of my subjects. Whoever my written records defaces, and his own records shall write, may Nebo all the written tablets of his records deface. (9, pp.13-14).

Unfortunately, the Assyrian civilization was virtually destroyed in wars during the seventh and sixth centuries B.C. and the magnificent library of Nineveh was reduced to ruins. Fortunately for history, the invading Persians simply pushed down the library walls, so that many of the virtually indestructible clay tablets were preserved for

25 centuries until they were unearthed by archeologists in the nineteenth century and later. Many thousands of these cuneiform tablets are preserved in the British Museum in London (13, p.31).

5.1.2.6 Other Libraries

Many other Mesopotamian libraries have been discovered in Iraq. One can refer to the following as examples:

1. The Library of Nouzi, 3,000 B.C. (southwest of the city of present-day Kirkuk)
2. The Library of Uruk (now called Al-Warka)
3. The Library of Legash (11, p.49)
4. The Library of Ashur City (1500 - 1300 B.C.) (12, p.4).

5.1.2.7 General Features of libraries in Ancient Iraq

From the previous review one can derive the following general features of libraries in ancient Iraq:

1. Libraries were mainly founded by Kings and located in their palaces and temples, however, some were freely opened to all who want to use them.
2. The tablets were either located on shelves made of wood or clay; or in jars and baskets.
3. Classification, cataloguing and shelf-lists were used in these libraries.
4. The library was held in high esteem.
5. The size of the collection and the range and variety of subject matters contained in the tablets which have survived, indicate that these ancient cities included among their citizens a large number of readers.

5.1.3 Monastery Libraries (15)

Probably no other country had more monastery libraries than Iraq. History books and literature tell us of hundreds of these

libraries. Some of these libraries were described in ancient Arabic books, others were described solely in Aramaic. Some of the monasteries were quite extensive. They were not confined only to religious services; they were institutions for monks. In these monasteries a number of scholars were bred. The rules of the monasteries required the establishment of a library in each monastery.

Such libraries contained:

1. books written or copied by monks (some monks had no other duties besides writing or copying);
2. gifts presented to the monastery; and
3. books purchased.

Most of these monasteries are ruins now and most of the books included in their libraries were either destroyed or lost under different times and conditions. Among the most famous monastery libraries is Mar Matty Monastery Library.

The monastery was founded by Mar (Saint) Matty by the end of the fourth century on a mountain twelve miles from Mosul. The library included valuable manuscripts. One of these was a translation of the Bible in Aramaic. It was written by the monk, Mubarak Al-Bartilli in 1220. This manuscript was moved from one place to another until it had been taken to Rome and remains in the Vatican Library. The library of Mar Matty monastery had faced many mishaps which affected its survival. The historian, Senior Michael (1199 A.D.) tells us that the Nestorian Bursoma (496 A.D.) burnt some of the manuscripts. The library was plundered again and again - in 1261, 1282, 1319 and 1369 A.D. In 1845, only 60 manuscripts were left. The

manuscripts of this library are now scattered in many places in the East and in the West (pp.77-78).

5.2 Libraries of Medieval Iraq (637-1258 A.D.)

5.2.1 Introduction

With the conquest of Babylon in 539 B.C., Iraq became a part of the Persian Empire and thereafter a venue for foreign dynasties. Its culture became stagnant and retrogressing as a result. With the advent of Islam in the seventh century A.D. the Arabs won great victories against the Byzantines and the Persian Sassanids. In 637 Iraq was liberated from the Persians after the battle of AL-Qadisiya (3, p.8). Within a century, the Arabs achieved an empire extending from the shores of the Atlantic Ocean to the confines of China, an empire greater than that of Rome at its Zenith.

It was not an empire that the Arabs built, but a culture as well. Heirs of the ancient civilization that flourished on the banks of the Tigris and the Euphrates, in the land of the Nile and on the eastern shore of the Mediterranean, they likewise absorbed and assimilated the main features of the Greco-Roman culture, and subsequently acted as a medium for transmitting to medieval Europe many of those influences which ultimately resulted in the awakening of the Western world and in setting it on the road towards its modern renaissance. No people in the Middle Ages contributed to human progress so much as did the Arabs. The Arabic language for many centuries in the Middle Ages was the language of learning and culture and progressive thought throughout the civilized world (16, pp.3-4).

During the Abbasids Dynasty (750 - 1258 A.D.) Baghdad became the capital of the Arab Empire and at the same time the centre of a brilliant intellectual and material civilization which spread over the

entire world and reached its peak in the tenth century. In the days of the Caliph Harun AL-Rashid (786-809) and his son Al-Mamun Baghdad attained its Golden Age. In the world of learning, Al-Mamun in 830 founded in Baghdad his famous academy, Bayt AL-Hikma (House of Wisdom) a centre for translation and learning. One of its remarkable figures was Hunayn ibn Ishaq (Joannitius, 809-873) who translated the works of Galen, Hippocrates, as well as Plato's Republic and Aristotle's Categories (16, pp.301, 310, 312-313).

Profoundly original works of the Arabs in arts and sciences contributed greatly to human civilization. For instance, in mathematics, algebra and trigonometry were invented; the zero and the Arabic numerals were introduced; logarithms were discovered. Baghdad, during its Golden Age, produced prominent figures in philosophy, sciences, medicine, arts and literature. As examples, one can refer to the following:

1. AL-Razi (Rhazes), a physician whose treatise on measles and smallpox remained a standard work for a thousand years.
2. AL-Kindi, the philosopher of the Arabs, who made intensive studies of Plato and Aristotle, and contributed an original synthesis of his philosophy.
3. Ibn AL-Haytham, optician.
4. Ibn Khaldun, historian.
5. Abu Nawas, a well-known poet at the court of Harun Al-Rashid.

In the realm of art, masterpieces of paintings, ceramics, calligraphy and architecture were produced. Among them the palace of Samarra, a city to the north of Baghdad. The first paper factory was set up in Baghdad in 795 (3, pp.8,12). In such an intellectual civilization love,

taste and respect for books and learning were great.

"My son!" said one, "whenever you stand in the market before a shop, stand only before those where weapons and books are sold" (17, p.671).

Love for books and learning resulted in a flourishing book production and the spread of booksellers.

In 891 Baghdad alone had over a hundred book-dealers congregated in one street. Many of these were small booths by the mosques, but some were centres for connoisseurs and bibliophiles.

The booksellers were often calligraphers, copyists and literary who used their shops, not only as stores but also as centres for literary discussion. Ibn AL-Nadim (955), also called Warraq (stationer), was himself a librarian or a book-dealer to whose famous index we possibly owe that scholarly and remarkable work, AL-Fihrist (the first known bibliography of Arabic books) (16, p.414).

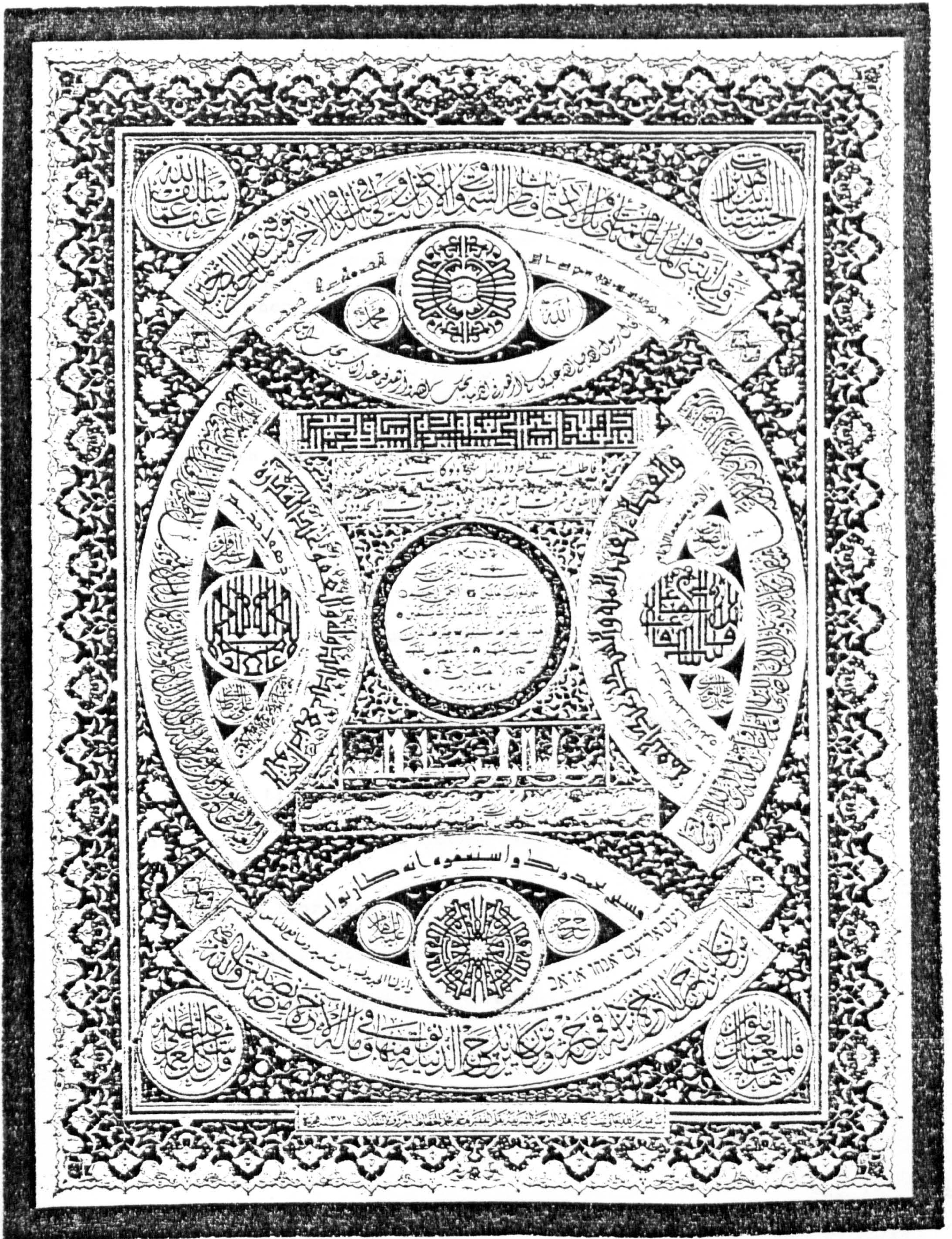
The Arab books were famous for their beautiful calligraphy and illumination (see figure 5.2). The aim of binding books was not confined to protection only, it was intended to be a piece of fine art (15, p.20).

5.2.2 Libraries

Love for books and learning along with flourished book industry were natural motives for the establishment and promotion of libraries of different types during the Abbasids' rule.

Among the glories of Baghdad during the days of the Abbasids were its exceptionally, fine libraries. Many of the Caliphs of that line were patrons of learning and delighted in collecting ancient and contemporary literature.... Scholars were employed to gather, copy and translate, and comment on all sorts of literature

Figure 5.2 : Arabic Book Illumination and Arabic
Calligraphy



from any and all sources Learning, in a sense, may be said to have become fashionable at court, and the viziers and other associates of the Caliph followed their examples and supported scholars and literary men, whom they drew to them It is only natural that libraries, small and large, were soon being collected. Many of them were private collection intended only for the use of the owners and their immediate friends, but the libraries of the caliphs and other officials soon took on a public or semi-public character. Books which were painstakingly copied and purchased at great expense were worthy of preservation, and their possessors bequeathed them to mosques, shrines, or schools where they could be probably cared for and made accessible to scholars for ages to come. Professors of colleges quite frequently gave their own works and private libraries to their respective institutions (18, p.279-80).

During the ninth century, there were sixty-three libraries in Baghdad alone; there were others in such Iraqi cities as Basra, Kufa and Mosul (19, p.75). The libraries of Baghdad were open to the public and scholars whatever their purposes might be and by the tenth century these libraries served as models throughout the Islamic world. The lending policies of these libraries were very liberal that one could be permitted to have 200 volumes in one's room at one time (21, p.21).

5.2.3 Types of Libraries

Libraries during the Abbasids period can be classified into the following types:

5.2.3.1 Mosques Libraries

These may be considered as the first type of libraries known at that time and the nucleus for the establishment of other libraries.

Mosques, besides being places for prayers and religious rites, became headquarters for libraries. People donated and bequeathed their books to mosques. The collections of these libraries

were rich in religious literature (16, p.413). As an example, one can cite the library of AL-Mansur Mosque in Baghdad (11, p.59).

5.2.3.2 The Caliph's and Official's Libraries

These were private libraries for caliphs, princes and governors. The fame, size and development of such libraries were mainly dependent on the intellectual level and interest in books and learning of the caliph, prince or governor. The palaces of the Abbasids caliphs were famous for their libraries which housed the most beautiful and valuable books. Such were the libraries of the caliphs AL-Mustansir and AL-Mu'tasim, for examples (11, p.59).

5.2.3.3 School Libraries

These were set up in schools which were founded in the late part of the Arab Islamic civilization. The collection of these libraries included books related to the subjects taught in the school at that time. The most famous school libraries were those of AL-Nizamiya School founded in 1065-67 and of AL-Mustansiya School founded in 1234 (16, pp.410-411).

5.2.3.4 Public Libraries

This type of library spread widely during the Abbasids' period. They were opened to all who wanted access to their collections. They were beautifully furnished and decorated. Usually this type of libraries was attached to schools or mosques, but they also had independent buildings. The most famous library of this type was Sabur Library (House of Knowledge) founded by Sabur Ibn Ardashir in 993 (15, p.200).

5.2.3.5 Private Libraries

Such libraries were usually established by dignitaries or men of wealth as semi-public institutions included in their collections were logic, philosophy, astronomy and other sciences. Scholars and learned people had no difficulty in getting access to these libraries. In Mosul, there was a library founded by one of its citizens, where students were even supplied with free paper (14, p.413).

5.2.3.6 Academic and Research Libraries

This type of library was especially assigned for research and higher studies. A remarkable library of this type was that of Bayt AL-Hikma (House of Wisdom) founded by the Caliph AL-Mamun in 830 in Baghdad (16, p.311) a description of which is provided below.

5.2.4 Examples for Libraries in Medieval Iraq

As examples for libraries in Medieval Iraq, the following is a description of three famous libraries and the institutions which housed them.

5.2.4.1 The Library of the Caliph AL-Mamun

Probably the first great library in Baghdad was that founded by AL-Mamun (813-833), the seventh Abbasids Caliph who founded an institution called Bayt AL-Hikma (House of Wisdom) which housed the library. AL-Mamun was tremendously interested in all fields of learning and was himself the possessor of considerable intellectual abilities, so that his desire to collect rare and valuable books was based on more than a mere acquisitive tendency. The observatory in Bayt AL-Hikma was a laboratory in which scientists studied, experimented,

and wrote. Astronomy was much mixed with astrology, in which the Caliph had great faith, yet much genuinely scientific work was carried out.

AL-Khwarizmi, the author of algebra and the compiler of an almanac which was long considered authoritative, was in the habit of retiring into AL-Mamun's library for study. Many other scientists of the time were at the court of the Caliph. There was a keen desire to know everything which had been written by scientists of other and older cultures. Translation into Arabic was the means of doing this, and the task was done quickly and thoroughly. Some of the translations were made directly from Greek, and others from Syriac; hence, men thoroughly versed in both languages were much in demand. Among the most capable translators of the ninth century were the group headed by Hunayn Ibn Ishaq, a physician. The scribes and the translators of Bayt AL-Hikma were often men of scholarly attainments, whose names were worthy to be recorded in AL-Fihrist, a catalogue of authors and their books. The Caliph's library included many rare books; one of these was a book which was supposed to be in the handwriting of Abd AL-Mutalib, the grandfather of the Prophet Mohammad. Untold riches must have been housed in this centre of learning until Baghdad was invaded by the Mongols in 1259. Responsibility for this centre was given to men well-known in the literary world of the time. Among these were Salm, Said and Sahl Ibn Harun, literary men whose names appeared in connection with the books of the House of Wisdom, and hence in all probability may be regarded as librarians. Salm was known for his scientific interests; his duties were those of a

collector and translator of scientific books. Sahl, in addition to being a literary writer, he was also a famous collector and translator of old Persian and Indian material. Said was one of the great rhetoricians of Islam and was known as the author of a collection of letters or tractates and a book on philosophy and its benefits. In general, it seems that these three librarians were in charge of collecting and translating books on all kinds of literature from any and all sources. However, it is uncertain whether all these three men served in Bayt AL-Hikma at the same time; but it is evident that there were at least two librarians at a time. There seems to be no detailed description of Bayt AL-Hikma and its library. One would like to know how it was housed and administered, how the books were preserved, whether they were catalogued and more details concerning the nature and size of the collection (18, pp.281-88). In its arrangement, the library might have followed the same system used in Islamic libraries of the time. Books were arranged by subject and stored in compartments that could be locked. Books were stored on their sides with labels carrying the title attached to the spine to facilitate identification. When catalogues existed, they usually were in book form (20, p.272). It seems that Bayt AL-Hikma was of two major parts : the first included reading rooms, rooms for discussions and sections for copying, translating, writing, binding and illuminating; the second part was the observatory (11, p.63).

5.2.4.2 The Library of Sabur Ibn Ardashir

Probably between 991 - 993, the vizier, Sabur Ibn Ardashir founded in Baghdad an academy which, like the earlier foundation of

AL-Mamun, was known as the "House of Wisdom". It was situated in AL-Karkh, the largest quarter of West Baghdad, in the locality called "Between the Walls". It is evident that the library was a significant feature of the academy, for the institution is sometimes referred to simply as "The Library" or "The Ancient Library". The library was sufficiently large and flourishing. It is said to have contained 10,400 volumes representing various departments of literature. It is not clear whether the above figure applies to the size of Sabur's original gift to the academy or to the extent of the whole collection of the library. At any rate, the library housed many precious books which were described to be all autographs of learned men. Abul ALa AL-Ma'ari, a famous Arab poet, was one of the circle of literary men and musicians who made the academy of Sabur one of the chief centres of the cultural life of Baghdad. It was in this academy and its library that poets read their odes, musicians sang and played, and learned men disputed; a sort of entertainment that delighted the vizier, Sabur as well as other patrons of arts and science. The position of librarian was filled by men of scholarly attainments, as in the library of AL-Mamun. Apparently there was enough endowment and work for two librarians: these were Abu Mansur, a grammarian and a geographer; and Abd AL-Salam, a philologist, in addition to the director of the entire academy, AL-Murtada, a theologian. There are two stories concerning the date of the destruction of this library. In the first it is said that books were burned in 1055 when Tughril Beg, the Seljuk, entered Baghdad. The second story attributes the destruction of the library to the fire which swept

through the site of the library in 1059 (18, pp.288-93). Although there are two different dates of the destruction of the library, there is a uniform reason, i.e. burning.

5.2.4.3 AL-Mustansiriya School Library

AL-Madrassa AL-Mustansiryia (AL-Mustansiriya School) founded in 1234 by the Caliph AL-Mustansir Billah, enjoyed many of the features of modern universities, and probably surpassed them in its dietary system which was applied to all individuals connected with the school, students and non-students alike. The school was administratively and financially independent, and had its own private budget from trusts and grants. The Caliph AL-Mustansir, a great lover of books and learning, endeavoured to make this school what it came to be in the world of culture. To ensure scholarly and scientific education suitable for a university of that golden age of learning, (the Caliph founded its famous library and presented it with 80,000 volumes from his private library. The library operated along lines drawn by AL-Mustansir. It had a three-man staff who received ample provisions in addition to their wages. It may be interesting to see this arrangement set down in the style of that period.) The library staff included a keeper, a supervisor, and a librarian. (The library grew rapidly to become one of the most important cultural centres in Baghdad. It housed about 400,000 volumes dealing with different fields of knowledge)(22, p.18). The books were arranged for the convenience of those who would consult and copy them. Free paper, pens, and lamps were provided for those students who wished to build up private collections by copying the treasures

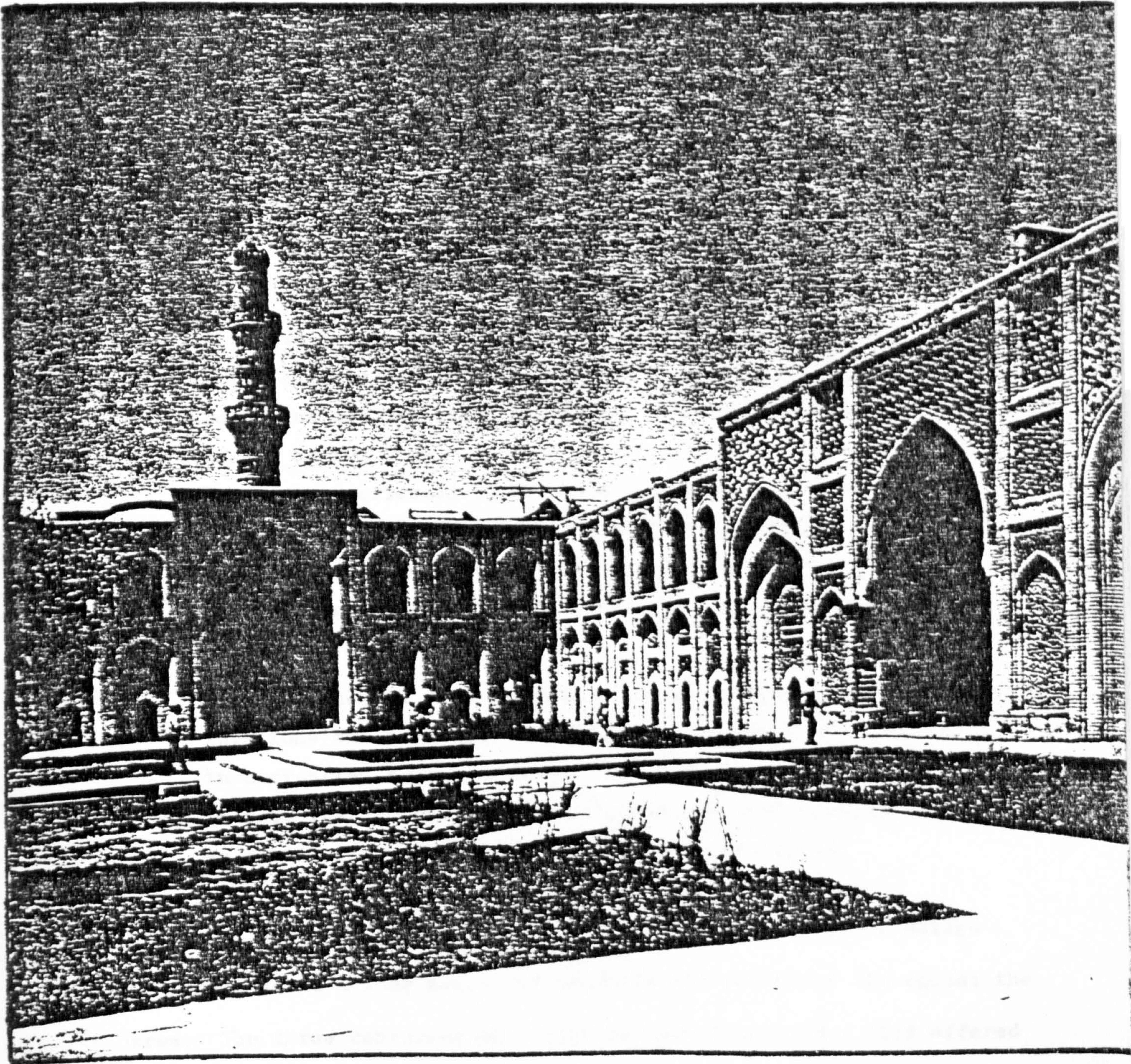
of this library. It was certain that no other school owned more books than did that of AL-Mustansiriya (18, p.299).

"In 1392, the fall of both the school and its library, as of all other centres of learning occurred with the first invasion of Taimurlane. Schools were closed, libraries ruined and books looted, burned or thrown into the river." Taimurlane in his second invasion later made sure that intellectual activities breathed their last at that period. Nothing was left of the AL-Mustansiriya library to indicate its greatness and role it had played in that age of enlightenment. The school resumed its activities for some time, but the library never recovered its previous position (22) p.19). Reconstruction of the school has been accomplished recently and now it can be visited as one of the historical places of interest in Baghdad (see figure 5.3). To draw a general picture of these libraries one may quote Mackensen (16) as saying

Probably the most interesting aspects of these libraries is the important place they held in cultural life of the time.) They were no musty storehouses where books lay seldom used and at the mercy of ignorant attendants. Instead, one sees them as centres in which assembled literary men and learned doctors. (Books were gathered by men who loved them, and were in constant use by scholars and eager students. These libraries were busy places.) The librarians, frequently men noted for their attainments in many fields, went out or sent others to gather rare and precious books which, if necessary, were copied and translated into Arabic. (The position of the librarian in Muslim lands during the medieval ages must have been an honourable one, for in these libraries it was often filled by great scholars, chosen apparently for their knowledge of books.) They were figures important in society of their times and often at court, members, rather than mere servants, of the cultural and learned groups which gathered in the libraries (p.281).

Figure 5.3

AL-MADRASA AL-MUSTANSIRIYA



By the end of the thirteenth century, the Mongols and the other barbarians, the crusaders, had broken the back of the Arab civilization that grew and flourished for more than six centuries. As a result libraries and their valuable collections were brought into ruin.

5.3 Libraries in Iraq From the Mongols Conquest (1258) until World War I

After the glorious and prosperous intellectual and material civilization which lasted for more than six centuries, libraries in Iraq, as well as in most of the Islamic world, began to decline as a result of two major factors, as outlined by AL-Samarraie (11):

1. Internal factor represented in the divisions in the Islamic World due to the appearance of various desperate religious and political movements; and the weakness of rulers of the time.
These were reflected in the people themselves and resulted in a stagnation in intellectual production and unwillingness to learn. Add to this the spread among people of bad habits, including great violence which led to the burying and or burning of books.
2. External factors were represented by the Mongols' and Crusaders' invasions which brought about huge destruction and resulted in corruption to the country. Libraries, as well as other learned institutions, were destroyed and their collections were either burned or thrown into the river (p.64).

(The destruction of Baghdad by the Mongol hordes of Hulagu in 1258 ushered a long period of darkness and obscurity throughout the area. The three centuries of Iraqi history from 1258 - 1539 offered

the most depressing and disheartening of spectacles. After that Iraq became a province of the Turkish Empire for about four centuries. Three of these were under the oppressive, stagnant regime of the unreformed Ottoman Empire, and nearly one century dating from 1831, under the half-modernized Turkey of reforms. The Ottoman rule was generally, semi-military in type, capricious, obscurantist, disorderly, and effective only in urban and suburban areas (23, p.207). Thus, the prosperous culture surrendered to successive foreign invasions which tried their best to abolish all aspects of that culture; hence libraries and intellectual activities entered into a dark age. As a result, the picture of the institutions of learning at the beginning of the nineteenth century, was gloomy to an extent that high schools and colleges existed only in Istanbul, the capital of the Ottoman Empire (24, p.214).

The whole scene of libraries in Iraq during the Ottoman rule can be represented in the existence of some mosque libraries which were mainly assigned as store-houses and rarely used (25, p.13). This obscure, stagnant and backward cultural and social situation lasted until the end of the nineteenth century.

5.4 Libraries in Modern Iraq

When the Allies put an end to the Ottoman Empire in the First World War, Iraq became a mandated territory under the British rule. Because of the unstable political situation in the country as a result of foreign rule and the appearance of national movements demanding independence, the educational, cultural, social and economic sectors were given a little attention and consequently they were very

slow in progress. However, from 1920 onwards primary schools began to expand and secondary schools were established in principal Iraqi cities. Institutions of higher education also started to appear and learned societies were founded. In 1921 when the Iraqi Kingdom was established, governmental offices and organisations were set up to run the day-to-day affairs of the country. With these libraries started to appear again in Iraq, although, as Awad (26) stated, Iraq has never been without libraries especially in mosques and houses (p.127). However, one can say that these libraries were of medieval type. Modern libraries only started after the establishment of the Iraqi Government in 1921, which worked to activate the library movement, and thus libraries started to appear and spread year after year. By 1953, there were twenty public libraries belonging to the Ministry of Education (p.127).

Thompson (27) in his article on libraries in the Middle East, written in 1954 had this to say about public libraries:

As a result of the interruption of the public library tradition in the Middle East, we have the incongruous picture of public libraries being administered in our day in the same style in which they operated in the eighteenth century (p.163).

Public libraries were administered by instructions issued by the Ministry of Education. These instructions were subject to frequent changes and amendments according to arising needs. It so remained until the issue in 1960 of the Public Library Act No.4 which is considered the first legislation in the history of library movement in Iraq (28, p.12).

School libraries were created as an integral part of the establishment of a school, in particular, secondary schools. The

establishment of such library was not based on any defined policy or regulations. It was only a tradition that a school has a collection of books for pupil's reading. Thus the establishment of school library was stumbling in its pace until the issue in 1974 of the School Library Act No.54 which stated the establishment of a library in every school in Iraq (29, p.1).

The early special libraries were those established, mainly, by learned societies. Most of these hold rich collections in their field of specialization and mark the first contact with Western scholars and scientists. Special libraries in Iraq started when the first library of this type was established by the Iraqi Museum in Baghdad in 1933 (26, p.128).

The national library in Iraq is of a very recent date. Although originally established in 1920 as a public library, it only became and was named as national library in 1961 (30, p.36).

The creation of academic libraries in Iraq started in the mid-1920's, almost at the same time as college study began. In 1958, the colleges were incorporated in one administration Baghdad University (31, p.36) and consequently the first university library, Baghdad University Central Library, was established in 1960 (32, p.5). — The case of library development in developing countries attracted the attention of international organisations, particularly Unesco which has been in the lead in this respect. In the Arab world, as well as in other developing regions, Unesco's role has been very important to the development of library and information services. It has both sponsored various activities directly and stimulated the importance

of establishing and developing such services.

The two most important Unesco seminars affecting the Arab world, particularly in the area of introducing a general national and regional conceptual framework for the development of library and information services, were the Regional Seminar on Library Development in Arabic-Speaking States, Beirut 1959 (Beirut Seminar) (33), and the Regional Seminar on Bibliography, Documentation and Exchange of Publications in Arabic-Speaking States, Cairo, 1962 (Cairo Seminar) (34).

The Beirut Seminar drew up the first guidelines for the development of library services in its opening paragraph of its report which still has its validity today:

The Seminar recognised that sound planning on a nation-wide scale was the essential condition of library development. The starting-point of such planning should be a carefully-conducted survey taking into account the economic, political, social and cultural factors of the country; its aim should be the establishment of a national system including provision of adequate library services at all level (33, p.117).

The Cairo Seminar stressed the importance of library legislation, training of librarians, documentalists and information officers, organisation of information, cooperation and preservation of records (34, pp.140-141). In addition other meetings on the development of library and information services in the Arab World have been organised under the auspice of Unesco and or with its sponsorship. The most important of these are Meeting of Experts on the National Planning of Documentation and Library Services in Arab Countries, Cairo, 1974 (31), and Meeting of Supervisors of Library and Documentation Schools in Arab Countries, Baghdad, 1976 (36).

Unesco has not confined its activities to the organisation of meetings; it also sent missions and experts to assist in the establishment and or development of library and information services, and to conduct library training courses. One can say that the present library education programme in Iraq has been the result of Unesco initiatives in this field, starting from 1953 when a short course for college librarians was organised at the Higher Teachers' Training College in Baghdad under the direction of C.M. Saunders, a Unesco library expert (37; p.248). The stimulation and aids in developing library and information services achieved by Unesco, and sometimes by other aid-giving agencies, in particular, the British Council and Ford Foundation, has had noteworthy practical results in the Arab World. Regionally speaking, one can refer to the foundation in 1970 of the Arab League Educational, Scientific and Cultural Organisation (ALESCO) (38) whose Department of Documentation and Information (DDI) aims to:

- a) develop infrastructures of documents and information centres in the Arab countries;
- b) provide bibliographical services, using modern technologies;
- c) promote the capabilities of librarians, documentalists and archivists through training courses and meetings;
- d) collect basic information on the Arab countries, particularly in the specialized subjects of ALESCO, and make this information known world-wide; and
- e) promote the maintenance and restoration of Arabic manuscripts (pp.55-56).

ALESCO convened a number of meetings for the people concerned with the library and information field.

Its Seminars of 1971-1972-1973 are considered the first activity in the stimulation and promotion of developing library and information services in the Arab countries (39, pp.90).

In Iraq, the practical results achieved as a response to Unesco's, ALESCO's, and other aid-giving agencies activities can be witnessed in the establishment and or promotion of information infrastructures, conducting library training courses by the Central Library of Baghdad University starting from 1960 (40, p.475), and ending with the establishment in 1970 of the Department of Librarianship in the Mustansiriya University to shoulder the task of library education in Iraq (41, p.1). In 1960 there was one university library with its respective eleven college libraries (total holdings 91,021 volumes) and forty public libraries, seventeen in Baghdad and the rest in the main provincial cities. The largest of these were those in Baghdad (29,626 vols.), in Basra (10,000 vols.) and in Mosul (25,000 vols.). Besides there were fourteen small public libraries belonging to clubs, institutions, associations, etc., practically all of them in the capital Baghdad (42, p.124). At present, for example, there are 16 university libraries (43), 156 public libraries (44, p.1), 1236 secondary school libraries, and 6751 primary school libraries (45, p.4).

5.5 Summary and Conclusion

The information about libraries in Iraq, particularly as concerning historical development, is scanty due to the lack of recorded data with the exception of what has been incidentally written in books of history and literature. However, an attempt, according to

available data, has been made in this chapter to set a general scene of the development of libraries in Iraq since ancient times till the present time. Library development has been looked at in this chapter through four periods - the ancient period (3000 B.C. - 637 A.D.) - the medieval period (637 - 1258) - the period between 1258 and the First World War - the modern period.

In brief one can see that Iraq inherited the history of some of the world's most ancient and culturally most significant civilizations. The Sumerian, Babylonian and Assyrian civilizations grew and flourished in Mesopotamia where the great libraries of antiquity existed. In the Middle Ages, the Arabs achieved a remarkable intellectual and material civilization whose influence spread to other parts of the world, particularly Europe. Since 1258 Iraq has undergone many different foreign occupations until it became independent in 1932. These occupations have deeply affected the cultural, educational, social, and economic situation of the country.

Institutions of learning, including libraries, were rudimentary and sterile in the sense of contributing to the culture of the society. This is why modern library and information services in Iraq are recent phenomenon. However, in recent years a high priority attention has been given to socio-economic and educational development. This has resulted in rapid expansion of educational institutions of all levels and consequently in the establishment and spread of libraries. The general conclusion is that the high esteem for books, learning and library tradition in the Iraqi society, as well as in the rest of the Arab people, has been maintained and the establishment of libraries in

various institutions has been met with full approval. Nevertheless, the existing library and information services in Iraq are still inefficient on account of factors which will be considered in Chapter Ten.

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CHAPTER SIX

LIBRARY AND INFORMATION SERVICES IN IRAQ: A CRITICAL ANALYSIS

6.1. Introduction

If we could first know where we are, and
whither we are tending, we could better
judge what to do, and how to do it.

Abraham Lincoln

This chapter focuses on the present state of library and information services in Iraq, including libraries, documentation and archives in the light of modern trends. Such a focus is needed to obtain a general background of the overall scene of present practices which constitutes the basis for the formulation of objective guidelines for the development of these services.

6.2 Libraries.

6.2.1 Introduction

The libraries will be discussed by type - national, academic, school, special and public - as separate groups because libraries within each of these groups are quite similar in their various organisational structures, operational aspects and performed services. A detailed account of each individual library within each of these groups is quite a repetition and may not serve any purpose. Besides, a detailed account of each of the 8407 schools, 92 special, 156 public and 57 academic libraries is beyond the scope of this study. This, however, will not apply to the national library because there is only one in Iraq.

6.2.2 The National Library

The national library, as known today, is a new phenomenon. It is even less known in the developing than in the developed countries with the exception of a few which have had long and close relations with the developed countries. Many of the present established national libraries did not start as such but evolved over a period of time (1, p.108).

In Iraq, the National Library was established in 1920 as a public library (2,p.29). It so remained until 1961 when the National Library Law was issued and stated the establishment of a national library in Iraq to collect and preserve the Iraqi and Arab heritage (3,p.51). Thus the oldest established library in the country was changed into a national library and its responsibility was given over to the Ministry of Culture and Information according to Law No.43, 1964. This library, since its establishment in 1920, has moved to many buildings until 1977 when it settled down in its new purpose-built building in Baghdad (2,pp.30-37). In 1970, the National Library, according to the Deposit Law 1970, became the legal depository for all Iraqi publications (4,p.54).

The functions and activities of a national library differ from one country to another. The basic functions of a national library, as recommended by Unesco Regional Seminar on the Development of National Libraries in Asia and the Pacific Area (5) are:

1. To provide leadership among a nation's libraries.
2. To serve as a permanent depository for all publications issued in the country.
3. To acquire other types of materials.
4. To provide bibliographic services.

5. To serve as a coordinating centre for cooperative activities.
6. To provide services to government (p.2).

The functions of the Iraqi National Library include:

1. To preserve the Iraqi and Arab heritage.
2. To issue the Iraqi National Bibliography.
3. To organise and participate in national and international book fairs.
4. To train librarians and hold library seminars.
5. To exchange publications with libraries inside and outside the country (6, pp.34-35).

At present the National Library is under the direction of the Ministry of Culture and Information. There are 110 people working in the Library, of whom only fifty are professional. Moreover no one of the fifty professional staff holds a degree in librarianship higher than an ordinary diploma (two-year course after secondary school). The actual need of the Library for professional staff is eighty-eight. This indicates that the National Library is suffering from a shortage of staff in terms of qualification and size. The functional work of the Library is carried out in nine departments - Acquisition, Periodicals, Cataloguing and Classification, Depository, Exchange and Gifts, Circulation, Bibliography, Microfilm and Reference.

In August 1981, the collections of the Library amounted to 130,031 volumes of books and 17,330 volumes of periodicals. The Library subscribes to 180 local and foreign current periodicals (7, p.1). The money spent on materials purchasing in 1980 was forty thousand Iraqi Dinars. The collections are arranged according to Dewey Decimal Classification with some modification for Islam and Arabic language.

To make use of the collections in the National Library, a seating capacity has been provided for 900 readers in three reading rooms. However, during the candidate's visit to the Library, there was room for only one hundred readers. This condition has occurred because the National Centre for Archives, and the Arab Regional Branch of the International Council on Archives (ARBICA) have occupied a complete floor in the National Library building.

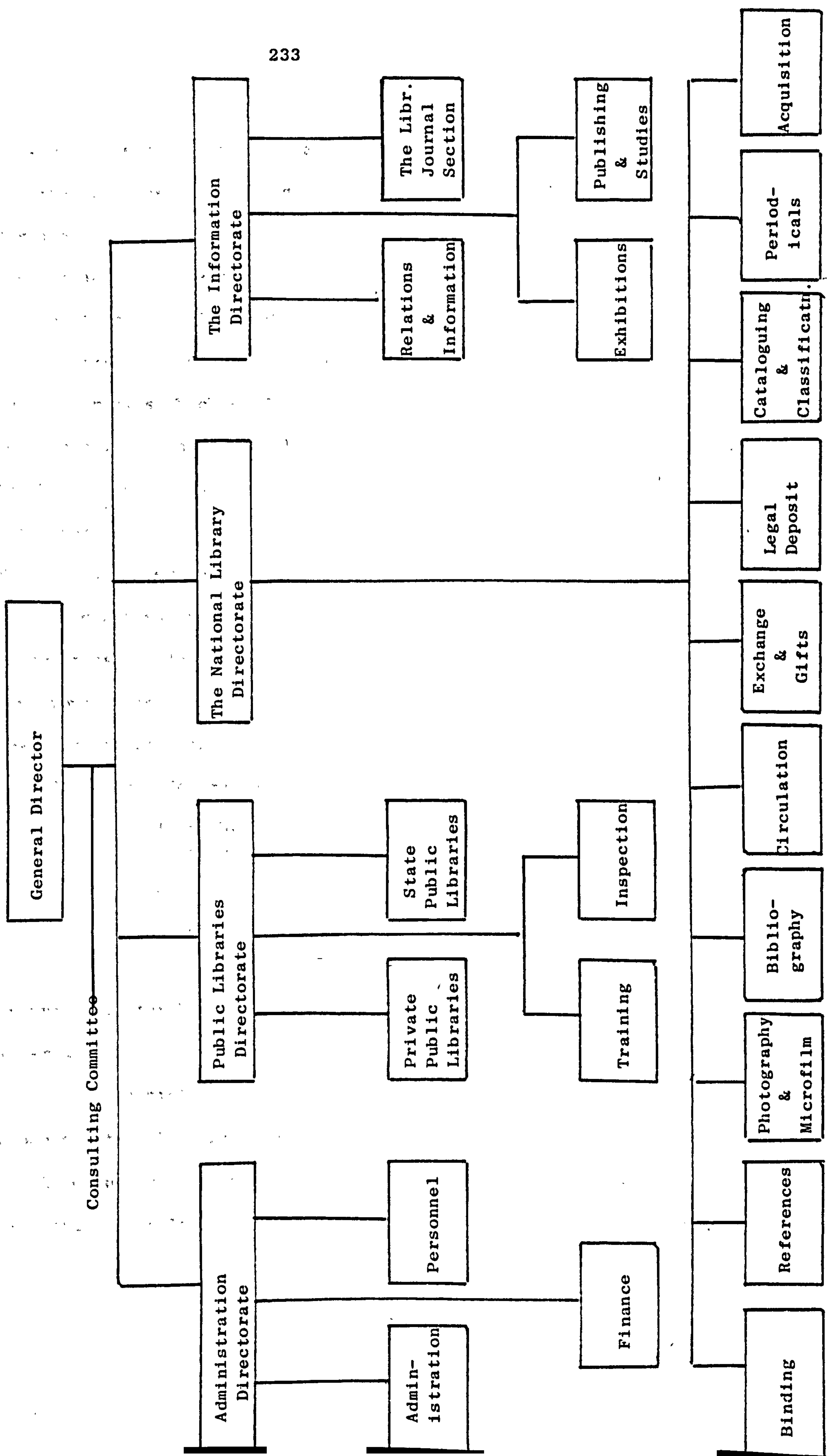
As for the Library's future development, it is attempting now to disengage itself from the subordination to the Ministry of Culture and Information, and to apply its new Law which has been set by a special committee and presented to the above Ministry for ratification. This Law will help the Library to enjoy some independence and an increase in financial allocations for material purchasing. Besides, if this Law is ratified, the Library will:

- a) technically supervise public libraries;
- b) produce and distribute card catalogue to public libraries;
- c) set up a unit for binding and maintenance;
- d) develop bibliographical activities;
- e) deposit audio-visual materials; and
- f) expand its departments (6, pp.33-34).

According to the new Law, the organisational structure of the National Library will be as shown in figure (6.1).

With respect to the functions performed at present by the National Library, it has been noticed that they are limited in a) stock collection and conservation; b) circulation and reference; c) publications exchange; d) issuing the Iraqi National Bibliography in addition

Figure 6.1 : The Future Organisational Structure of the National Library (6, p.32)



to some occasional subject bibliographies; organising and participating in book fairs; and publishing its quarterly journal, "Arabian Library Journal", which started in 1981 (8). Two important basic functions have not yet been practised by the National Library, i.e. a) to provide leadership among the nation's libraries; and b) to serve as a coordinating centre for cooperative activities. The Iraqi libraries which suffer from acute shortage of human and technical resources are in a great need for a leading central agency represented in the National Library, to provide leadership in technical and bibliographical services and to initiate and coordinate cooperative activities. This has not been met by the National Library because its role as a central organisation has not been legislatively stated and because the manpower available in the Library is incapable to carry out these functions. However, even the Library's functions defined in its Law are inefficiently and partially performed. In the National Library Law (3) Article Two reads:

That the National Library collects and preserves books, manuscripts, periodicals, illustrations, paintings, recordings, films, etc. which relate to the Iraqi heritage in particular and to the Arab heritage in general, and to human heritage and civilization; and facilitates the utilization of them (p.54).

In practice, the National Library collects and preserves only printed materials.

The bibliographies issued by the National Library generally appears late. For instance, the Bibliography of Iraqi Publications' for 1976 appeared in 1980 (9). This may occur owing to publishing difficulties in Iraq, however certain measures should be taken to avoid

the delay in producing current bibliographies, which may make such bibliographies of little use. Reader services are generally inadequate. Inter-Library lending is not practised and photo-copying facilities are poor. During the candidate's visit to the Library there was one photocopying machine and it was out of order. Traditional methods of library operations predominate.

The general impression one may get about the National Library is that it functions unsatisfactorily. However, if we consider its age as a national library and do not compare it with its counterparts in developed countries, we can see that it has achieved considerable developments. But there remains a lot to be done to enable the National Library to be a national in practice not only in name. This however, can only be achieved by the issue of a comprehensive and sound legislation that governs the functions and role of the National Library. To achieve this depends largely on the will and understanding of the authorities concerned of the role of the National Library, and on the commitment of leading people in the field of library and information services in Iraq.

6.2.3 Academic Libraries

By academic libraries we mean university, university colleges, and technical institutes libraries, in other words libraries in the institutions of higher education.

The purpose of a university education at its best is summed up by Sir James Mountford (10) in British Universities when he says of the nature of teaching and learning

It must necessarily provide the student with a body of positive knowledge which enhances his store of learning and in part equips him for his career in later life. It inculcates in the student an attitude of mind which regards the critical assessment of facts and values as more important than dogmas, and which holds that a grasp of underlying principles is more valuable than the accumulation of information or the acquisition of skills and techniques ... To the limits of his capacity he is trained to collect evidence for himself and form a balanced judgement about it. He fortifies his ability to think for himself (p.255).

The last part of this statement "To the limits of his capacity to think for himself", evidences the role of the library as a centre where a student can learn to collect evidence for himself, whether during his academic life or in his career in later life. The Regional Seminar on the Development of University Libraries in Latin America, 1962 (11) stressed that

- a) the level of a country's development depends largely on the level of its higher education system;
- b) the standard of higher education depends largely on the performance of universities; and
- c) universities will be as good as their libraries (pp.123-24).

The above statement implies that the library plays a significant role in promoting the educational function of the university of which it is an integral part.

In Iraq, the first academic libraries were established in the 1920s at the same time as college study began (12, p.36). The pioneering college libraries were those of the Higher Teachers Training College, and the College of Medicine, which were established in 1927 (13,p.31,34).

Then followed the establishment of other colleges and their libraries. It so remained until the existing colleges of the time were incorporated in 1958 under one administration called 'Baghdad University' (12,p.36). In 1960, the first university library, the Central Library of Baghdad University, was established (13,p.95) to be the starting point for the establishment of other university libraries in Iraq. As the main source of high level manpower in the country the Universities have been undergoing considerable expansion which has included the provision of new central libraries and separate college libraries. Decentralization of library facilities has been necessary because of the undefined campuses which in most universities stretch for several kilometres along the city where the university locates. Each of these libraries has its main staff and varied holdings. They differ largely in the time of their establishment and the size and value of their collections. In this respect the Central Library of Baghdad University (250,000 volumes) and the respective college libraries are the oldest and largest. In all, academic libraries in Iraq include six major central university libraries (786,695 volumes), thirty-one university college libraries (712,717 volumes), and twenty technical institute libraries (122,887 volumes) (13, 14, 15, 16, 17, 18) (see figures 6.2 & 6.3)

FIGURE 6.2 : UNIVERSITY LIBRARIES

Library	Founded	Students enrolled	Academic staff	Size of collection			Size of Staff		Seating Capacity	Opening Hours	
				Books (vls)	Periodicals (titles)	other	Professional	Non Professional		From a.m.	To p.m.
Baghdad	1960	33150	2051	250000	1773	5000 Gov. Publ. 1600 Cpd. MSS 700 UN Pb. 100 Films	30	50	300	7	10
Mustan-siriya	1964	10286	416	110172	1000	76 films 70 slides.	21	29	400	8	8
Basra	1964	10533	574	129523		284 maps 672 MSS	7	22	200	8	8
Mosul	1965	12965	910	150000	3100 (vols)	10,000 UN Pub. 3000 copied MSS 300 slides	11	99	1200	8	10
Salah-al-Din	1968	6512	437	100000	300	-	5	8	150	8	5
Univ.of Tech.	1975	8336	239	47000	800	-	13	2	1000	8	5

1. Professional = qualified personnel or those who have been well trained, including administrative personnel

2. Non-professional = Those who have no library qualification. training or experience.

FIGURE 6.3 : University Colleges and Technical Institutes libraries

University Colleges & Technical Institutes	Number of Libraries	Readership		Size of Collection
		Teaching staff	Students	Books & periodicals (Vols)
Baghdad	14	2051	33150	474,347
Basrah	7	574	10533	176,476
Mosul	10	910	12965	61,794
Technical Institute	20	1888	20648	122,887

The quality of these libraries from the very beginning was far better than that of any other type because of the attention and support they were given by University authorities. This care is obvious in the size of collections, technical efficiency of the organisation, the size and qualification level of staff, and the open budgets for materials purchasing.

Academic Libraries are better organised, have larger collections, and are staffed with better qualified and trained personnel (19, p.65).

However, this should in no way create the impression that academic library service is dynamic and fully adequate. It has been mentioned earlier in this section that universities will be as good as their libraries. This indicates the intimate relation between the educational programme of the university and the programme of its library.

Therefore, in order that the library may function efficiently and promote the educational function of the university, its programme should be determined to a large extent by educational programme of the university. Such a library programme, as outlined by Gelfand (20) in his "University Libraries for Developing Countries", should

provide, first, for the foundation of an effective service : a standard of library service objectives, a competent staff with authority as well as responsibility for developing library service, a plan of organization and adequate financial and administrative support; secondly, for the physical facilities, library resources and services which will be required; thirdly, for continuous maintenance and development, and for cooperation and co-ordination of library services within the university and with libraries and other information agencies outside. Finally, it should provide for periodic evaluation of the service to ensure that the library is fulfilling its mission effectively (p.24).

Considering the status of our academic libraries in the light of the above requirements, we see that they stand far behind. Most of them are understacked, poorly managed and contribute very little to the education of the student. They have no defined policy and or objectives and they function in isolation from the educational programmes of the university, college or institute where they locate. This is perhaps because of the nature of the educational system which is based on the memorization of prescribed textbooks and lecture notes. As a result administrators might have come to the notion that in such an educational system it is wastage of money and effort to achieve advanced library system in institutions of higher education since it will remain poorly used. On this matter Qazanchi (21) wrote:

College students do not make full use of the library facilities, partly because there is little library consciousness and partly because faculty members tend to rely upon certain texts in teaching their courses and do not encourage the students to study the required topics through selective independent readings. (p.91).

It may, therefore, be difficult to expect otherwise in a country where librarianship still has low status, where there are literally few professional librarians, and where the educational system depends on the traditional 'chalk and talk' method of teaching.

Turning to the libraries themselves we find that the majority of their staff is non-professional. The data in figure (6.2) shows that out of 267 people working in four central university libraries, only eighty-five are professional. In the Seminar on the Development of University Libraries in Iraq, 1979, (22) it was found out that these libraries lack 121 qualified librarians (p.23). The shortage of staff is not only because library education programmes in Iraq cannot meet the increasing demand for qualified manpower, but also because most of the library education graduates do not like to work in libraries because of the low status of the profession. And if they do work in libraries they may leave their job if a chance for a better one arises somewhere else. This situation has negatively affected the library services and confined them in circulation, reference, and inadequate photocopying facilities. Information services, current awareness, user education, inter-library loan, and open access are not practised.

Cooperation and coordination among academic libraries do not exist. Central University libraries as well as college libraries function

independently and in isolation from each other in all respects. There is, for example, an obvious race among these libraries in collection building because it is regarded as a prestige for a library if the size of its collection exceeds that of the others. Unfortunately, there is often useless duplication of materials and insufficient coverage of major fields of learning with an eventual wastage of money, time and effort. In Iraq, where library human and technical resources are lacking, cooperation and coordination in library services is mostly needed. In the Symposium on Academic Libraries and the Dimensions of Their Growth, held in Baghdad, 1981, (23) the following deficiencies were highlighted:

- a) Most of the library buildings have not been designed in accordance with the nature of library work.
- b) Most of the libraries suffer from shortage of space to accommodate their growing collections.
- c) Shortage of the materials that are highly demanded by students.
- d) Unsuitable furniture.
- e) Most of the libraries lack audio-visual materials.
- f) Most of the libraries follow closed-access system.
- g) Most of the libraries lack photocopying machines.
- h) Classification and cataloguing vary from one library to another.

To sum up, academic libraries in Iraq are still playing a minor educational role. This however, is not only the result of inefficient library programme but also of the nature of the methods of instruction which does not encourage the utilization of the library. Therefore, it is necessary to release the academic staff and students from being textbook bound. In this way, demands for better library

services will arise and eventually the library will attempt to develop itself to meet such demand and play its role as an integral part of the teaching/learning process.

6.2.4 School Libraries

School is the beginning of a child's academic career and it is the base on which his/her entire future depends. During these impressionable years whatever the child assimilates he/she disseminates it in his/her future life as a responsible citizen of the country. This necessitates the provision of an educational system that young generation is raised fully enlightened, mature and responsible. Here arises the question of the role of the library. A school library is considered to be the heart of the school. Its services are indispensable for supporting the educational programme of the school and as necessary elements of total library services of the country. Taylor (24) found out that much of the background for success and failure at tertiary institutions is dependent on the training in study skills and in use of the library gained in secondary school. He stated that:

The effectiveness of the educational ladder to tertiary level, therefore, can be very greatly increased by promoting the efficiency of school resource centres as libraries (p.118).

The objectives of a school library service, as defined by a conference on school libraries in Asia and the Pacific area, 1976 (25) are:

- a) to give continuing support to teaching and learning programmes and provide impetus to educational change;
 - b) to ensure immediate access to the widest possible range of resources and services;
 - c) to equip pupils with the basic skills of information retrieval;
- and

- d) to lead children to a lifetime use of libraries for recreation, information and continuing education (p.208).

To achieve such objectives, three requirements, as outlined by Tiffany (26), have to be met.

1. Personnel : Good people, adequate in number with essential personal and professional competencies are most important.
2. Materials: Rich and varied and many materials to meet individual needs, interests and abilities.
3. Facilities: Functional facilities which are readily accessible and which are flexible and expandable are needed to meet the increasing role of the library (p.37).

School libraries in Iraq are under the supervision of the Ministry of Education - Directorate of School Libraries. The Directorate is the highest authority and inspectorate of school libraries. According to the Law of the Ministry of Education (27), the Directorate of School Libraries is responsible for:

1. Promoting school library service.
2. Supervising, coordinating, following up, and reporting on school library activities.
3. Maintaining records of book collection, and number of readers.
4. Organising training courses for school librarians (pp.28-29).

During the candidate's visit to the Directorate of School Library, he found out that this Directorate, which is presumed to carry out the above responsibilities, was manned by three persons, only one of them has a basic library qualification. There is also a school library department in each of the General-Directorates in the eighteen Governments of Iraq. Such a department is responsible for the following up of the implementation by school libraries of the regulations issued by

the School Library Directorate in the Ministry of Education. Available data shows that the eighteen departments are directed by a total of twenty-seven personnel of whom only twelve (44.44%) have library qualification (28,p.3).

The Ministry of Education has issued and circulated a number of special regulations about the organisation and maintenance of school libraries. These regulations have emphasized the importance of the school library and directed attention of the schools to the fact that the library must provide adequate number of materials to support and enrich the school programme. They also emphasized the importance of class library as a means of supplying reading materials on the spot. These regulations also stated that:

- pupils must be introduced to their school library, so that they may be able to know its contents and borrow some books for home reading; and
- pupils must be taught how to use the library catalogue (29).

Unfortunately very few of these regulations have been put into practice mainly because the library staff are unqualified to do that and teachers and pupils are textbook bound. Latest figures show that there are now 8,407 school libraries with a total collection of 2,844,233 books, in addition to nineteen mobile libraries for school in rural areas (29, 30, 31, 32, 33, 34, 35) (see figure 6.4).

In a statement by the Minister of Education, it was announced that the year 1983 will be the 'School Library Year', in which libraries will prevail in all schools in Iraq (36,p.6). This may be a response to the School Library Act (37) where Article One reads:

That a library be established in every primary and secondary school, vocational and teachers training school and institute (p.1).

School libraries are classified according to the size of their collections into three groups - small libraries (200-1000 books); medium libraries (1000 - 2000 books); and large libraries (2000 books -) (35,p.4).

Considering the above review, one may get the impression that school libraries have been given a high attention and eventually they are flourishing and having a major role in the educational process. In theory, it is yes, but in practice it is unfortunately, to a large measure, the contrary. The acute inefficiency and problems of library services in Iraq are found in the school libraries. This is quite evident in many aspects such as physical facilities, collection, staff, services performed, organisation and administration, funding, and library use. As a rule school libraries are staffed with full-time or part-time librarians. The full-time librarians, with very few exceptions, are teachers given the responsibility of running the library as a relief because they can no longer perform the task of teaching for health reasons. In all school libraries in Iraq there are only eighteen qualified librarians (28,p.3). Part-time librarians are also teachers who run the library in return for being relieved from some of their teaching hours. The library opens during the school day, however, this depends on how much free time the part-time teacher-librarian has and presumably on the fact the librarian is primarily employed as a teacher with the assumption that his duty as a librarian is of secondary importance. Figure (6.4) shows that there are 7,590

Figure 6.4 : SCHOOL LIBRARIES IN IRAQ : 1980/81.

Level	Number of Schools	Teaching Staff	Number of Pupils	Libraries Available	Total Collections: Books & Periodicals	Staff		Reading Rooms
						full-time	part-time	
Kindergartens	387	3,235	76,507	287	58,260	9	269	53
Primary	11,280	93,917	2,612,332	6,751	1,613,050	107	6,235	N.d.
Secondary	1,891	28,453	950,142	1,236	1,007,203	133	881	N.D.
Vocational	Agriculture	1,054	9,010	23	21,752	3	20	18
	Industry	2,290	31,182	38	38.8.7	2	36	28
	Commerce	806	16,643	29	19,096	3	26	12
Teachers Training	Schools	814	21,892	31	49,499	13	18	27
	Institutes	188	4,279	12	36,546	7	5	11
	13,972	130,757	3,721,987	8,407	2,844,223	277	7,590	149

part-time and only 277 full-time librarians who are responsible for school libraries in the whole country. This status contradicts with what has come in the School Library Act. With respect to staff,

Article Seven reads:

The recruitment of school librarians should be from among the teaching staff who have the interest, experience and previous library training, or from specialized librarians (37,p.1).

In reality, most of those working in school libraries have had no library training, experience or even interest. This may be conducted by the fact that a shortage of qualified librarians exists throughout the country; and that the pupils' enrolment has expanded tremendously during the recent years with the result of giving higher priority to the provision of teachers rather than librarians.

Another distressing aspect of the school library is its accommodation. In all cases the library is a long room (between 3 x 4 and 6 x 10 square metres) (38,p.101), primarily designed as a classroom or a hall, with closed cupboards for books along the walls, and tables and chairs in the centre. Space for seating and shelving is restricted because of the small area of the library. Investigations have revealed that 55% of secondary schools in Baghdad lack the suitable place to accommodate their libraries (35,p.19). Article Three of the School Library Act states:

That a place be allocated to the library, with the capacity for storing and utilizing library materials; where such a place is not available it has to be built (37,p.1).

The achievement of such a place is affected by some domains. The major one is the expansion in pupils' enrolment which made it difficult

to spare accommodation for the library. If such a spare accommodation is available it will, in most cases, be used as a classroom. Add to this the fact that there is no spare area in the majority of schools to build a library. Realising this problem, the Ministry of Education has planned to build 290 libraries in the schools where areas are available (35,p.4).

With respect to the library holdings, books predominate. However, they are poor in quality and quantity and for the most part, do not have any relevance to the school educational programme or to the pupil's mental ability. Books are supplied only at long intervals without the voice of the school librarian, teaching staff, and the pupils. They are selected and bought centrally by the Ministry of Education or the General Directorates in the Governorates. On only very few occasions the school librarian practises book purchasing on teachers' requests. The annual allocations for book purchasing are thirty Iraqi Dinars (about ninety U.S. dollars) for each secondary school library, and 200 Dinars for each teacher training school and institute. The total amount spent on book purchasing in 1980 was 56,687 Iraqi Dinars (35,p.6). The books are usually arranged in closed cupboards according to Dewey Decimal Classification. They are poorly catalogued and classified because school librarians lack the knowledge in this matter. Card catalogues are not followed by the majority of school libraries. In a study conducted by Al-Timimi (39) on ninety libraries in intermediate schools (the first phase of secondary education) in Iraq, he found out that 68.69% of the libraries under study used wall lists of books as their own catalogues (p.22).

It is said that the value of a library is in its use. Our school libraries are poorly used. The typical user of the library is a pupil who goes there to make use of the library premise to cram for his examination. This is a result of three main factors: a) lack of reading habit and library consciousness among the teachers and pupils; b) the educational system which is based on learning by rote, and does not encourage any independent study; and c) the poor library service which does not attract the teachers and pupils to it.

In conclusion, the library at school is often inadequately housed, poorly staffed, stacked and used. In such a situation it is quite difficult for the school library to play any effective role in the teaching/learning process or in the promotion of reading habit among the pupils. However, a question arises here. With respect to the teaching methods, can the school library play an effective role at school on one hand, and can it develop to do so? The answer is 'no' unless we move away from learning by rote to learning by inquiry. Learning by inquiry, of course, needs resources for inquiry, and the resource centre is the library that will be able to support, complement, and expand the work of the classroom.

6.3.5 Special Libraries

Special libraries have been defined as "libraries which are maintained by a body, a society, or an institution, public or private, governmental or non-governmental, and which specialize in one field of study and are primarily designed to serve members of the body or institution (40,p.177). Halm (41) points out that the main difference between a special library and other types of libraries lies in

its user-oriented access (p.7). Withers (42) defines the functions of a special library in the following:

The library should provide materials for reference or lending, information and other services to further the objects of the organisation served, bibliographical services such as literature searches, translations, abstracts and indexes and other means, for the efficient dissemination of information...(p.418).

The special library is a product of the last part of the nineteenth century when industrialization took place, the institutionalization of technology and research and development began, and the formation of specialized learned societies started. The research libraries of the early industrial and business firms at the time of the Industrial Revolution are the predecessors of the special libraries of today. Nearly all countries show a parallel development : special libraries appeared when industrialization took place or when a country became independent; in the industrialized countries the great boom was after the Second World War (41, p.18). In Iraq the emergence of special libraries started in 1933 when the library of the Iraqi Museum was established in Baghdad (43, p.128).

Special libraries in Iraq are mainly found in Ministry headquarters, large governmental departments, industrial and commercial enterprises, learned societies, research and development agencies, museums and professional associations. There are now ninety-two special libraries in Iraq (44, p.726). The outstanding examples of these are the Library of Iraqi museum, founded in 1933 (100,000 volumes and 34,000 manuscripts); the Iraqi Academy Library founded in 1947 (75,000 volumes); the Library of the Ministry of Planning, founded in 1959

(7,000 volumes); and Al-Awqaf Central Library, founded in 1978 (27,000 volumes, 8,000 original manuscripts, 1500 copied manuscripts). The larger majority of special libraries in Iraq are found in the capital, Baghdad, where the ministries, governmental organisations, learned and professional societies are located. The existence of these libraries has been for a number of years, however, the standard of their services remains much to be looked forward to. They, with a very few exceptions, are not carrying out their role as special libraries in providing sufficient services to the organisations they serve and by the extent to which they contribute to the economic and industrial development of the country. On the most part, the services provided by these libraries do not differ from that of any other type of libraries. The Librarian of the Ministry of Planning Library told the candidate in his visit to the library that her library is special only its holdings; in its services it is confined to circulation and reference services. Subject coverage represented in the collection of these libraries is insufficient. This is because the budget of the library is within that of the parent organisation, with the result of facing difficulties sometimes in material purchasing. To this we can also add the lack of selection skills on part of the library staff, and lack of selection tools in the country. The size of collection varies greatly from one library to another and a large part of the collection is found to be obsolete because weeding out of no longer needed stocks is not practised. The collection is organised according to DDC and arranged on open shelves.

Special libraries suffer from an acute shortage of qualified staff. The majority is manned by one or two untrained librarians.

Among the most existing problems in the recruitment is not only of qualified documentalists but also of professional persons with the basic qualification to work in such libraries. The shortage of staff has reduced the potentiality and effectiveness of the library collection and resulted in the provision of traditional library services (circulation and reference). The staff working in these libraries do not constitute the usual manpower capable of promoting their libraries. In such condition, we find that each library functions in its own way in isolation from each other and other types of libraries in such matters as building their collections, cataloguing and classification, lending and reference services. This has led to the fragmentation of efforts for achieving better services, a large number of duplicates, and unawareness of who holds what. Shortage of space is another difficulty facing special libraries. Most of them are located in one or two rooms in the headquarters of the ministries and organisations. Additional space for the library expansion is difficult because it is already not available. If such space is available priority will be given to other departments to engage it rather than to the library as it ranks low among them. Therefore, insufficiency in space for the book stock always exists.

The general conclusion is that special libraries in Iraq do not function as special libraries; they are special only in their collections. They are inadequately staffed and organised; they suffer from shortage of space; and they rank low among other departments of the parent organisation. However, there are some good special libraries such as those we mentioned earlier in this section, which are much better off in many aspects we have discussed above.

6.2.6 Public Libraries

Unesco Public Library Manifesto proclaims the public library the principal means whereby the record of man's thoughts and ideas and expression of his creative imagination are made freely available to all (45,p.129). Professor Havard-Williams (46) describes a public library as a living force for education, culture and information - readily accessible to all members of the community, offering to adults and children the communication of information and ideas, whatever the form in which they may be expressed (p.59). The British Library Association Public Library Group set down the following as the objectives of the public library:

1. Education: To foster and provide means for self-development of the individual/group at whatever stage of education, closing the gap between the individual and recorded knowledge.
2. Information: To bring the individual/group accurate information quickly and in depth particularly on topics of current concern.
3. Culture: To be one of the principal centres of cultural life and promote a keener participation, enjoyment and appreciation of the arts.
4. Leisure: To play a part in encouraging the positive use of leisure and providing material for exchange and relaxation (47,p.441).

To achieve these objectives, the public library should meet the following requirements:

1. Its collection should include printed and audio-visual materials on all subjects and in all languages spoken by the community it serves, to satisfy all tastes at differing educational and cultural standards.

2. Its building should be centrally located, accessible to the physically handicapped, and open at times convenient to the user. The building and its furnishing should be attractive, informal and welcoming, and direct access by the readers to the shelves is essential.
3. The public library is a natural cultural centre for the community, bringing together as it does people of similar interests. Space and equipment are therefore necessary for exhibitions, discussions, lectures, musical performances and films, both for adults and children.
4. Trained and competent staff in adequate numbers to select and organise resources and assist users. The staff should be trained to work with children and handicapped, audio-visual materials and the organisation of cultural activities (45,p.130).

The public library in the widest sense of the word is an old agency in the Arab-Islamic history. It mainly grew and prospered as part of the mosque and it included in its collection not only religious books but also books on language, law, literature and history. In addition to mosque libraries there were public libraries sponsored by the state during the heyday of the Arab civilization. In the Middle Ages, it is said that there were seventy such libraries in Granada alone. In the modern sense of the word the public library is mainly a creation of the nineteenth century. In the Arab World of today it is a twentieth century creation (40, p.176). In Iraq, the first public library was established in 1920 in Baghdad by some learned men who donated money and books to the library. The library was called "Al-Salam

Library". It seems that the designation, 'public library', in the modern sense was only used in Iraq in 1929 when Al-Salam Library was given to the Ministry of Education and was so called (48,p.179). The public library movement was given a sort of attention by the Iraqi Government after its establishment in 1921 and as a result public libraries were founded in major cities of the country. In 1954 there were twenty public libraries belonging to the Ministry of Education (43,p.127), in 1960 this number increased to forty (49,p.124). From 1960 onwards the establishment of public libraries expanded to a large extent. For instance, in Maysan Governorate ten public libraries were founded during 1961-1975 (50,p.1). At present there is a total of 156 public libraries with a total collection of 826,800 volumes. These libraries are concentrated in the large urban areas and the largest of them are found in the principal cities - Mosul Public Library (44,000 vols.), Al-Kadhmiya Public Library, Baghdad (18,589 vols.), Al-Ramadi Public Library (11,699 vols.), Maysan Public Library (21,356 vols.), Al-Adhamiya Public Library, Baghdad (15,774 vols.) (51). The establishment and maintenance of public libraries is the responsibility of the local government authorities. The top authority is the Ministry of Local Government - Directorate of Libraries and Institutes. The technical supervision on public libraries is the function of the Ministry of Culture and Information Directorate-General of Cultural Affairs. The Directorate of Libraries and Institutes in the Ministry of Local Government is very poor with regards to human resources qualified in library matters. During his visit to this Directorate, the candidate

was told that it is directed by three civil servants and none of them has anything to do with library affairs except receiving and filing monthly and annual reports of the libraries.

Public library service in Iraq is handicapped by the shortage of qualified staff, insufficient funding, inadequacy of premises and other physical facilities, and poor collections. Public libraries in Iraq are mostly staffed with civil servants who have nothing to do with library work. They are recruited without having any idea about what they are going to do because there is no job description defining duties and responsibilities. Probably the only thing they know about library work is arranging books on shelves. This is unfortunately a public image about library work, which has prevented promising candidates to work in the library. This has resulted in an evident reduction in the potentiality and effectiveness of library collections, and in the provision of book lending only. Even this lending service is inefficient because of the poor quality and organisation of collections, closed access, internal lending, and surety requirements imposed on external lending. Zehery (52) expressed this from a Kuwaiti situation which also applies to Iraq:

The present emphasis of public library service in Kuwait is mainly on reading inside the library because of the administrative restrictions and an outmoded storehouse regulation which curtails book circulation outside the library (p.9).

The stocks of a typical public library are mainly books which, as Sharify (53) pointed out, fall into the category of "books of motion" - poetry, prose, etc., rather than into the category of "books of information", and that therefore no healthy balance exists between the

two (p.230) . Books are selected and bought for the libraries centrally by a committee in each governorate in Iraq. The librarians practise book selection and purchasing on a very few occasions. This has led to the building of collections which slightly enter into the life of the community and influence the social environment. Here arises the need to hand over the responsibility of book selection and purchasing to the librarians who should presumably know what the community their libraries serve needs.

The establishment of a new public library is seldom done according to a plan. Before the establishment nothing is done to examine community matters, such as the present population and its rate of increase; and the social, cultural, and educational standards and institutions within the community. On this question Ricking and Booth (54) wrote:

To understand the process and role of librarianship, we must begin to devote greater effort to examining and re-examining societal needs as the fountain head for services and materials of the library. Needs must be studied first, and only then - in response to needs - can and only should library services and resources be provided (p.9).

The lack of such practice in Iraq has resulted in an unbalanced geographical distribution of public libraries throughout the country as shown in figure (6.5).

Moreover, public library services are uncoordinated - each library does what it can in accordance with the resources available and without any information about what the other libraries are doing.

Public libraries are inefficiently used except by the students who find them as quiet and peaceful places for their textbook reading.

**Figure 6.5 : Georgraphical Distribution of Public Libraries
by Governorates (51)**

Governorate	No. of Libraries
Nineveh	16
Salah Al-Deen	7
Ta'meem	2
Diala	10
Baghdad	22
Anbar	11
Babylon	8
Kerbela	4
Najaf	7
Qadisiya	6
Muthana	3
Thi-Qar	13
Wasit	6
Maysan	14
Basra	9
D'hok	2
Arbil	11
Sulaimaniya	5
Total	156

The poor use of the public library can mainly be attributed to the lack of an established reading habit in the society, and the vague image held by the society towards the mission of the public library. This image has arisen because the library does not attract large clientele - it functions in isolation from the major interests of the

community and therefore suffers from a lack of communication with the general public. This is evident because the library has never attempted to acquaint its potential users with itself.

Gilmore (55) conducts for such a state by saying:

This is understandable as a sudden increase in the demand for service would be an embarrassment; as most public libraries are not geared to give service to the entire community. Most relate to their community as a lender of books to a percentage of the community (p.179).

In general the scene of public libraries in Iraq is not encouraging.

The inadequacy of the public library has prevented it from playing its role as a living force for education, culture and information.

While, as stated by Anderson (47):

In many countries where the very skill in, reading is something new and precious, the role of the public library appears even more important, more essential than in developed countries (p.435).

6.3 Documentation

6.3.1 Introduction

The process of documentation began in the end of the nineteenth century when Otlet and Fontain began to work on a great world bibliography of all recorded knowledge. They started to build this bibliography from conventional library catalogue and they chose the Dewey Decimal Classification as the basis for their classification scheme. They were attempting for a more penetrating subject analysis

of bibliographic materials than had been used in conventional librarianship. To differentiate their activity from that of librarians, they called it "documentation" (56, p. 51). The term "documentation" was originally derived from the word "document" meaning a material object containing fixed information for dissemination in space and time for use in social practice (57, p. 19). Exploring the literature on documentation one can find a variety of definitions of the term "documentation". Loosjes (58) stresses this point by stating that:

In the literature of documentation there is a multitude of theoretical definitions of the term (p. 3).

Verhoef (59) holds the same point of view:

I shall not try to find a solution here to the problem of defining documentation, for to do so would probably merely add a new definition to those already in existence and in all likelihood it could be just as debatable as all the others... (p. 193).

The issue of defining documentation can be clearly seen in Harrod (60) who lists thirteen definitions of the term (p. 285), Shera (56, 61), and Shera and Cleveland (62). In this section we follow the definition adopted by a working group of FID Committee for Developing Countries, which sees documentation as 'making accessible contents relating to facts and figures, and arranging these facts and figures for the purpose of retrieval and presentation'. Thus the activities involved in handling documents have been defined in gathering, checking, and sorting out documents according to their suitability for documentation; making the contents of documents accessible, and processing the documents, classifying and indexing; preparing the documents for storage

and storing them; retrieving; and presenting (57,p.20). To perform these activities the establishment of an agency to do so was called for, namely, a documentation/information centre. Istasi (63) sees the establishment of a documentation centre as an outcome of the increasing influence of science and technology on the social and economic life of nations, which has led to a greater need to maintain the scientific and technical collection and information services at a level adequate to the needs of researchers (p.97). She outlines the functions of a national documentation centre in the following:

1. Indexing and abstracting national scientific and technical literature to improve communication among scientists within and outside the country.
2. Securing, processing and making accessible technical reports and technical government publications issued by national and international agencies.
3. Providing translation services on request to make accessible scientific and technical material in other languages.
4. Providing referral services that assist in fully exploiting library and information resources quickly and efficiently. Such services furnish the user with the location of all relevant information sources in the country, and a list of all resources of expert advice. In addition to compiling lists and directories of such resources, a national documentation centre should be responsible for compiling a national up-to-date register of current research projects in government, universities and elsewhere.
5. Acquainting scientists and technologists with new scientific findings. Such current awareness services provide selected users with information on the latest literature published in their fields of interest. This service may take the form of bibliographies, SDI services (selective dissemination of information) and specialized bibliographies prepared at the request of users.

6. In building its information resources, which should supplement but not supplant those of other units, the national documentation centre should coordinate the scientific and technical resources of scientific and technical libraries and information centres of the nation. It should also be responsible for promoting knowledge about these resources through publications (pp.98-99).

6.3.2 The Iraqi Scientific Documentation Centre (SDC)

The SDC was established in 1972 within the Foundation For Scientific Research (now Council For Scientific Research - CSR). It was administered without any legislative framework. Consequently, it underwent frequent changes and amendments in its structure, administration and functions until 1981 (64,p.6).

In 1981, the SDC Act was issued and defined its structure, administration and functions. The functions of the SDC are:

1. To collect, analyse and store scientific information of local, Arab and international sources, and make this information easily retrieved for the benefit of scientists and researchers.
2. To offer bibliographical and current awareness services on scientific information available in the SDC or elsewhere inside and outside the country.
3. To organise the publication and distribution of scientific production of the CSR.
4. To publisize the findings of researches and studies conducted in the CSR, among the government organisations having subject specialization similar and or related to that dealt with by the SDC.
5. To encourage the national movement of scientific research by ensuring the availability of and access to scientific information.
6. To offer technical consultation service to government organisations.
7. To establish cooperation and relation with similar centres abroad.
8. To organise and participate in national and international meetings.

9. To publish technical reports, journals and bulletins.
10. To organise training courses for the SDC staff.

In order to carry out its functions and develop its experience, the SDC is authorized to equip itself with qualified staff and the required physical facilities (65,p.397).

The highest authority of the SDC is its Council of Administration, composed of ~~nine~~ members:

1. Director General of the SDC (Chairperson)
2. A university librarian.
3. Head of the Department of Librarianship, Mustansiriya University.
4. A representative of the Iraqi Academy.
5. Two library and documentation experts.
6. Two heads of departments in the research centre of the CSR.
7. A director of a department in the SDC. (65, p.398).

The overall structure of the SDC is composed of five functional departments (64, pp.6-16) as illustrated in figure (6.6).

The current publications of the SDC include:

1. Analytical Index for Iraqi Periodicals 1978 - (quarterly)
2. Current Research in Iraq 1979 - (quarterly)
3. Completed Research in the CSR 1979 - (biannual)
4. The SDC Bulletins 1978 - (monthly)
5. Annotated Bibliography of University Thesisses 1978 - (annual).

Figure 6.6 THE FUNCTIONAL DEPARTMENTS OF THE SDC

Department	Functions
Technical service	document provision, cataloguing and classification, exchange of publications
Information	bibliographical services, reference services, linkage to international databases (the SDC was linked to AGRIS and Lockheed/Dialogue but this has been stopped because of the difficulty in obtaining direct telephone lines.
Computer	automation of acquisition, circulation and information exchange with data bases abroad (not yet operational due to lack of staff)
Support Service	printing, photocopying, micro-filming, telex services
The Library	building one scientific and technical library by merging the existing libraries of the research centres in the CSR

Looking at the structure and defined functions of the SDC, one may get the impression that this centre contributes largely to the research movement in Iraq. In practice, unfortunately, it is handicapped to do so by a number of obstacles. The acute one is the

the lack of both professional and support staff. The number of staff working in the SDC is sixty, while the actual need is 133, i.e. a shortage of seventy-three (%121.7) (64,pp.48-51). This situation is shown clearly in figure (6.7).

Figure 6.7 SIZE OF STAFF IN THE SDC (64)

Department	overall size of staff		Professional	
	Available	shortage	Available	shortage
Technical Services	9	15	6	12
Information	11	17	9	11
Computer	5	19	-	-
Support Services	14	16	1	-
The Library	7	4	7	4
Administration	14	2	-	-
Total	60	73	23	27

The case of the SDC staff has made it perform only few of its defined functions; even those performed were in a number of cases inadequate. For instance, the bibliographical publications issued by the SDC usually appear late, some others have completely stopped. The inadequacy of accommodation and equipment is another aspect of the SDC. It is located in CSR building which is too far from the respective

research centres. The printing press is incomplete and causes delay in the publishing of materials, e.g. bibliographical publications. The lack of direct telephone lines has stopped the SDC from linking to international databases, and thus prevented scientists and researchers from access to a great amount of information which may be of great value for their work. During the candidate's visit to the SDC, he was told that scientists and researchers have no confidence in the services offered by the SDC. This is an obvious evidence that the SDC services are inadequate and do not satisfy the needs of scientists and researchers. The state of the SDC raises the needs for acquiring qualified staff to fill the existing vacancies; development and deployment of the existing staff; inviting foreign experts to work in the SDC; acquiring the equipment necessary for functional work; and establishing relations and cooperation with documentation centres outside the country. In meeting these needs the SDC may be led to the path of offering efficient services and eventually of contributing to the effective dissemination of information essential to the research movement in the country.

6.4 Archives

6.4.1 Introduction

The word "Archives" is derived from the Greek word "Arche" meaning government. The word "Archeion" means a magisterial residence or office. From this, in Latin the word "Archivum" was derived; which finally gave rise to the word "Archives"(66, p.4). Archives can be defined as all documents which are created or received by an administrative

body or individual by virtue of its (or his) activities, and which are subsequently preserved for future reference by the body or individual concerned or by their successors. They can, perhaps, most simply be thought of as "written memory" (67, p.2). A national archives is, therefore, "an institution that serves as a repository of records of the national government and of all its branches and agencies" (68, p.20); and or of individuals by virtue of their activities, for reference and research purposes. The Regional Seminar For Those Responsible For Archival Training Programmes in Arab States, 1978 (69) considered that:

....archives form an integral part of the cultural heritage of all nations and as such are essential to the understanding of national history and to the establishment of a national identity (p.1).

Accordingly, the Seminar declared that:

....national archives and records services are an effective instrument in public administration and in social and economic planning, thus contributing directly to national development (p.1).

6.4.2 Record Keeping in Iraq (70)

Since the state agencies are the main source of the provision of documents to national archives, they have indispensable impact on the development and activities of the national archives. A review of record keeping in Iraq is necessary to get a general background of such practice so as to understand the situation of the Iraqi National Centre of Archives. Record keeping in Iraq goes back to ancient times when the Sumerians, Babylonian and Assyrians began keeping their records of clay tablets in their royal palaces. The Code of Hammurabi is an evidence of the attention given to the recording and preserving laws

and events for the purpose of future reference. When Iraq became a part of the Arab-Islamic Empire, and particularly when it became the centre of that empire during the Abbasids' reign, administrative and educational institutions grew and developed. The Caliphs started writing to their provincial governors and vice versa. Consequently the written records varied in their contents, sources and forms. These records were organised and preserved by subject according to primitive methods. When Iraq became an Ottoman province, offices, whose primary function is to serve the Ottoman authorities in Istanbul, were established in Baghdad, such as Al-Dafterkhana (House of records). In such offices, the records were rolled and tied and then kept in cupboards or on shelves. In the 1920's methods more advanced than the earlier ones were introduced in record keeping, but this practice remained backward in comparison with the development of modern advanced methods and techniques in this respect in the developed nations. The British, during their rule in Iraq, introduced some of these modern methods and techniques in such offices as that of water, electricity and transport. However, little attention was paid to the role of records in serving the objectives of the state. At present, record keeping in Iraq is still not well-organised, uncoordinated and applying in most cases obsolete methods and techniques. In a study conducted on fifteen state organisations and companies representing different sectors, i.e. industrial, commercial and agricultural, the following problems were identified:

1. Most methods used in the Iraqi administration are ad hoc and only meet standing needs of the organisation.
2. Undefined duties and responsibilities of record departments.

3. Lack of principles and rules which defines the records to be kept and those to be destroyed.
4. Cataloguing and classification of records are inefficient with the result of poor record organisation and difficulty in record retrieval.
5. Lack of awareness of the role of records in serving the organisation.
6. Inadequacy of staff responsible for record departments.
In the organisations under study it was found out that 33% of the staff hold primary school certificate; 32% with intermediate school certificate; 25% with secondary school certificate; 6% with university first degree; and 4% with no qualification at all.
7. Lack of record and file catalogues.
8. Lack of cooperation and coordination between record departments and the other departments of the organisation.
9. Compilation of old files because annual inventory and weeding out of no longer needed files are not practised. (73% of the organisations investigated did not do annual inventory; and 80% did not practise weeding out).
10. Inadequacy of physical facilities in the record departments (pp.5-35).

6.4.3 The Iraqi National Centre of Archives (NCA)

The NCA was established in 1963 and became operational in 1964. It was linked to Baghdad University for a five-year period because of lack of qualified manpower to man the centre. In 1969, the NCA was given over to the Ministry of Culture and Information and remained so until the present day. In 1972, Iraq became a member in the International Council on Archives (ICA), and its Arab Regional Branch (ARBICA) took Baghdad as its office (71, pp.33-34). The NCA is the repository of the official records of ministries, courts and state organisations, including those of predecessor (e.g. the Ottoman and the British) administrations which have survived and/or have been

selected for permanent preservation. It may also acquire for the benefit of the nation collections of privately owned papers and copies (usually microfilms) of source materials relevant to the history of Iraq. The NCA is responsible for subsequent preservation and use by the government itself and by the scholarly and the general public (67, p.3): The NCA is structured of five functional directorates (71, pp.34-35), as shown in figure (6.8).

Figure 6.8 THE NCA DIRECTORATES AND THEIR FUNCTIONS

Directorate	Functions
Directorate of Archives	receiving, sorting, classifying and preserving documents.
Directorate of Technical Affairs	binding, maintenance of documents; photography and photocopying
Directorate of Research and Statistics	services to researchers, preparing monthly, quarterly and annual reports on the activities of the NCA.
Directorate of Documentational Library	collecting, organising and circulating books and references on Iraqi and Arab modern history and on archives studies
Directorate of Public Relations and Translation	organising relations with archival institutions outside the country, translating documents.

The NCA holds documents belonging to the Ottoman and British rule in Iraq, documents of the monarchy period, documents of the ministries and government offices, and miscellaneous maps and records (71,p.35). The Library of the NCA contains books and references on Iraqi and Arab modern history, and some materials on archival studies. Its total collection of books is 6366 volumes in Arabic and Turkish. It subscribes to ten current periodicals. The service of the library is confined to internal lending and references. There are two persons working in the library. The librarian holds a university degree in history but has no library qualification, his assistant holds a diploma in librarianship (two-year course after secondary school). The library is poorly used. This is evident in the number of users who consulted the library and whose number was only sixty during 1980 (72,p.6). The size of staff working in the NCA is seventy persons of whom thirty-five hold library qualification no more than a two-year course diploma after secondary school. The opportunity for staff development in the profession is very difficult because of the shortage in the staff available, which hinders the sending of any member of staff for further qualification inside the country or abroad. This issue of staff has reduced the functions of the NCA to that of a storehouse of a collection of documents. The general impression is that the comprehensiveness of the collection, their organisation, and therefore the availability of documents to users is on the whole limited. Besides, there are other factors which handicap the NCA - a) lack of cooperation of state offices with the NCA; b) lack of awareness of the role of archives; c) inefficiency

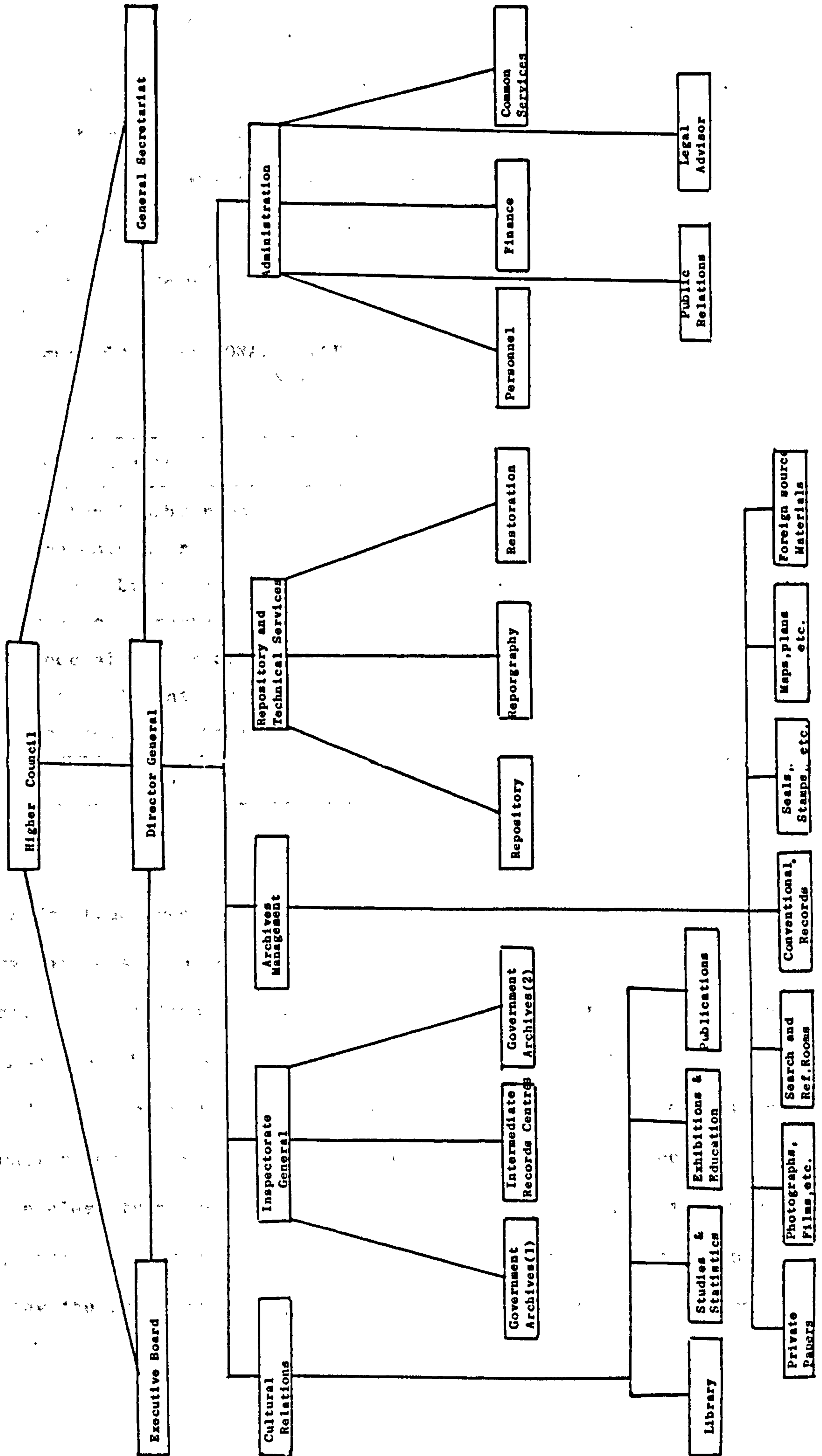
of record keeping in the state offices; and d) inadequacy of accommodation and equipment - the NCA now occupies the second floor of the National Library building. The problem of accommodation will be solved by the construction of the Archives Complex which include buildings for the NCA, ARABICA, and the Arab Archivists Institute. Accordingly the organisational structure of the NCA will be as shown in figure (6.9). Ede (67), a Unesco expert, who visited Iraq in February 1980 to advise on the construction of the NCA building, had the following impression which is still valid:

The development of a national archives service in Iraq has lagged behind that of other cultural and administrative services. Whereas the Iraqi Museum, the National Library and many other national cultural and administrative institutions are housed in spacious and well equipped new buildings, the NCA has to make do with temporary and inadequate accommodation on the second floor of the new National Library building in the Bab-Al-Muaddam district of Baghdad. It lacks a sufficient number of trained staff, it does not have a proper legislative framework in which to operate, and even if this were remedied, it would not at present be able to accommodate the very large volume of papers which ought to be transferred to its custody by ministeries and state organisations (p.2).

6.5 Summary and Conclusion

We have noted in the previous chapter that Iraq witnessed the establishment of early libraries in history. In the Middle Ages, particularly from 750 to 1258 A.D., when Iraq became the centre of the Arab Empire and its flourishing civilization, it also witnessed the establishment of great libraries of the time. However, modern

Figure 6.9 : THE FUTURE ORGANISATIONAL STRUCTURE OF THE NATIONAL CENTRE OF ARCHIVES (66, pp.36-37).



library and information services made its entry in Iraq only during the twentieth century, particularly when college libraries began to be established in the 1920s and later on. In all, there are at present 8715 national infrastructures of library and information services (see figure 6.10.)

Figure 6.10 : NATIONAL INFORMATION INFRASTRUCTURES
IN IRAQ

Infrastructures	No.
National Libraries	1
Academic Libraries	57
School Libraries	8407
Public Libraries	156
Special Libraries	92
National Centre of Archives	1
Documentation Centre	1
Total	8715

These infrastructures are generally inefficient in many aspects of quality services. In most of the cases, the services provided are confined to traditional library services, i.e. circulation and reference. This is probably because the introduction of modern services tends to be based on or derived from traditional library services. In addition information infrastructures are generally inadequately equipped with the elements necessary for quality services, e.g. qualified manpower, appropriate physical resources, and information sources representing the user needs. This state arises from the fact that the

establishment and development of library and information services in Iraq have not been matched by a similar development of the resources available in the country. In conclusion, library and information services in Iraq are generally inadequate and consequently they play a minor role in the national development process.

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CHAPTER SEVEN

LIBRARY AND INFORMATION SERVICES IN IRAQ: COLLECTION, ORGANISATION AND UTILIZATION OF INFORMATION

7.1 Introduction

The primary function of an information infrastructure whether be a library, a documentation centre, or a national archives is to collect and organise printed and other forms of recorded information for use to meet present and future needs of the users. This Chapter aims at reviewing such practices in Iraq and the extent of their efficiency.

7.2 Collection

The collection of information in whatever form is the major task of an information infrastructure. The quality of services provided and the satisfaction of the user depend a great deal on the kind of materials made available. Thus the materials need to be selected with utmost care to include a sound collection of indexing, abstracting services, bibliographies, subject encyclopedias, catalogues, literature surveys, historical sources and a wide selection of newly published works and periodicals made available as soon as possible.

7.2.1 Selection of Materials

The goal of selection is to choose from among a great amount of materials those that best serve the needs of the user so as the materials selected be fully exploited. Cabeceiras(1) pointed out that:

It is in the area of materials and material selection that the library justifies its existence, for if the materials selected are not the best that can be provided and are not in demand or needed by patrons, then the library becomes a warehouse of unneeded, unwanted information (p.4).

Hicks and Tillin (2) state that:

The essential components of the goal of selection are the needs of the library's community and the resources of knowledge. The processes of selection brings these two components together. The accomplishment of this union depends upon professional expertise that combines good judgement, objectivity, and imagination with a thorough knowledge of the library's populace and both a comprehensive familiarity with those available in great variety through purchase, local production, or other means of procurement (p.139).

In Iraq, the essential components of the goal of selection are lacking.

The needs of the users are not known because not a single survey has ever been done to define that. Resources of knowledge of local production are insufficient owing to the situation of publishing industry in Iraq - discussed in chapter four (section 4.7).

Turning to the performance of the process of selection, we find that it is hampered by the lack of professional expertise and selection aids. The so-called professional librarians in Iraq, in most cases, lack the knowledge and skills to select the materials for their libraries. In many cases, the problem of selection does not lie in the librarians' hands. Materials for school and public libraries are selected and purchased by central committees in the parent organisations. In academic libraries selection of materials is shouldered by the chief librarians only, without any sort of cooperation or any advice of the academic staff who work in isolation from the library. The same

applies to the special libraries and the documentation centre. The general outcome of such state is the selection of materials that are slightly relevant to the users' needs. There is also a tremendous lack of materials in some important fields, particularly in scientific fields; meanwhile there is a surplus of materials in other fields which are not demanded. In addition a large part of the materials available is either out-of-date or of poor quality. Duplicates are a usual phenomenon with the result of wasting money and space. In general, there is no structure of responsibility for the selection of materials, and no guidance in identification of needs and evaluation of materials in our information infrastructures. The present status of professional personnel and the isolation of the information infrastructure from the community it is presumed to serve make it difficult to develop a procedure for material selection that can be performed objectively, functions clearly for all involved and results in building a well-balanced collection of materials. What is needed here is a sort of standards in the selection of materials and a close working relationship to be established between the information infrastructure and its user community.

7.2.2 Acquisition of Materials

Acquisition involves the performance of a variety of tasks to get the material needed to achieve the library's goals and which are designated through selection. Acquisition includes four main procedures - searching, ordering, accounting and receiving. To perform these procedures knowledge in book publishing and other media production, accounting and proficiency in budgeting are needed.

Acquisition for school and public libraries is performed by central committees in the parent organisations. These committees have nothing to do with the essentials of acquisition. They acquire the items available in local bookshops, and do not bother about the value and relevance of the item to the needs of the library community. But how they could bother if they are not aware of the library community needs? The only thing they may bother about is the provision of books to the library, whatever books. There is no defined budget for acquisition for school and public libraries; money spent for this purpose is from the budget of the parent organisation. The same applies to special libraries. University libraries have open-ended budgets for acquisition but they lack the expertise required for efficient acquisition. The eventual result is that a lot of money is wasted for most librarians do not check lists of books, to ascertain whether the materials they acquire are worthwhile purchasing. In addition purchasing materials from abroad is expensive. The very problem of acquisition lies in the absence of any sort of acquisition policy or regulation which may define the type of materials to be acquired, sources and methods of acquisitions, and payment. This generally depends on the librarian's judgement. For instance, the former General-Director of the National Library confined acquisition to the Iraqi intellectual production while the present General-Director has included the acquisition of international materials. The lack of a clear and defined acquisition policy has led to the collection of materials consisting of only books and periodicals. These are generally limited in scope, slightly relevant to users' needs, and in many cases containing obsolete items because weeding out is not

practised. Audio-visual materials, abstracting and indexing tools and other reference materials are poorly represented. Cooperative acquisition is not practised even among libraries within the same organisation. On the contrary, there is an obvious competition among libraries whether of different or same type in building their collections. This phenomena can clearly be witnessed in academic libraries. It is as the commentator in an editorial in the Times Higher Education Supplement (3) wrote

At present there is a kind of institutional autarky where collections are often built up willy-nilly. The librarian is blown along by academic furies and fashions and each library aspires to be another bibliographical "centre of excellence" (p.12).

Materials are usually acquired from local and foreign markets.

7.2.2.1 Local Market

The local market represents the output of publishing industry in Iraq. The overall structure of this market is made up of 441 bookshops spread in the major cities, but concentrated in the capital city, Baghdad (4) where sales are much better than in any other city. This market is limited in quantity because of the low and imbalanced production of publishing industry, and in scope with respect to subject coverage, particularly in science and technology to which library and documentation centres have to turn to foreign markets. Acquiring books from this market is easy and does not take more than two or three days in most cases. Local periodicals are acquired on the basis of subscription. Periodicals, i.e. newspapers and magazines, are distributed to the subscribers by the publishers. The local market suffers from publicity. Trade bibliographies are lacking and where they are available,

they are no more than elementary lists of books arranged randomly.

7.2.2.2 Foreign Market

We mean by foreign market, the market in the developed countries where the greater store of information, particularly in science and technology, is available. For a developing country like Iraq this market is of remarkable value in acquiring the know-how in science and technology appropriate to its own development process. Therefore, it is necessary that information infrastructures turn to this market and acquire the information in whatever form that is needed by those engaged in all the dimensions of development. This does not indicate that information infrastructures in Iraq, particularly university and special library and the documentation centre, are not acquiring materials from this market. In fact, they are, but there are a number of factors hampering the efficiency of this trend and eventually preventing the fulfilment of desired purposes. The major factor is the importation routine which causes in all cases a long time lag between the ordering and receiving of an item. The National House for Distributing and Advertising, founded in 1972, is the sole organisation responsible for the importation, exportation and distribution of publications inside and outside the country (5, p.6).

In performing such functions by this House which is applying traditional methods and techniques delays in acquiring materials for information infrastructure is a usual phenomenon. A university lecturer told the candidate that he requested the library to acquire a book needed for his course. The course started and ended but the requested book did not arrive to the library. This may be an exceptional case,

but on average acquiring materials from abroad takes about three months. What has been said here about books also applies to periodicals which at the time of their publishing contain an up-to-date information but when they arrive late to our libraries the information contained may become out-of-date. Acquiring information from data bases available in many developed countries is not practised because modern information technology i.e. computers, has not yet been applied, and communication channels like telephone and telex are still inadequate. This has denied scientists and research workers latest developments taking place in their fields with the probability that they conduct a research which has been already done somewhere in the world.

The problem of acquisition from abroad is a pressing one and requires attention by the authorities and librarians concerned. A sound acquisition policy is needed to cover such matters as the type and number of materials to be acquired, the sources and methods of acquisition, and payments. Besides, there is an urgent need to authorize special and academic libraries and the Scientific Documentation Centre to import their required materials directly from their sources abroad, and not through the National House for Distributing and Advertising; they should also be exempted from import procedures imposed on other goods. This will certainly minimize the time lag occurring at present and bring to the user up-to-date information in time.

7.3. Organisation

If the collection of materials is an important function of libraries, documentation and archives centres, so is the intellectual and physical organisation of these materials to facilitate accessibility to them by users.

7.3.1 Cataloguing

Cataloguing, as defined by Atherston (6), is the process by which one transfers certain technical data (call number, author, title, edition, imprint, collation, series notes, notes) about an item of information to a record (catalogue card), according to rules (p.132).

Since it is important that users should be able to identify as easily and accurately as possible a single item or several items appropriate to a defined need, the question of cataloguing arises. Hicks and Tillin (2) confirm this point by stating that:

The comprehensive goal of cataloguing is to assist library users and staff in the determination and location of available resources which will best suit their specific needs and best satisfy their particular purposes (p.168).

Cataloguing in Iraq is carried out by following the Anglo-American Cataloguing Rules (AACR, 1967) with very minor adaptations where required to suit local demands related to Arabic materials. Up to now the practice has been to divide a library's collection into European and Arabic collections. Each is treated separately. In almost every instance the European collection is far better organised because the technical data of the item is complete and many European materials include cataloguing in publication data. As for the Arabic materials, cataloguing is done in the light of the AACR but their successful adaptation depends very often on the competence of the individual cataloguer. The division of the cataloguing department into Arabic and European sections causes an even greater technical gap between the two collections for most of the cataloguers in the Arabic section cannot read any European language or make use of Western tools. The card

catalogue is used in all libraries except in the greater majority of school libraries where wall lists of books are used instead. However, no attempt seems to have been made towards standardizing the elements of the catalogue entry and the extent of description. The result is that a given item may be catalogued differently in each library. The lack of standard cataloguing rules for Arabic materials is not the only problem that faces cataloguers in our libraries. There is also the problem of cataloguing foreign materials which do not include cataloguing in publication date. Cataloguers in almost all cases feel difficulties in maintaining foreign publications which constitute a major part of the library's collections, particularly in science and technology, medicine and agriculture. Processing of these materials requires basic knowledge of the subjects and their language in addition to the library techniques. Unfortunately language and subject knowledge is lacking except for literary works in some cases. People with scientific or technological qualifications do not like to work in libraries at all because their status and payment are much better elsewhere than in libraries. The absence of authority uniform cataloguing rules for Arabic materials besides the difficulties faced in cataloguing foreign materials have led to the building up of unsatisfactory and discouraging catalogues. Manzoor (7), who worked in Basra University Central Library, had this impression about its catalogue:

In most of the cases importance of catalogue, types of catalogues i.e. Author, Title, subject, information available on the card, arrangement, concept of surname and fore-name, call number, etc. is not clear (p.10).

The problem of cataloguing is not in Iraq alone, it is common in all Arab countries. This problem was identified by some Arab scholars in the profession and attempts to overcome it have been made since early 1960s. The proposed code of Rules of Descriptive Cataloguing for Arab Libraries (1962) by M. Sheniti and M. Mahdi; the list of Entries of Arabic Authors; First List up to 1800 A.D. compiled in 1961 by M. Sheniti and A. Fahmy, were accepted by the participants at the Cairo Seminar (1962) as a basis for future work toward the cataloguing of Arabic material (8, p.138). The Arab League also realised the problem of processing Arabic materials and consequently organised conferences to discuss the problem of cataloguing, classification, subject headings and bibliography. As far as cataloguing is concerned, the First Arab Bibliographical Conference held in Riyadh, Saudi Arabia in 1973, recommended the arabization of the International Standard Bibliographic Description (ISBD) and compiling unified entries of Arab authors (9, p.35).

The Second Arab Bibliographical Conference (10) was held in Baghdad in 1977 to see to the accomplishment of the work recommended in the first conference. It was found out that the work was not accomplished completely and thus each Arab country was advised to carry on using the cataloguing rules already in use until the accomplishment of the work. Unfortunately, so far there appears no sound solution for the cataloguing problem and that each Arab country and its individual libraries and documentation centres catalogue their materials in their own ways. Centralized and cooperative cataloguing is lacking. These factors have hampered the compilation of a union catalogue. As a step

to overcome the problem of cataloguing, we may suggest that Arabic publications be supplemented with Cataloguing In Publication Data (CIP) as it is with Western publications. In Iraq, this can be done by the National Library when a publication in print is submitted to it by a publisher or an author to be allocated a legal deposit number. In this way we may ease the task of and reduce the demand for cataloguers which Iraq lacks very much. On the other hand, in the absence of authorized and uniform cataloguing rules, we may at least achieve uniformity in the data on the card catalogues available in libraries. This suggestion is not difficult to put into practice if an initiative be anticipated by the National Library and formally backed by the Ministry of Culture and Information.

7.3.2 Classification

Classification is the act of grouping like things together. All the members of a group - or class - produced by classification share at least one characteristic which members of other classes do not possess (11, p.9).

In our context classification implies the grouping of documents alike in subject. The primary objective here is to achieve two purposes a) to arrange documents on shelves, for example, that documents on the same subject will be found together and documents on related subjects will be found near them, and b) to enable a particular work to be easily found by knowing in what part of the scheme it will have been located. The ultimate goal of classification is to enable users to find any required document or documents from the total holdings as quickly and easily as possible. Classification is done according to

specific schemes such as Dewey Decimal Classification (DDC), Library of Congress Classification (LC), Colon Classification, and Universal Decimal Classification (UDC).

In Iraq, the English version of DDC is used with modest and different local modifications, to accommodate Arabic materials, particularly Islam, Arabic language and literature. Below are some examples (12,13):

DDC English version	Arabic Modifications
220 The Bible	220 Islam
230 Christian Theology	230 Koran
410 Linguistics	410 Arabic language
810 American Literature in English	810 Arabic literature
953 History of Arabian Peninsula and adjacent areas	953 "Islam and Arab History"

Arabic materials are usually classified and shelved separately from foreign language materials. In such a practice the primary purpose of classification to group like things together is not met. For instance, works of Charles Dickens translated into Arabic are found in Arabic collections, while Arabic works translated into English are found in the collections of foreign language materials.

For the European language materials, the DDC is used but in some cases the use of different editions has led to little consistency in locating materials. Most of the libraries do not use the DDC as it is. They modify this scheme according to their knowledge, so they abbreviate some numbers which are not related to the same subject.

The problem of classification in the Arab libraries is so big as that of cataloguing. Efforts have been made by individuals and the Arab League to overcome the deficiency in classification of Arabic materials. The adopted and modified Dewey Decimal Classification Scheme by M. Sheniti and A. Kebesh was a result of such efforts. It was accepted by the participants at the Cairo Seminar (1962) as a basis for future work towards the classification of Arabic materials (8, p.138). The Arab League has conducted studies on Arabic amendments to the DDC, and experiments with an Arab classification system for Islamic disciplines (9, p.35). However, there is still lack of uniformity in classification. Such lack of standard rules for classification scheme is so widespread that almost every library has even a different version of the DDC which is the most well-known in Iraq. The state of classification in Iraq as well as in all other Arab countries requires the preparation of a union version of classification scheme, rather than many versions in each country or even individual libraries. The preparation of such version must be a coordinated effort so that the result may be acceptable to all concerned. As a proposal, an Arabic translation and adaptation of DDC may be prepared after discussion and consultation with Arab experts in the different fields of knowledge. The DDC numbers used in the nineteenth edition should be the basis of the new Arabic edition to take advantage of the latest development of the scheme. Special attention should be given to the areas where such classification does not allow for enough handling of Arabic materials related to Islamic culture, Arabic language, literature, history and society.

7.3.3 Subject Headings

Subject cataloguing is to list under one uniform word or phrase all materials on a given subject that a library has in its collection. A subject is the topic treated by the author in his publication. A subject heading is the word or phrase that expresses this topic. A subject entry is the catalogue card with the subject heading placed at the top as the filing medium. The objectives of subject entries are to a) enable a user to find a material of which the subject is known; and b) show what the library has on a given subject and in a given kind of literature (14, p.17). In Iraq, Sears List of Subject Headings is used. As with classification and cataloguing, the problem of formulating uniform subject headings for Arabic works is acute. The current practice is to translate from Sears to treat Arabic materials. There are no lists in Arabic except what is available in individual libraries as a result of individual efforts. In many fields, particularly in science and technology there is the problem of terminology in a language which has only recently started to develop technical terminology. Besides, the Arabic language is rich in synonyms but few libraries have 'see' and 'see also' references. Here arises the need for the development of a special theory and philosophy for the construction of authority list in Arabic. Since subject headings are dependent on the structure of language, and Arabic is very different from English, grammatically translation will not provide a satisfactory answer and the theory and philosophy needs to be developed before any list can be produced.

The deficiency in subject headings is well recognised by Arab librarians and organisations and thus efforts have been and are being

made to overcome this deficiency. M.Aman (15) for instance, devised rules for Arabic subject headings. The Arab League produced principles and rules for formulating subject headings in a document entitled Towards Arabic Subject Headings. The Second Arab Bibliographical Conference (1977) (10) recommended the adoption of such principles and rules by all Arab countries. The Conference also urged the Arab League to form a committee of specialists to prepare comprehensive Arabic subject headings which meet the needs of libraries and information centres in the Arab World (p.6).

7.3.4 Bibliographic Control

Publications by themselves are of no value to the information community without the records which inform of their existence and provide access to their contents. Here stems the necessity of maintaining bibliographic control in each country. National bibliographic control is significant for each country to discover, identify and record all the publications produced in a country so as to

- a) build up the national library and archival collections;
- b) satisfy the information needs of the nations; and
- c) contribute to the development of an integrated library, documentation and archival infrastructure (16, p.1).

Since the current trend is to develop Universal Bibliographic Control (UBC), national bibliographic control is regarded the essential requirement to promote UBC.

UBC is a long term programme adopted by IFLA and Unesco as a major policy objective to promote a world-wide system for the control and exchange of bibliographic information, so as to make universally and

promptly available, in a form which is internationally accepted, bibliographic data on all publications issued in all countries.

Through UBC it may be possible to establish an international bibliographic network made up of component national parts, all integrated at the international level to form the total system (17, p.5). In order to achieve the objectives of UBC, each country should establish:

- a) the means of ensuring that it is possible to make the bibliographic record of each new publication as it is issued, i.e. by legal deposit or similar government regulations;
- b) the administrative machinery by which the bibliographic record can be made: that is the establishment of a national bibliographic agency which will:
 - prepare the authoritative and comprehensive bibliographic record for each new publication issued in the country in accordance with internationally accepted bibliographic standards;
 - publish those records with the shortest possible delay in a national bibliography which appears regularly (15, p.3).

In Iraq, as well as in other Arab countries where classification and cataloguing tools are deficient and ununified, bibliographic control as one may expect is equally deficient. The first known Arabic bibliography is AL-Fihrist (The Index) compiled by Ibn AL-Nadim (995 A.D.) and covering Arabic literature to the end of the tenth century.

AL-Fihrist was described as

...an index of books of all nations, Arabs and foreigners alike which are extended in the Arabic language and script on every branch of knowledge, comprising information as to their compilers and of their authors, together with the genealogies of those persons, the date of their birth, the length of their lives, the time of their death, the places to which they belong, their merits and their faults since the beginning of every science that has been invented down to the present epoch, namely the year 377 of the Hijra (995 A.D.) (18, p.26).

The dawn of the twentieth century marked a new era in the history of Arabic culture and bibliography. After a long period of intellectual stagnation, beginning with the Mongols invasion in 1258, a renewed enthusiasm for learning dispelled the gloom which so long overshadowed the Arab world. For centuries, many factors had been at work to bring beneficial change in the Arab bibliographical activities. The West began to take interest in the East by collecting, organising and studying its long-forgotten literature. This renaissance added new elements to Arab librarianship and bibliographical control. Legal deposits were introduced and national and subject bibliographies began to be published by research and academic libraries. In the first half of the twentieth century the Arab world was lagging behind in respect to proper bibliographical control of materials and adequate bibliographical services in all its aspects. At the time before independence there were few bibliographies compiled and published by Orientalists. The subject limitation of these bibliographies can be defined as historical, religious and literary. The most noteworthy example of such bibliographies is Brockelman's historical bibliography of Arabic literature from the earliest times to the twentieth century. This bibliography is still a valuable source of both available and unavailable Arabic manuscripts and early books in different subjects. A common feature of the earliest Arab bibliographies is that they are the works of individuals, with little or no outside financial or moral support (19, pp.249-250). In a report aimed at presenting an account of bibliographical activities in various countries during the period from September 1951 to August 1952 and at formulating an accurate idea

of existing bibliographical situation, it was stated that none of the Arab countries had a national bibliography (20, p.217). The Beirut Seminar (1959) recognized this situation and recommended the

Establishment in each country of a current national bibliography which should be the responsibility of the national or other library designated as copyright deposit and centre of preservation of publications (21, p.121).

The Arab librarians have only recently become aware of the part that they should play in the production of bibliographies.

The production of bibliographies in Iraq started in 1963 when the Central Library of Baghdad University began issuing its Iraqi Bulletin for Publications which covers materials received by legal deposit. This bulletin did not cover all materials published in Iraq as regards government publications, university theses and works of Iraqi authors published abroad. It so remained until 1967 when the National Library started publishing the same bulletin. The National Library published five issues of this bulletin for the years 1965 - 1969, one issue for each year (22, pp.39-41). In 1970, the Deposit Law was issued and the National Library was designated as the legal depository for Iraqi publications (23, p.54). Accordingly, the National Library started issuing the National Bibliography of Iraqi publications quarterly. The first issue appeared in 1971 under the title Depository Bulletin of Iraqi Publications, of which thirteen numbers were issued during 1971-1974. The title was changed in 1975 into Iraqi National Bibliography (INB) which covered the numbers (14-16). After the release of Arabic language preservation Law in 1977, the title was changed into AL-Fahras AL-Watani Lel-Matbuat AL-Iraqiya, as well as maintaining

the English version, Iraqi National Bibliography (24, p.5). It is to be regretted that the INB is not published soon enough after the time of the publication of the materials included. Frequently the printed bibliography is issued so much later that the bibliographic information becomes somewhat of an academic matter. For instance, the INB (issue No.25) printed in 1980 includes the materials published in 1978 and 1979 (24). The INB does not meet the international specifications recommended by the International Congress on National Bibliographies held in 1977 (25) with respect to the materials included in national bibliographies, presentation of the printed national bibliography, and content of the bibliographic record. The INB includes printed materials only, audio-visual are not represented. As regards its presentation the INB does not include ISSN and cataloguing in print entry, and the paper size used is A5 (the Congress recommended size A4). To fulfil the objective of UBC, the Congress (25) recommended that the national bibliographic agency be responsible for preparing the comprehensive bibliographic records of its national imprint and in so doing follow international cataloguing principles and adopt: international bibliographic standards, specifically the ISBDs; and international standard identifying numbering systems such as ISBN etc,... (p.14).

Neither ISBDs nor ISBN has been followed by the National Library (the national bibliographic agency in Iraq) in preparing national bibliographic records. Beside the INB, the National Libraries issues specialized bibliographies on requests and national occasions.

The Central Library of Baghdad University issues occasional general and specialized bibliographies on materials available in its collections. The following may be listed as examples:

- An Alphabetical List of Books and Periodicals on Petroleum; 1967, 1971.
- List of Theses admitted by the University of Baghdad; 1973, 1975, 1976, 1977.
- List of Social, economic and Educational Books on Arab World available in the Central Library of Baghdad University, 1973.
- Classified List of the Publications on Architecture and City Planning, 1971.
- Classified List of the Publications of the United Nations Department in the Central Library of Baghdad University, 1965.
- Index of Arabic Periodicals available in the Central Library, 1967.
- Iraqi Government Publications available in the Central Library of Baghdad University, 1978.
- Iraqi Bulletin for Publications: 1963-1977.
- Index to the Bulletin of the College of Science : 1956-1970.
- A Bibliography on Contemporary Iraqi Woman, 1975.

The Iraqi Scientific Documentation Centre issues its periodical bibliographic publications which are listed in Chapter six - section (6.3.2).

The Directorate of Documentation and Studies in the Ministry of Education issues a monthly bulletin of the publications received by the Documentational Library in addition to other bibliographies and directories dealing with education (26, p.85). Retrospective bibliographies are very limited. The ones available are: Brockelman's historical bibliography of Arabic literature from the earliest times to the twentieth century published in 1937; a retrospective bibliography of Iraq, compiled by S.C.Dodd and published by the American University of Beirut in 1936 (19, p.250); and a catalogue of Iraqi publications covering the period 1856-1972 (27).

Generally speaking bibliographic control in Iraq is inadequate and does not meet international standards adopted by IFLA and Unesco for the purpose of promoting Universal Bibliographic Control. This state of bibliographic control leads to many problems in acquisition work, for bibliographic verification it is difficult to carry out and it is also difficult to keep aware of new publications since the documentation of such materials in Iraq is deficient. The problem of bibliographic control does not only hamper acquisition work in national information infrastructures but also in those abroad having interest in obtaining Arabic materials. In addition to the inadequacy of printed national and other bibliographies, trade bibliographies are lacking. To overcome the problem of bibliographic control in Iraq we have to meet such arising needs as: a) the development of the Department of Bibliography in the National Library into a national bibliographic agency equipped with the technical and human resources required to produce quality bibliographies; b) the application of international standards adopted by IFLA and Unesco in order to contribute to the achievement of UBC; c) the compilation of a union catalogue of works published in or on Iraq and forming a part of the collection of libraries; d) periodical and newspaper directory, to be issued annually and to include all continuations, whatever their frequency and publishers, whether government, association, business, corporation, or any other; e) production of standard trade bibliographies to facilitate the acquisition of Arabic materials locally and abroad; f) including audiovisual materials in bibliographies; and g) the application of modern techniques in producing bibliographies to ensure speed and accuracy.

By and large, efficient bibliographic control can be achieved only if the documentation services together with the book trade and publishing are effectively organised.

7.4 Utilization

Information is a resource, but its effectiveness, like that of tin ore in Cornwall, money in the bank, and artistic ability in the young, depends on what can be made use of it (28, p.3).

Besides, the proper use of information and services is a very important element that forces the information infrastructure to do its best to offer quality services. In Iraq, there are many indications that information services are underutilized. This is a two-factor problem - the library and information services (suppliers of information); and the potential users of information.

7.4.1 The Problem of Under Utilization

7.4.1.1 Library and Information Services

For library and information services to be properly utilized, they should anticipate to the needs of the community for which they are primarily established. In Iraq, there is a gap between the services provided and the actual needs of users. This arises because the introduction of modern library and information services has tended to be based on, or derived from, traditional library services with no consideration being taken of the categories of users and their varied needs. The users are very seldom associated with the planning and operation of the services. Once the services have been established, no systematic effort is made to publicise and market them, to attract users,

and to evaluate the use of information and the efficiency of the services provided. As we have seen in chapter six, the services provided by the overall structure of libraries, documentation and archives are generally deficient and that users have no faith in these services. In a developing country like Iraq where information consciousness is still in its early stages, no publicity of the services available to potential users and of the importance of information as a national resource has been practised. In almost all the cases, library and information services, and their potential users live in isolation from each other.

The lack of user education in Iraq contributes largely to the under-utilization of the existing library and information services. The purpose of user education as defined by Malley (29, p.365) is to make the user aware of the extent and number of the library's services and the information sources available to him; and to teach him how to use these services and sources. Thus, in the absence of user education, the potential user in most cases is unaware of and unable to use the services and sources available for him. Consequently, the user does not know what material he wants. That who does cannot find it and fears to reveal his ignorance when seeking assistance. Such a user, who is typical in Iraq, is left in a vicious circle. The typical users of information services in Iraq, feel helpless in locating the desired information and they have to waste much time for getting the desired material. Some of them fail to get and they do not ask for any help from the staff because of their shy nature. This discourages the readers to a greater extent. From his experience in the Central Library of

Basra University, Manzoor (7) has the following observations. Request is usually made with the circulation staff without consulting the catalogue. Demand is made by the title, author or even sometimes by the colour of the book. Readers consulting the catalogue behave differently. A reader interested in a book by Smith will start searching the catalogue bearing the letter "S" without realising the type of catalogue whether author, title or subject. It is just a matter of trial and error that the student may find the desired information. In some cases the helpless student pulls out the drawer bearing the desired information and presents it to the counter staff or copies out most of the information available on the card for recalling the desired material. If the desired material is not available no alternative approach is made. Even the circulation staff will not suggest to the reader to look for some other title (p.10). This situation indicates the lack of library skills among readers, which is an eventual outcome of the lack of any sort of user education programmes. If such is the case, in university libraries which are the most developed in Iraq, the case as we may expect is worse in other types of libraries.

Current awareness services have come to be very effective means in the race for keeping abreast of scientific and technological achievements. It is felt that if discoveries and new developments can promptly and sufficiently be brought to the attention of scientists and engineers at large, technological progress may be accelerated. Current awareness is intended mainly to inform the user of the existence of newly published or newly available documents which are likely to be relevant to his professional needs and interest. Besides, current

awareness has the advantage of saving the user the time spent in searching and scanning current materials in his field of interest, and it discovers materials which he may have missed by ignorance of potential useful sources. Success of a research project is largely dependent on the recognition of information which saves the time of the project team or it may alter the direction of the project altogether to avoid the duplication of an already conducted research. Unfortunately in Iraq, current awareness has been left to the users themselves. The only means of knowing what is available for them is the catalogue. Thus the user is not told of what he is not aware of. The result is that a large number of potentially useful sources may not be utilized because their availability is not made known to the users who need them.

The closed access system followed along with the storehouse regulations imposed on material circulation in most of libraries in Iraq has its reverse impact on the utilization of library materials. In the case of closed access browsing along the shelves and the surprise of serendipity are denied the library users. In Iraq, as well as in other developing countries, this trend of closed access is a general phenomena. Asheim (30) stressed this point by stating that

It is a first observation of any visiting librarian in any type of library in developing countries that the books are generally in locked cases and locked stacks. It is not useful to find bookshelves fifteen to eighteen feet high, where the books cannot be reached or even identified (p.9).

Access to locally produced information is not as satisfactory as it ought to be. For instance, there is no systematic collection of reports produced by the government or on its behalf, since most of reports

produced are not published, their potential users are unaware of their existence and a valuable information source is wasted. Access to information is also limited because cooperation agreements to facilitate access are non-existent. What exists is only ad hoc personal agreements. With respect, to foreign and international information, access is more limited by its high cost; by the fact that too little world literature is to be found in Iraq and that what exists is scattered among different libraries without any agreement for resource sharing. The deficient bibliographical activities as we have noted in section (7.3.4) of this chapter, have their contribution to the limited access to information and eventually limited utilization.

7.4.1.2 The Users

The second factor of the problem of under-utilization of information is the potential users of information. Many potential users are in fact not motivated, or not even interested in this matter because of social, cultural and educational factors. The educational system in Iraq generally places no emphasis on information. Independent studies (except in postgraduate study by research) are not followed at all since the advancement along the educational ladder depends mainly on memorizing prescribed textbooks and lecture notes. Scientific and academic research, conducted in Iraq, does not follow the model prevailing in the developed countries which are the major generators and users of information. For instance, the policy of 'publish or perish', which result in considerable production and consumption of all kinds of information within the universities of the developed countries (31, p.243) is not followed in Iraq. In a study, carried out by Unesco and United

Nations Interim Fund for Science and Technology for Development (IFSTD), to determine the real needs and options for access to information in developing countries, it was found out that:

The concept of information, and particularly of systematically organised technological information, has clearly not yet made its entry in the developing world as a major objective, and still plays a minor role in the general flow of communication. Potential users are therefore not very accustomed to technical reading matter. The fact that the bulk of available technological information is conveyed by foreign language is also a great impediment (31, p.243).

Information has not yet become a vital element that touches the lives and property of the members of the society like medicine, education, law, for instance. This may be attributed to the fact that the information needs of the individual are not stimulated like that of medicine and education. Socially, reading except for motivation, i.e. reading for examinations to advance along the educational ladder and for promotion at work, ranks very low among the individual's interests. Culturally, reading is not an established habit in the society because education in all levels does not cultivate this habit in the individual. Those who read, prefer buying reading materials to read at home to visiting a library to make use of its holdings. Probably they do not know that a library exists in their area or where it locates. The hot weather in summer makes almost all people retire to bed after working hours. A considerable part of daytime is thus gone to sleep, which may be spent in doing other useful things such as reading. Besides, most of the people are accustomed to spend their spare time outdoors, but the library may be the last thing which people think of spending some of their spare time in. The problem of under-utilization of library and

information services is not only prevailing in Iraq, but also in most developing countries. Sandhu (32) for example, talking about the problems of Punjab University libraries, concluded that:

....the Punjab Agricultural University Library which is one of the best libraries in India, is not used properly by the faculty and students to its maximum. There is an old saying that everybody wants to go heaven, but no body wants to die. With the same token one can conclude that every academic university wants a good library but, not many want to use it (p.152).

7.5 Summary and Conclusion

The primary function of information infrastructures is to collect and organise information sources in such a way to ensure easy accessibility to them by those who may need them. In Iraq, as we have illustrated in this chapter, the process of selecting and acquiring information sources is carried out in different ways and by different parties. However, the question of how and who does not matter if the process of selection and acquisition is efficient enough to achieve a well-balanced collection of materials representing the needs of the potential users. Unfortunately, selection and acquisition of materials in Iraq is inefficient and that the materials collected are generally poor in terms of quality and quantity. The major factors contributing to this state are: a) the lack of acquisition policy and selection tools; b) the lack of professional expertise; c) the lack of cooperative acquisition; d) routine procedures imposed on material importation from abroad; e) the lack of cooperation between the library and its community; and f) the publishing industry in Iraq. As with selection and acquisition, the organisation of materials is deficient due to the lack of uniform

cataloguing and classification rules to treat Arabic materials. Internationally accepted cataloguing rules (i.e. AACR) and classification schemes (i.e. DDC) are adopted but many difficulties are faced in processing Arabic materials. Each library has found its own solution with the result that a single item may be catalogued and classified differently in the libraries holding it. Bibliographical activities in Iraq started in 1963 when the Central Library of Baghdad University began issuing its Iraqi Bulletin for Publication. Producing a national bibliography started in 1971 with the first issue of the Iraqi National Bibliography (INB) published by the National Library. Some other general and specialized bibliographies are also produced by individual libraries and or persons. Retrospective bibliographies are very few and are results of individual efforts. Iraq is still lagging behind with respect to proper bibliographic control of materials and adequate bibliographical services in most of its aspects. Under-utilization of information is a general phenomena in Iraq. This is an outcome of two joint factors - a) the inadequate library and information services available; and b) the potential users who are not socially, culturally and educationally motivated to use information in the range of their activities. The problem of collection, organisation and utilization of information requires a lot to be done. What to collect should be based entirely on the identified needs of the potential users. How much to collect should be determined in a clear acquisition policy where standards be defined and adopted. The question of organisation requires the adoption of uniform cataloguing rules and classification scheme to achieve uniformity of information

in bibliographic records and ultimately facilitate the identification of the existence of information sources. Consideration should be given in this respect to the handling of Arabic materials related to Islam, Arabic language, literature, history and society. Efforts are needed to introduce information to the society as a major objective in the general flow of communication. Publicity campaign to demonstrate the importance of information as a resource is required in this respect. So is needed an action to identify the users' needs and the factors that motivate them.

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CHAPTER EIGHTLIBRARY AND INFORMATION SERVICES IN IRAQ:MANPOWER PROVISION8.1. Introduction

The quality and availability of manpower are probably the most decisive factors determining the success of library and information services. The vital role of manpower has been widely recognised and considered. Professor Havard-Williams (1) in this respect states that:

Information provides the key to much of the scientific and technological development which continues minute by minute, day by day. For success in this venture, ... the best possible personnel are required (p.26).

The Natis Conference, 1974 (2) concurred:

....there is fairly general agreement on one proposition: the single most important element in the building of national infrastructures is qualified manpower (p.36).

This indicates that the provision of adequate numbers of suitably trained personnel is an essential precondition of the provision and operation of library and information services.

A programme for the development and provision of library and information services cannot therefore be considered complete without a corresponding programme for the provision of adequate numbers of suitably trained staff (3, p.245).

The idea of establishing programmes for the provision of trained personnel goes back to the 1880s when Henry Tedder in Britain and Melvil Dewey in the United States were proclaiming to librarians in a conference that the time had come to speak of their vocation as a profession.

Training on the job in apprentice fashion was the only way of becoming a librarian (4, p.69). But, as stated by Professor Havard-Williams (1);

The apprentice pattern was completely unable to provide the number of young people necessary to fill the available posts; shortages of candidates were reported whenever there was no artificial restriction of demand (p.7).

Consequently, formal courses in librarianship were started at universities or some other authorized institutions. In the United States in 1887 Dewey got his library school at Columbia College. In 1893, a conference of librarians in New York resolved that schools of librarianship should be attached to universities and that the educational requirements for entry should be the same as for other university courses. Britain also followed suit and in 1919 a school for librarianship was opened at University College, London (4, p.70). Recognizing the decisive factor of the human element in the provision of adequate library and information services, UNISIST and NATIS, the two component parts of Unesco's General Information Programme, stress the necessity of providing professional education and training facilities. UNISIST Recommendations 13 (Manpower development) calls for an effort to

provide information specialists, librarians and documentalists with improved educational facilities (5, p.56).

NATIS Objective 8 (Supplying manpower for NATIS) recommends that:

National institutions and programmes of professional education for information manpower should be established as integral parts of the national educational structure at universities or equivalent institutions of higher education, and as the principal means of supplying adequate numbers of professional staff to meet the demand for qualified personnel to operate the national information system (NATIS) (6, p.19).

This chapter focuses on the origin, development, scope, purpose and critical analysis of the current patterns for the provision of library and information manpower in Iraq.

8.2 Staffing of Library and Information Infrastructures

In considering the various aspects of library and information services in Iraq in the previous two chapters, references have been made to the lack of professionally trained personnel. This as was seen, has caused the library and information infrastructures to be operated by unqualified or semi-qualified personnel, and resulted in the provision of traditional library services, i.e. circulation and reference. In fact, in the Iraqi situation there are no standards in the designation of professional personnel. The current trend is that any person working in a library, documentation, or archives centres with professional qualification whether obtained through apprenticeship, a short training course, or academic education is designated as qualified personnel or as we shall call here professional. Moreover, any person working in a library other than administrative department, is generally called a librarian. Yet, whatever the designations are, the shortage of personnel who can efficiently plan and implement quality services, is still a well-known problem. Francis (7) stresses this point by stating that:

At present there is a great shortage of professionally qualified librarians in Iraq and in particular those with high level qualifications and some years of experience (p.16)

The acute lack of qualified librarians is well represented in the staff of school, special and public libraries which constitute the greater part of the national infrastructures. In the 8,407 school libraries

there are only 277 (3.3%) full-time staff with or without basic library knowledge. A typical school library in Iraq is a one-man library. Special and public libraries are, in most cases, staffed with civil servants who may learn the profession through the traditional apprentice fashion. The size of staff in the 156 public libraries is 780, only eighty-two are classified as qualified librarians. Although the university libraries are better organized and staffed, the shortage of professional librarians is a prevailing phenomenon. In 1960, when the Central Library of Baghdad University was established, it had a staff of only eight, and none of them had any library qualification. By 1981, however, the number of staff increased to eighty of whom thirty are classified as qualified librarians. Mosul University Library is manned by 110 people of whom only eleven have library qualifications. At present there are six university libraries run by eighty-seven professionals. In the National Library which may be considered as the mother library in Iraq, out of the eighty-eight qualified personnel needed, there are only fifty. In the Iraqi Scientific Documentation Centre whose actual need for qualified staff is fifty, only twenty-three are available of whom only one holds a master degree from the Department of Library and Information Studies, Loughborough University of Technology, U.K. In an archives centre three major groups of personnel are required to operate it with its various tasks and functions. These groups, as defined by Franz (8) are:

- a) for the archival function as such a specialized archival personnel is needed. From the head archivist down to the repository attendants this includes all the personnel engaged in the archival tasks of administering archival (or pre-archival records);

- b) for the technical function, the tasks in the field of conservation, restoration and photographic reproduction, various types of technical personnel are needed, who have to combine general competence in the respective technical disciplines with additional knowledge about the special conditions of archival material;
- c) for the administrative function, the administrative and financial management of the archives agencies as well as for the secretarial and office work, maintenance and cleaning, driving and messenger services, a certain number of general administrative personnel is needed, who have to comply with general administrative standards without any special training for the archival field (pp.33-34).

The National Centre of Archives (NCA) in Iraq does not meet the minimum of personnel requirements with regard to the archival and technical functions which are the most essential elements of operating an archives centre. Among the thirty-five persons responsible for the archival and technical functions no one holds archival qualification more than an ordinary national diploma (two-year course after secondary school) or some years of experience. What is astonishing about the staffing of the National Centre of Archives is that its functions and their personnel requirements are not recognized by the parent authority - the Ministry of Culture and Information. The general notion held is that the NCA functions do not differ from that of any record department in any other government office where records are numbered and filed in absolute fashions. To prove this trend, the General-Director of the NCA in the interview with the candidate stated that once an official was transferred to him from another office because he was a trouble-maker. This means that that official was punished by transferring him to the NCA.

The problem of staffing does not only lie with the professional personnel but also with the non-professional - the clerical staff who

often are not in public view. On this category of library and information personnel, Mustafa (9) said that:

It would be unrealistic or luxurious to give this topic any special consideration at a time when we suffer in developing countries from an acute shortage of professionals (p.182).

Yet, a library clerk performs duties involving simple tasks related to typical library goals and functions, but are bound to specific routines and procedures. Some examples of clerical works are maintenance of records, typing, physical preparation and maintenance of materials, and circulation work. These duties are so important to the library and its clientele that attention is required to be paid to the recruitment of clerical staff. In addition, the user's impression about the library is, in many cases, made through his direct day-to-day contacts with the staff at the circulation counter. The library and information infrastructures face difficulties in recruiting clerical staff, particularly typists in English language and those skilled in material maintenance. This difficulty arises, because such people are not sufficiently available in the country and the nature of work related to its low status and payment makes the potential recruits unwilling to work in a library. This has resulted in the availability of staff, particularly at the circulation counter, who are generally indifferent and helpless to the users. Administrative heads of library and information services who, as stated by Boadi (3, p.246), must be suited for the work both in temperament and in training to enable them to plan, develop and implement the required services, are very few exceptions in library and information infrastructures in Iraq. In the majority of cases such positions are filled with people

completely lacking professional qualification and experience. This can be witnessed in the staffing of the better developed infra-structures in Iraq - the National Library, university libraries and the Iraqi Scientific Documentation Centre. The General-Director of the National Library is a poet. The General-Director of the Scientific Documentation Centre is a Ph.D. holder in agriculture; the Mosul University Librarian holds a Ph.D. in Arabic language; and in the University of Technology the Librarian holds a Ph.D. in Physics. Such practice, as stated by Thompson (46) is

a direct consequence of the library profession's defective and inadequate interpretation of its own role and status (p.14).

Out of the six central university libraries in Iraq, only two - Baghdad and AL-Mustansiriya - have professionally qualified administrative heads. The shortage in professionally qualified Iraqi nationals has led many libraries especially university libraries to employ foreign librarians. These librarians come mainly from Egypt, India, Pakistan, and in some cases from European countries. In addition to the fact that foreign librarians contribute to ease the staff shortage, many bring considerable experience to their jobs. Most of these people work in the cataloguing and classification of foreign materials particularly in the area of the English language materials. Such practice helps to overcome the foreign language difficulty faced by Iraqi librarians. Vacancies caused by the resignations of foreign librarians create problems for libraries because it is difficult to fill the positions with similarly experienced and qualified staff. Another problem for libraries employing foreign staff is that of expense. Foreigners working in Iraq are, according to

the government policy, paid almost double the salary paid to their indigenous counterparts. The size of staff does not depend on such factors as the population of the community served, the volume of use, and the range of services provided. For instance, Mosul University Central Library which serves a readership of 13,875 and holds a total collection of 166,400 volumes, is staffed with eleven professional and ninety-nine non-professional personnel. In Iraq the size of staff depends on such factors as a) the status of the individual library and information infrastructure in the community it serves and in the parent authority - where status is high, provision of extra staff is easy; b) the location of the establishment - most people prefer to work in the capital cities particularly in Baghdad; and c) the personality and position of the chief librarian or director in the parent authority - the stronger the personality and position of the librarian or director is, the more are chances for getting extra staff. Unfortunately, this has resulted in a clear imbalance in staffing. For instance, Mosul University Library, which is now the largest among its counterparts, has only eleven professional staff. On the other hand, AL-Mustansiriya University Library, which is smaller than that of Mosul, has twenty-one professional staff.

Library and information staffing in Iraq is generally inadequate because of the shortage in the professionally qualified manpower for which demand is much greater than the supply available. This has resulted, to a large measure, from the fact that library and information services in Iraq have developed rapidly in the recent years without a corresponding development in human resources. The imbalance between

demand and supply occurs because there are no reliable statistics on the manpower needs of the profession. Where the demands for personnel is higher than the supply, library and information infrastructures are forced to accept what is offered even on the expense of hampering the services.

An inadequately staffed library progressively lowers its service level. Below a certain point the fewer the staff the less able they are to meet demands (10, p.139).

The library and information infrastructures have no voice in the recruitment of any staff member although,

The recruitment of suitable staff is one of the most important tasks the library director has to perform. In the small system he is likely to be involved in the recruitment of staff at all levels. In the larger system he must feel confident in the judgement of whichever officers of the library are involved in recruitment (11, p.85).

In Iraq, those who select and recruit library and information staff are the administrators of the parent organisation. However, in most cases, selection does not exist because the number of candidates applying for posts is less than the number of vacancies.

The recruitment of potential professional personnel is affected by the fact that library and information profession holds a low status in Iraq. What is popular about the profession is that it is concerned with the stamping and arrangement of books on shelves. This tends to eliminate potential candidates who wish to enter the profession.

Additionally, in Iraq opportunities for responsible jobs, particularly for university graduates are numerous in both the public and private sectors. So what can we expect for a job which is popularly looked at as dull and without any rewarding prospects in life? The

problem of image is related to the lack of public understanding and appreciation of the role of library and information services in the social, educational and economic development of the nation. Iraq is not an exception in this matter. For instance, Ifidon (12), considering the problems facing African librarians, states that

One of these problems is the lack of appreciation of the need for libraries and their place in the social and economic development of a country (p.311).

On the Indonesian situation in this respect, Hardjo-Prakoso(13) wrote:

The social and economic status of librarians in Indonesia is still sad, especially for those who are working in libraries administered and financed by the government. They are civil servants and their status is similar to that of other civil servants within the government pay and classification plan (p.32).

Staffing of libraries, documentation and archives centres in Iraq with the professionals who are qualified to run them efficiently and effectively is still an arising problem. What we have considered in this section with what we shall consider in the next section will prove this thesis.

8.3 Education and Training for the Provision of Library and Information Manpower

Education for librarianship is an essential element in a well designed plan for national library development. Without well educated and highly qualified personnel, libraries, knowledge, books and cultural resources and services are but a hollow promise at least (14, p.411).

The history of library and information education and training in Iraq goes back to 1954, when UNESCO started sending library experts to

organise short library training courses. The first course of this kind was organised in 1954 by C.M.Saunders (U.K.) for college librarians at the Higher Teacher Training College in Baghdad (15,p.127-28). In 1957-1958, H.V.Bonny (Australia) conducted three training courses for college, public and school librarians. Each course lasted for one month. The syllabus covered book selection, ordering and processing, registration of readers and charging systems, periodicals, furniture and equipment; library planning, binding, reference work; assistance to readers; classification and cataloguing (16, p.124). A similar training course was organised in 1970 by A.Strivastava, for librarians at the Central Library of Baghdad University (17, p.325). One of the major objectives of these courses was to encourage enthusiasm and to promote the development of progressive attitudes in library techniques. In reviewing such courses organised in Iraq, Egypt, Iran, Lebanon and Syria, Sherify (18) came to the conclusion that:

The factors which have unfavourably influenced the success of these courses in the past have been the lack of sufficient time for their preparation, their short duration in relation to the wide range of subjects covered, lack of sufficient time for practical work, inadequate teaching materials in local languages, the fact that lectures are delivered in foreign languages with laboured and often inaccurate interpretation in the local national language, and the lack of demonstration libraries near the training centres (p.254).

As a result of the difficulties encountered in organising training courses by foreign library experts, proposals for the establishment of domestic library education and training programmes were forwarded by Unesco library experts to the Iraqi government. As long ago as 1957, H.V.Bonny had submitted a training course scheme for Iraqi librarians

to the Ministry of Education. D.R.Kalia, another Unesco library expert in Baghdad, put forward a scheme in 1960 to found an institute of library science in Baghdad University - a proposal which received a good deal of support within the University at the time (19, pp.303-4). In response to these proposals, the Central Library of Baghdad University started organising annual three-month courses in 1960 for librarians working in different libraries. This course was extended to six months in 1967, to ten months in 1969, and again to three months in 1970. The topics covered in these courses included classification, descriptive cataloguing, reference work (Arabic and English), acquisition, readers' services including circulation, and some other technical processes (20, p.43).

The expansion of education in all levels, evidenced by the establishment of new schools and institutions of higher education, the social transformation that the country has been undergoing; the expansion of research and development (establishment of the Council for Scientific Research, and postgraduate programmes in the universities) have all contributed to the establishment and development of library and information services. Accordingly, the need and demand for more professionally qualified manpower increased and put the training facilities offered by the Central Library of Baghdad University to a severe pressure. Consequently, a programme for library education was instituted in 1970 in AL-AL-Mustansiriya University. In the academic year 1972/1973 a Graduate School of Library Science was established in Baghdad University with the assistance from Unesco through United Nations Development Programme (21, p.26). In 1977, a regional institute for archival study (the Arab Archivists Institute) was established in Baghdad by the Arab

Regional Branch of the International Council on Archives (ARBICA) (22, p.3). The establishment of the Department of Librarianship in 1970 in AL-Mustansiriya University marked the ending of the training courses being organised by the Central Library of Baghdad University from 1960 to 1970. At present there are no such systematic library training courses in Iraq. What sometimes exists is only ad hoc training courses organised by individual libraries or government organisations with the assistance from the Department of Librarianship in AL-Mustansiriya University. The only facilities for the provision of library and information manpower now available in Iraq are those offered by the Department of Librarianship and the Arab Archivists Institute.

8.3.1 The Department of Librarianship, AL-Mustansiriya University, Baghdad

This Department was established in 1970 in AL-Mustansiriya University in Baghdad for a two-year course leading to a diploma in librarianship. In 1979, a four-year B.A. course was started. The Graduate School of Library Science, Baghdad University was incorporated with the Department in 1977. Since the academic year 1980/1981, the study in the Department has been of three programmes - a two-year diploma, a four-year B.A. (undergraduate programme) and a one-year post-graduate diploma course (post-graduate programme) (23, p.1). The objectives of the Department are:

- 1) To prepare qualified manpower of all levels for library, documentation and archives infrastructures.
- 2) To prepare specialized teaching manpower in the field of library and information science.
- 3) To prepare qualified people for research and development in library and information.

- 4) To raise the standard of profesional studies and qualifications.
- 5) To contribute to the building of professional literature through writing and or translation of foreign materials.
- 6) To establish relationship with relevant universities abroad and international organisations to benefit from their experience.
- 7) To develop the Iraqi library so as to enable it achieve its mission.
- 8) To develop library and information consciousness in the Iraqi society (24, p.9).

The undergraduate programme consists of eight terms and covers the courses listed in figure (8.1).

The Undergraduate programme is opened to secondary school graduates. Students who successfully complete the first four terms (two years) are awarded a diploma degree. Thirty percent of the diploma graduates can continue their study for the B.A. degree. The selection of the students to continue for the B.A. degree is based on the scores the student obtained in the diploma course. The methods of teaching and testing in these courses are lectures, practical works, seminars and written examinations. In the academic year 1980/1981, the number of students who sat the final examinations was 257 as shown below (23,p.1):

- First year	:	119 students
- Second year	:	87 students
- Third year	:	36 students
- Fourth year	:	15 students
<hr/>		
Total	:	257 students

Figure 8.1 : The Undergraduate Programme of the Department of Librarianship -
AL-Mustansiriy University (24, pp.10-13)

First Year		Second Year		Third Year		Fourth Year	
First Term/Topics		Third Term/Topic		Fifth Term/Topic		Seventh Term/Topic	
Principles of cataloguing & classification	Hrs/W. 6	Advanced cataloguing & classification	Hrs/W. 6	Principles of information & docum.science	Hrs/W. 3	Data Collection (in English)	Hrs/W. 2
General Arabic References	3	General foreign refs. (in English)	2	Bibliography (in English)	2	University libraries	2
The books & the libraries	2	Library procedures	3	Intellectual production - pure sciences	3	Intellectual production-humanities	3
Library procedures (in Eng.)	2	Archives	2	Public libraries	2	Audio-visual materials	3
Arabic Languages	2	Selection of library matls.	2	Comparative Classification	4	Advanced library admin.	3
English Language	2	Principles of statistics	3	Applied Psychology-libraries	3	French language	2
English Typing	2	National & socialist culture	2	French Language	2	National and socialist culture	2
National and socialist culture	2			National & socialist culture	2	Elective (1)	3
	21		20		21		20
Second Term/Topic		Fourth Term/Topic		Sixth Term/Topic		Eighth Term/Topic	
Cataloguing and classification	Hrs/W. 6	Advanced cataloguing & classification	6	Information storage & retrieval	3	Mechanized information storage & retrieval (in English)	2
General Arabic references	3	General foreign refs. (in English)	2	Subject bibliography (in English)	2	Special libraries	2
Introduction to library & information science	2	Documentation	2	Intellectual production - applied sciences	3	Intellectual production - social sciences	3
Library procedures (in Eng.)	2	Selection of library matls.	2	School libraries	2	Arabic manuscripts	3
Arabic language	2	Principles of library administration	2	Research methods	3	French language	2
English language	2	Psychology	3	Sociology	3	National & socialist culture	2
Arabic typing	2	Arabic language	2	French language	2	Seminars	3
National & socialist culture	2	National & Socialist culture	2	National and Socialist culture	2	Elective (2)	3
	21		21		20		20

Elective (1) Graduates of scientific section : either mathematics or physics
Graduates of Arts section : either Arabic literature or political economics.

Elective (2) Graduates of scientific section : either chemistry or biology
Graduate of Arts section : either the Koran or public administration

The number of graduates from this Department in ten years (1971-1980) is 1166 (23, p.13) (See figure 8.2)

Figure 8.2 : Graduates of the Department of Librarianship: 1971-1980

Academic year	No.of Graduates		
	Dip.	B.A.	Total
1971/72	130	-	130
1972/73	145	-	145
1973/74	220	-	220
1974/75	192	-	192
1975/76	190	-	190
1976/77	41	-	41
1977/78	47	-	47
1978/79	73	-	73
1979/80	31	16	47
1980/81	66	15	81
Total	1135	31	1166

The postgraduate diploma course, established in 1972, is a twelve-month course - ten months for academic study, and two months for practical training in different information infrastructures. This course is divided into two terms through which fourteen topics are taught - seven in each term (see figure 8.3).

Figure 8.3 : The Postgraduate Diploma Course,
AL-Mustansiriya University

First Term/Topic	Hrs/W	Second Term/Topic	Hrs/W
Principles of cataloguing and classification	6	Cataloguing & classification	6
General references	4	Special references	4
Introduction to library and information science	2	Mechanized documentation	4
Documentation	4	Bibliography	2
Library administration	2	Research methods	2
Selection of library materials	2	Administration of library procedures	2
Typing (Arabic & English)	2	Typing (Arabic & English)	2
Total hours per week	22	Total hours per week	22

The course is opened to holders of first university degree in any subject so as to equip libraries and documentation centres with personnel having subject specialization and professional qualification. The candidate should have a good command of English language, professional experience, and pass the written admission test. Methods of teaching are mainly lectures, practical work, and seminars. With respect to testing, all students are required to sit a final written examination at the end of each term, and submit a research report on an aspect of library and information problems. Besides, each student is required to pass an examination in Arabic and English typing.

The number of students in this course tends to be very small. In 1980/81, eleven students were accepted in this course but only two turned up (24, p.14). This is probably because the candidates could not get a study leave or they might have been offered another place in

another field of study. A master or a diploma course in other fields of study is always favoured by candidates in preference to this course in librarianship.

In all, there are fourteen full-time indigenous teachers in the Department of Librarianship, distributed according to their academic status as follows: (23, p.2)

Assistant professor	3
Lecturer	6
Assistant lecturer	<u>5</u>
	14

With respect to their qualifications, there are two with a Ph.D.degree and twelve with a Master degree, all but one are graduates from American and British institutions (25, p.131). Part-time staff or as is called by Professor Havard-Williams (1) 'the practioner' who

brings to the classroom the fresh quality of current experience and the present solutions of problems which the full-time teacher cannot match, (p.26)

is not available in the Department. . Part-time teachers available are only those who teach national and socialist culture, typing, and the elective topics referred to in figure(8.1).The staff/student ratio in the Department is about 1 : 18. In a NATIS document, it has been recommended that the staff/student ratio should not be less than 1 : 20 or more than 1 : 16 (1, p.26). In this matter, the Department meets the recommended standards. Does this mean that this ratio has been determined by the Department or the University authority, or it just so happened by itself? The answer is that this ratio has so happened by chance and without any pre-determination by the University or the Department.

This ratio has so happened because the Department cannot attract a large student body due to the fact that not many students like to study librarianship because of its vague image and low status held by the society. This can be evidenced in the number of students who leave this course every year. For instance, at the beginning of the academic year 1980/1981, there were 331 registered students in the Department. The number of students who sat the final examination was 257. This means that the number of drop-outs was 74 (about 22% of the total registered students) distributed as follows: (23, p.1)

First year	50
Second year	13
Third Year	11

In the other departments of other subject fields the staff/student ratio is about 1:50. The vague image of librarianship in the country has brought about negative attitudes in the students towards their study. This negative attitude has caused many students to be indifferent and frustrated with the probability of giving up their study if any other chance occurs to go somewhere else. This of course, affects the teaching activity and the complete implementation of the Department's programme. In the interview with the Head of the Department, Mr.N.M.Ali, the candidate learnt that the Department has a number of problems related to the equipment, teaching materials and accommodation essential for a quality teaching programme. Equipment required for practical work and demonstration are not available. On this point Dean (26) wrote

Clearly, unless you have available a reasonably sophisticated array of audio visual, microfilm and reprographic equipment plus demonstration collections of one sort and another, the curriculum content cannot be properly communicated. It is

no good explaining to a class the nature of the electrostatic process, unless the equipment can be viewed in operation. Practical demonstration is essential if a significant message is to be transmitted from teacher to learner (p.94).

Teaching materials in Arabic are very limited. Advanced texts are very rare, except for some translations of foreign literature which is generally irrelevant to the real situation and needs of library and information services in Iraq. The lack of teaching materials is a reflection of the very small production of professional literature in Arabic. Sheniti²⁷ states that

It is almost impossible to recall a single publication dealing with modern librarianship originally written in Arabic or even translated that was published before 1940 (p.221).

In twenty-five years (1947-1972) the Arab World produced a total of only 1555 titles in different forms of presentation on various library and information topics (28, p.232) as seen in figure (8.4). The problem of lack of professional literature in indigenous language is not limited to Iraq or the other Arab countries, it is generally common in developing countries. The most important factors contributing to this problem, as identified by Dougherty (29) are: a) the number of practicing professional; b) the current state of development within the professional association; c) the size, influence, and resources of the national library; and d) the national wealth of a country or its commitment to libraries in particular and education in general (p.276).

The other problem affecting the efficiency of the teaching programme in the Department of Librarianship is that of accommodation.

Although AL-Mustansiriya University has a new beautiful building, the

Figure 8.4 : Arabic Literature in Library and Information Science from 1947 to 1972

Topic	Books	Articles	Reprints and Chapters	Dissertation	Directories	Seminars and Conference papers	Reports and researches	Other forms	Total	Percentage
History, philosophy of librarianship	35	154	31	-	7	3	22	8	260	16.6
Bibliography	2	23	-	3	-	1	10	-	39	2.5
Acquisition	2	10	-	1	-	-	4	-	17	1.1
Cataloguing	9	32	3	4	-	-	12	1	61	4.0
Classification	18	23	1	1	-	-	4	2	49	3.1
Reference service	18	25	7	-	-	-	-	-	50	3.2
Lending and borrowing	1	3	-	-	-	-	-	6	10	0.6
Library cooperation, union	-	-	-	-	-	-	-	-	-	-
Catalogue & publications exchange	1	4	4	-	-	-	7	-	16	1.0
Library management & staff	-	10	-	-	-	-	-	-	10	0.6
Training in library and information	3	22	-	-	-	-	7	-	32	2.1
Planning and architecture	-	1	-	-	-	-	-	-	1	-
National libraries	7	27	1	-	1	1	12	11	60	3.8
Public libraries	6	49	3	1	-	-	9	5	73	4.6
University libraries	-	25	3	-	1	-	9	10	48	3.0
School libraries	22	115	7	1	2	1	14	10	172	11.3
Publishers & publishing	11	95	6	-	-	-	15	22	149	9.4
Art of the book, printing and building	28	93	11	-	-	1	9	4	146	9.4
Exhibitions & public promotion	-	18	-	-	-	-	1	3	22	1.6
Automation and data processing	-	8	-	-	-	-	-	-	8	0.5
Documentation centres	4	71	9	4	1	1	85	5	180	11.7
Systems analysis & design	12	39	1	1	-	-	1	-	54	3.6
Microfilm, reprography	1	6	2	-	-	-	-	1	10	0.6
Archives	15	28	1	-	-	1	9	7	61	4.0
Associations & societies	-	6	-	-	-	-	12	4	22	1.1
Maintenance and repair	-	4	-	-	-	-	1	-	5	0.3
Total	195	891	90	16	12	9	243	99	1555	100
Percentage	13.5	57.1	5.7	1.0	0.7	0.5	16.7	6.3	100	

expansion in students' enrolment has overcrowded the campus. As far as the Department of Librarianship is concerned, limitation in space has prevented the availability of laboratories or rooms required for practical works. The fourteen teachers are accommodated in five rooms where each room can only be suitable for one teacher if he or she is to be given the proper environment for the preparation of the lecture, correction of the students' work and tutorials.

Looking at the defined objectives of the Department and the resources available we can find a wide gap between them. This means that only few of the objectives can be achieved. We may ask a question here. Why should we have a long list of objectives when the resources required to achieve them are not there? Does not this mean that we stand very far from being objective and that quality is sacrificed for the benefit of quantity? It is no pride to list so many great objectives. The pride is in achieving the objectives however few and simple they are. Objectives can be redefined and developed as long as the required resources develop.

8.3.2 The Arab Archivists Institute, Baghdad

The Arab Archivists Institute was founded in 1977 in Baghdad on account of a recommendation adopted by the Second Conference of the General Assembly of the Arab Regional Branch of the International Council on Archives (ARBICA), held in Baghdad (Iraq) 12-22 September 1973 (22,p.3). The objectives of the Institute, as stated in its Statute (30) are:

1. Provision of Arab cadres qualified to
 - a. preserve, collect, store, reproduce and study Arab archives in a manner that facilitate access to it by researchers, historians and others.

b. organise the archives of governmental institutions in the Arab countries, so that they shall have a unified system which facilitates access to it, thus saving time and expense.

c. make a collection of archives concerning classical and modern Arab culture by scientifically organising widely dispersed documents so as to form basic references and sources in the writing of the modern history of the Arabs, on regional, national and international levels.

2. Promotion of scientific and technical skills and qualifications of Arab archivists on the educational and training levels, both theoretically and practically.

3. Introduction of the most modern and scientific methods applied in the organisation, storage, retrieval, reproduction, photography, and conservation of archives.

4. Exchange of skills, experience, studies and systems in the field of documentation with national, Arab and international institutes, centres and institutions that have a similar or approximately similar specialization to the Institute (pp.5-6).

The Institute is directed by a Higher Council and a Board of Administration.

The Higher Council is composed of:

1. Under-Secretary of the Ministry of Culture and Information (Iraq) (Chairman)
2. The President of ARBICA (First Vice-Chairman)
3. The Secretary General of ARBICA (Second Vice-Chairman)
4. The Vice-President of ARBICA (member)
5. The treasurer of ARBICA (member)
6. The Dean of the Institute (member and convener)

The Board of Administration is constituted as follows:

1. Second Vice-Chairman of the Higher Council (Chairman)
2. The Dean of the Institute (Vice-Chairman)
3. Three Iraqi members of staff (members)
4. Three Arab members of staff (members)
5. One member of staff (convener)

The Higher Council is the legislative authority and the Board of Administration is the executive authority of the Institute (30, pp.6-9).

The programme of the Institute is a two-year diploma course open to all Arab students with a secondary school certificate or equivalent. The course is equivalent to those of institutions of higher education. The duration of the academic year is fifteen weeks starting on the fourth week of September and ending on the last day of May. The methods of teaching and testing in this course are lectures, practical works and written examinations (30, pp.16-21). The course covers the topics shown in figure (8.5) (22, pp.20-21).

Figure 8.5 : The Two-year Diploma Course at the Arab Archivists Institute, Baghdad

First Year / Topics	Hrs/W.	Second Year / Topic	Hrs/W
Organisation of archives	2	Foreign references	2
Press archives	2	Archives classification	2
Arabic references	2	Archival terminology	2
Archival terminology	2	Arabic language	2
Arabic language	2	English language	2
English language	2	Turkish language	2
Turkish language	2	Microfilm	2
Arabic calligraphy	2	Archives preservation	2
Modern Arab history	2	Arab History (Ottoman period)	2
Current archives	2	Arab civilization	2
	<hr/> 20		<hr/> 20
Practical work (total number of hours is 24)		Practical work (total number of hours is 23)	

The Institute have morning classes for full-time students, and evening classes for part-time students including government officials, workers and others. During the period 1977-1981, there were 699 full-time and 483 part-time registered students divided among academic years as in figure (8.6) (31)

Figure 8.6 : Number of Registered Students in the Arab Archivists Institute : 1977-1981

Academic Year	Number of Registered Students	
	Full-time	Part-time
1977/1978	115	59
1978/1979	253	125
1979/1980	205	121
1980/1981	56	108
1981/1982	70	70
Total	699	483
Grand total	1182	

In the academic year 1981/1982, there were nineteen members of staff teaching in the Institute of whom only two are full-time. This means that a "minimum of four full-time" as recommended in a NATIS document 'Planning Information Manpower', (1, p.26) is not met. Figure (8.7) shows the academic staff of the Institute distributed in accordance with their qualifications.

Figure 8. 7 : Academic Staff of the Arab
Archivists Institute 1981/1982 (32)

No.of staff	Qualifications
1	M.Sc. Documentation (the Dean)
4	M.A. Librarianship
4	Ph.D. History
3	Ph.D. Arabic language
1	M.A. English language
2	B.A. English language
1	Ph.D. Turkish language
1	B.A. Turkish language
1	B.A. Law
1	Trained in Microfilming
Total: 19 (2 full-time, 17 part-time)	

Looking at the teaching staff from the point of their qualifications, we find that only five (26%) of the total are specialized teachers.

The Dean of the Institute, Mr.M.M.Malik, in an interview with the candidate reported that the Institute has been facing a number of obstacles which stand in the way of achieving the desired results.

The obstacles, as reported by the Dean, lie in:

1. Lack of specialized teaching staff.
2. Absence of practical training.
3. Unsuitable building (now a rented house)
4. Lack of a library
5. Lack of a laboratory for practical works
6. Lack of teaching materials in Arabic language and equipment for practical work and demonstration
7. Lack of visiting lecturers.

8. The type of students is not encouraging on account of having negative attitude towards the course because of its being a diploma, not a BA or a B.Sc. course.
9. Lack of understanding on part of the Ministry of Culture and Information (financially and administratively responsible for the Institute) of the role of the Institute.

Considering the present situation of the Institute, one may come to the conclusion that the Institute at present is too far from being able to achieve its objectives referred to earlier in this section.

With respect to the future development of the Institute, the Regional Seminar for those Responsible for Archival Training Programmes in Arab States (33) recommended the development of the Institute programme to a full academic programme of four years equivalent to a University degree as soon as feasible (p.1).

8.3.3 Continuing Education

...education does not finish with the end of secondary school or its equivalent, or with the acquiring of a university degree. All sciences and technologies are changing so rapidly that knowledge has to be updated, new fields have to be mastered and among those with a certain kind and level of experience, it is profitable to exchange views on practice and problems (1, p.22).

For knowledge to be updated, new fields to be mastered, and views on practice and problems to be exchanged, continuing education is the key. Continuing education may take a number of forms. It may be formal full- or part-time studies by course or by research for the purpose of getting a higher degree, short training courses, workshops, or meetings. In Iraq the principal form of continuing education followed and most desirable is the formal study. This form is most desirable by potential candidates because it leads to a higher degree which in itself may lead

to promotion or a higher status in one's position. Continuing education for the Iraqi professional manpower can be pursued either locally in the Department of Librarianship in AL-Mustansiriya University, and the Arab Archivists Institute or abroad - mainly in the British or American institutions. Opportunities for continuing education or let us call it further studies are offered by two channels - the parent authority of the information infrastructure and the Ministry of Higher Education. Here the potential candidate is awarded a study leave by his parent organisation or a scholarship by the Ministry of Higher Education. Of course, there are some people who wish to go abroad for further education on their expense. Local facilities for educating high level staff is not available in Iraq. Therefore it has been the trend since 1957 to send students abroad for higher professional qualification. During 1958-1964, twenty-two students were sent to America for this purpose (34, p.226). This number is too small in comparison with the need of the country for high level staff. However, in recent years the number of students studying abroad has increased remarkably. In 1978, the Ministry of Higher Education awarded scholarships to fifty library and information personnel, including the candidate, to study abroad for higher qualifications. The general trend is to send such students to Britain or the United States where programmes for advanced professional education and training are available and universally acceptable. In addition to the Ministry of Higher Education, universities and other government organisations award study leave to a number of their staff to study abroad. With respect to other forms of continuing education such as short training courses, workshops and

meetings, practices are very limited. Short training courses are now organised only occasionally on account of arising needs. Meetings on the national level started to be organised only in the 1970s when the Iraqi Library Association initiated the organisation of library conferences on different aspects of library services in Iraq. However, only three such conferences have so far been organised in Baghdad (1974) (35), in Basra (1975) (36); and in Mosul (1976) (37). In 1981, three meetings on the development of school and university libraries were held in Baghdad by the National Union of Iraqi Students (38), the Iraqi Teachers Union (39) and the Ministry of Education (40). On the Arab region level, Unesco has organised and sponsored a number of meetings on the practice and problems of library and information services in the Arab countries (21, 33, 41, 42, 43, 44). The Arab League Educational, Cultural and Scientific Organisation (ALECSO) has also contributed to the continuing education of the Arab librarians and information workers by holding meetings dealing principally with the problems of cataloguing, classification and bibliographic control of Arabic materials (45, p.35). Participation in international conferences where valuable ideas are presented and exchanged on the latest development of the profession in the participants' countries or institutions, is very limited. A potential participant cannot afford the expenses of attending such conferences and in many cases the parent organisation does not contribute. As a result the Iraqi professionals are denied valuable opportunities for knowledge refreshment which is ultimately valuable for the profession advancement in the country. Generally, continuing education in library and information in Iraq is limited and does not correspond to the needs of the profession.

8.4 Summary and Conclusion

Manpower is a decisive factor in planning, implementing and developing library and information services in any country. Any programme for the establishment and development of library and information services cannot be complete without a corresponding programme for the provision of adequate number of well qualified manpower. The necessity of establishing programmes for the provision of library and information manpower has been widely recognised and strongly emphasized. UNISIST and NATIS, the two component parts of Unesco's General Information Programme recommended the establishment of such programmes in universities or equivalent institutions in every country. However, the idea of establishing library and information education programmes goes back to the 1880s. In 1893, a library school was established in Columbia College in the United States. Hence followed the establishment of other schools in other countries. In Britain a school for librarianship was established in 1919 at University College, London. In Iraq library training started in 1954 when Unesco began sending some of its library experts to Iraq to advise the Iraqi government on library matters and organise training courses for Iraqi librarians. Among the major problems encountered in conducting these training courses were, the language barrier (lectures were given in English); lack of teaching materials in Arabic; lack of demonstration libraries; and the short duration of the courses. Unesco library experts felt the need for establishing national training programmes in Iraq, and consequently forwarded to the Iraqi authorities proposals for this purpose. Accordingly, the Central Library of Baghdad University started organising library training courses from 1960 until 1970 when

the Department of Librarianship, in AL-Mustansiriya University was founded. In 1972, a Graduate School of Library Science was established in Baghdad University, and later in 1977 it was attached to the Department of Librarianship. In 1977, the Arab Archivists' Institute was established by ARBICA in Baghdad. At present the sources for the provision of library and information manpower in Iraq include courses for diploma, BA, and postgraduate diploma in the Department of Librarianship, AL-Mustansiriya University; and a diploma course in archives in the Arab Archivists Institutes. Short training courses are only organised occasionally on account of arising needs. Continuing education, particularly for high level qualification is followed abroad - in American and British Institutions.

In general, the existing programmes for the provision of library and information personnel in Iraq are still in their infancy. The major factors that unfavourably influence the efficiency of these programmes include the lack of specialized teaching staff; the lack of teaching materials in Arabic language; the lack of equipment and laboratories; the lack of suitable accommodation; and the students' negative attitude arising from the fact that library and information services have low status in the society at large. As a result, the number of graduates of these programmes is too small in comparison with the actual need of the country for trained staff. The graduates themselves are not educated to address and solve specific problems of library and information services in Iraq. This indicates that the curriculum has not been designed in correspondence with the real situation and needs of these services. Here arises the need to review the existing

curricula and make them relevant to the local needs. There is also a need for specialized high level teaching staff necessary to educate future librarians, documentalists and archivists. The need to expand education facilities to meet the arising demand for trained staff in adequate number is also arising. Quality professional literature in Arabic language is urgently needed. Research focusing on the different aspects of library and information services in Iraq is needed as an effective method for problem-solving and the generation of professional literature. Systematic training courses are also needed to support the existing education programmes. These are among the most urgent needs required to be met if success and efficiency in library education and training are sought. In summing up, the crucial factor in the success and efficiency of library and information services in any country is the provision of qualified manpower. On this point W.L.Williamson, quoted by Dean (26) wrote:

My first priority recommendation is that the library school be given special attention and very substantial additional support to equip it to educate the highly qualified librarians needed to administer university libraries and to lead the growth of librarianship in Indonesia. Until this source of qualified librarians is strengthened, no other help can be effective in improving the libraries of Indonesia (p.90).

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CHAPTER NINE

LIBRARY AND INFORMATION SERVICES IN IRAQ :

FORMAL ORGANISATIONS AND LEGISLATION

9.1 Introduction

By formal organisations we mean those bodies which are involved in the establishment and development of library and information services. Included are the government authorities responsible for library and information services; central library and information co-ordinating bodies; and professional associations. Legislation includes the laws, acts or decrees that provide the legal base for the establishment, organisation and funding of library and information services. Penna and associates (1) consider formal organisation and legislation the pre-requisites for the planning and development of national library and information services (pp.68-93).

In this chapter an attempt will be made to critically review government authorities responsible for library and information services, central library and information coordinating organisations; professional association and library and information legislation in Iraq.

9.2 Government Authorities Responsible for Library and Information Services

In Iraq there is no central authority directly responsible for the national library and information services. However, there are four ministries having major interests in this respect. The Ministry of Culture and Information is responsible for the National Library and for the National Centre of Archives; the Ministry of Higher Education for

libraries of institutions of higher education; the Ministry of Education for school libraries; and the Ministry of Local Government for public libraries. The other ministries, organisations and professional associations control their own library and information services, e.g. the Council for Scientific Research Controls the Scientific Documentation Centre. The Ministry of Education and the Ministry of Local Government control the libraries belonging to them through their respective directorates of libraries. These directorates are generally handicapped to shoulder the responsibility of the libraries due to the inadequacy of human and technical resources available. As was noted in Chapter Six (section 6.2.4 - School Libraries) the Directorate of School Libraries is directed by three members of staff among whom only one has a basic library qualification. The Directorate of Libraries in the Ministry of Local Government is no better luck than its counterpart in the Ministry of Education. Thus, it seems that the responsibility of the greater number of the libraries in Iraq is in the hands of unqualified people. This indicates that the development of these libraries ranks very low in the list of the functions of the ministries concerned.

With respect to the National Library and the National Centre of Archives, they are considered as departments belonging to the General-Directorate of Cultural Affairs in the Ministry of Culture and Information. The same applies to the Scientific Documentation Centre in the Council for Scientific Research. Although the Ministry of Higher Education is responsible for libraries of institutions of higher education, the direct responsibility of such libraries lies in the hand of

their respective institutions. This means that there is no central body in the Ministry of Higher Education responsible for university, university colleges, and technical institutes libraries. These institutions work in isolation from each other in this matter. Unfortunately, this practice has resulted in fragmented rather than coordinated library services belonging to one ministry. The scene set in this section shows a division in the responsibility for establishing and developing library and information services. Duplication in efforts is quite clear. In addition, those responsible for the establishment and development of library and information services are, on the most part, not qualified and unable to shoulder such responsibility. This division of responsibility and the absence of a central coordinating body and effective library association, as we shall see in the next two sections, have contributed to an ultimate result of fragmented and inadequate library and information services in Iraq.

9.3 Central Library and Information Coordinating Bodies

Libraries, documentation and archives centres have one common function, the collection, storage and retrieval of information. In their specific functions, they differ from each other. Therefore, their planning and development have to be the responsibility of different parties concerned. However, the need for a central co-ordinating body is necessary for the planning and development of library and information services as a whole. On this point Boadi(2) wrote that:

to create a truly national library and information service, rather than a collection of uncoordinated services a national coordinating body should be created by legislation to plan the development of the services as a whole (p.301).

The Regional Meetings of Experts on the National Planning of Documentation and Library Services in Arab States (3; p.186), in Africa (4; p.251), in Asia (5; p.118), and in Latin America (6, p.285) recognised the important role of the central coordinating body in the planning for the development of library and information services, and included in their recommendations the establishment in each country of such a coordinating body at an appropriate governmental level and legislation. Recognising the necessity of a central coordinating body in the planning and implementing national information programmes, Unesco's UNISIST and Natis included in their respective recommendations the establishment in each country of such a body. UNISIST Recommendation 15 (National scientific information agencies) states that:

A governmental or government-chartered agency should exist at the national level to guide, stimulate, and conduct the development of information resources and services in the perspective of national, regional and international cooperation (7, p.60).

NATIS Objective 7 (Planning the organisational structure of NATIS) recommends that:

a central coordinating body (or bodies) be set up to advise the government on the formulation and implementation of national information programmes and in matters related to international cooperation in these fields (8p.17).

In Iraq there is no central co-ordinating body responsible for the overall planning and development of library and information services. What exists is only some committees formed by ministries or other government organisations to see to the organisation and maintenance of library and information services belonging to them. The existing bodies are described below.

9.3.1 The Central Committee on School Libraries

The Central Committee on School Libraries was established in 1972 within the Ministry of Education. The Committee consists of eight members representing: a) the Directorate General of Curricula and Teaching Media, b) the Directorate of Educational Relations, c) the Directorate of Curricula and textbooks, d) the Directorate of Documentation and Studies, e) the Educational Documentation Library, f) the Directorate of School Libraries, g) Baghdad University teaching staff, and h) library inspectorate.

The Committee is responsible for the following functions:

1. Setting the guidelines for book selection and purchasing
2. Setting the rules for establishing committees on school libraries in the governorates.
3. Proposing means for school library development .
4. Providing school library committees in the governorates with book lists from which books can be selected.

In addition to this central committee, there is a school library committee in each Directorate-General of Education in the governorates of Iraq.

The committees in the governorates came into existence in 1978. A typical committee consists of five members representing the directorate general of education in the governorate, the local government, and the school teaching staff. Such a committee is responsible for book selection and purchasing; and the following up of the execution by school libraries of the regulations issued by the Central Committee in the Ministry of Education (9, p.4, 6, 7).

Considering the functions of the central and local committees, we see that they are mostly confined to book selection and purchasing -

a function that has to be carried out by the school libraries themselves. With respect to school library development there is nothing important. These committees are generally ineffective and contribute very little in pushing the school library service ahead. This may be attributed to the fact that the greater majority of the committees' members know little or nothing about the planning and development of school libraries. In addition, the work in these committees is a secondary one and ranks very low among the other responsibilities of the committee members. To sum up, the Central Committee and those in the governorates are no more than book selection and purchasing committees. If such committees are to be really concerned with the development of school libraries, their functions should be revised and/or re-formulated, and their membership should in due course include people equipped with the knowledge and experience required in this field. This should also be backed by an appropriate legislation.

9.3.2 The Higher Committee on Public Libraries

The Higher Committee on Public Libraries was established in the Ministry of Culture and Information in accordance with Article Four of the Public Library Act, 1974 (10). This Committee is formed from eight members representing: a) the Ministry of Culture and Information, b) the Ministry of Local Government, c) the Ministry of Education, d) the Ministry of Higher Education, e) Baghdad University, f) AL-Mustansiriya University, and g) the National Library. The overall responsibility of this Committee is to plan for the development and expansion of the public library service by all possible means. In addition to this Committee, there is a local committee on public libraries

in each governorate. The local committee consists of the governor or his deputy, the director of education, and three members representing the social, cultural and administrative activities in the governorate.

A local committee is in charge of the following:

1. To prepare annual plans for the public library service in the governorate.
2. To allocate the funds for public libraries.
3. To select and purchase books.
4. To provide libraries with furniture.
5. To help school and other libraries in the governorate.
6. To exchange books with other libraries inside and outside the country.
7. To submit monthly reports to the Ministry of Culture and Information and the Ministry of Local Government on the activities of the libraries.
8. To carry out the decisions of the Higher Committee (10).

The Higher Committee in best cases could not function effectively and consequently its overall responsibility remained as a paper proposal. This situation might be the result of the lack of motivation on part of the committee members due to the little attention paid to the Committee's resolutions by the executive authorities. Besides, the work in this Committee is secondary in comparison with the original responsibilities of the committee members. Thus, stagnation has overshadowed this Committee and it even has become unable to communicate its voice and/or resolutions to the local committees. This state of the Higher Committee has also been reflected in the local committees. It has been noted that if an individual local committee happens to be active, its activity will soon be restricted and/or broken by a continuous neglect on part of

the parent authority (11, pp.95-96). That the Higher Committee is no longer in effect is evidenced in the formation and meeting of a committee consisting of nearly the same members of the Higher Committee. This committee met on the thirtieth of September 1981 to study the situation of public libraries and put recommendations for their development (12, p.1) - a work similar to that of the Higher Committee.

9.3.3 The Board of the Iraqi Scientific Documentation Centre

The Board was established in 1981 within the Council for Scientific Research. It consists of nine members representing: a) the Scientific Documentation Centre (SDC), b) the Department of Librarianship in AL-Mustansiriya University, c) university chief librarians, d) library and documentation experts, and e) the scientific research centres of the Council for Scientific Research. This Board is in charge with the following terms of reference:

1. To study and endorse all the plans of the SDC and to follow up their implementation after their final formulation.
2. To study and endorse the general, the scientific, financial and administrative policies of the SDC.
3. To evaluate the final results of the projects of the SDC and to follow up their implementation.
4. To discuss and endorse the annual report of the SDC.
5. To prepare the human and financial requirements for the SDC.
6. To expand the departments and activities of the SDC.
7. To recommend the affiliation of the country to Arab and international agreements relevant to the activities of the SDC.
8. To recommend the participation in the meetings relevant to the activities of the SDC.
9. To study the proposal for the development of the SDC.
10. To take all legal measures necessary for the achievement of the SDC objectives (13, pp.397-98).

The terms of reference this Board is in charge with are mostly of administrative aspects. It seems that this Board has no concern with the planning and development of information services, except for studying of proposals. Generally speaking, the existing committees reviewed in the previous pages work in isolation from each other. As we stated earlier in section (9.2) these individual committees are established to see to the library and information services belonging to the organisation within which the committee is formed. In most of the cases these committees are not functioning effectively largely because of the gap existing between the committee and the administrative authorities. This gap is represented in the little attention paid by the administrative authorities to the resolutions of the committee.

9.4 Professional Associations

An association, as defined by The Oxford English Dictionary(14) is:

A body of persons who have combined to execute a common purpose or advance a common cause.

A professional association can be taken as a body of persons combined to promote their profession and to improve their professional status and pay. Here arises the importance of and the need for establishing professional associations. On this point Aguolu (15) wrote

One of the main characteristics of any profession is the existence of an active professional association to protect the interests of its members, to determine standards of education and performance expected of them and to ensure that its members truly live up to their expectations (p.23).

The library profession has not been an exception in this concern. The development of library profession and its growing role in the socio-economic and educational development of the nations, has necessitated that librarians get together to exchange ideas on the practice and problems of their profession. This necessity has resulted in the establishment of library associations. Boldis (16) states that:

In every country the development of the librarian's profession falls into several stages. In the first stage leading workers in culture, science and education are mentioned in connection with library work. With the modern development of libraries the profession of librarians begins to take shape and librarians become conscious of a special professional status. The next stage is that of the gradual professionalization of librarianship; librarians attempt to organise themselves in professional organisations of their own (p.23).

The need for library associations was realised more than a century ago and consequently such associations started to be established one after the other. The American Library Association (ALA), the oldest association, was established in 1876 at a conference in Philadelphia initiated by Melvil Dewey. In 1877 the British Library Association (LA) was established in London at the First International Conference of Librarians (17, p.295, 305). The important role of library associations in the advancement of library services was soon realised by other countries and as a result many associations were established. For example, the Danish Library Association was founded in 1905, the Association of French Librarians in 1906, the Norwegian Library Association in 1913, the Association of Austrian Librarians in 1919, the Library Association of Ireland (Republic) in 1928, the Italian Library Association in 1930, the Indian Library Association in 1933, the Library Association

of Australia in 1937, the Egyptian Library and Archives Association in 1946, the Jamaica Library Association in 1950, the Brazilian Federation of Library Associations in 1959. In many countries such as the United Kingdom, United States, Brazil, West Germany, for instance, there are many library associations with different fields of specialization (17). Cooperation among library associations in different countries has resulted in the foundation of regional and international associations (see Chapter Three, Section 3.3.2.3 - International Professional Associations). According to Fang and Songe (17, p.448), in 1980, there were 509 national and international library, documentation and archives associations all over the world with 375,840 members, as illustrated below:

Total number of associations	509
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- International associations	59
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- National associations	450
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Total membership in associations	375,840
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- In international associations	24,612
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- In national associations	351,228
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Total number of official journals published	301
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- By international associations	37
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- By national associations	264
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Chaplin (18) states that national library associations have two main objectives: a) the development and improvement of libraries and their services, and b) the protection of interests of their members and the advancement of the status and influence of the library profession. The major forms of activities involved in achieving these objectives, as outlined by the same author, are:

1. The continued education of members by the exchange of knowledge and experience at meetings, conferences and seminars.
2. Research on questions of library policy and techniques.
3. Publications: periodicals, handbooks, directories, newsletters, studies.
4. Creation of standards for library services, book-stocks, building and equipment.
5. Promotion cooperation and coordination among libraries.
6. Representations and advice to governments on legislation and other government action for the promotion of library services.
7. Training of new entrants to the profession by organising courses and promoting the creation of library schools.
8. Maintenance of standards of professional qualification, either by conducting examinations and awarding diplomas, or by accreditation or approval of degrees and diplomas awarded by universities and schools.
9. Defence and advancement of the professional status and of the pay and conditions of work of librarians (p.16).

The significant role of library associations is evidenced in the achievements carried out by these associations, particularly in developed countries which have a long tradition in this respect.

Professor Havard-Williams (19), in his article on the role of a professional association, gives examples of the achievements carried out by the Library Association in the United Kingdom. The achievements included the raising of qualifications for entry to the profession, the influence of the Library Association on government and public policy, and the unity of the profession seen in the achievement of one national association representing the profession as a whole. Boldis (16) states that professional organisations of librarians have been main factors in the development of libraries and library profession in Czechoslovakia (p.24).

The overall achievements carried out by national library associations in many countries of the world have been summarized by Chaplin (20) in: a) promoting library development; b) promoting the education and training of librarians; and c) the advancement of professional status of librarians.

Developing countries have realised the place of national associations in library profession and calls for the establishment of such associations have been raised. At the Seminar on Public Library Development for Africa (1953) the recommendation was made that:

Librarians working in various regions of Africa should take practical steps to form dynamic professional associations as rapidly as possible. When formed, such associations should draw up carefully planned programmes of actions aimed at stimulating library development in Africa and achieving adequate recognition of the library profession (21, p.78).

The statement in this recommendation with what we have remarked previously in this section makes one conclude that librarians all over the world look forward to more or less the same professional aspirations.

Liebaers and Anderson (22) concur:

The professional objectives of a librarian, where ever his library, whatever his language, or his nationality are similar; and so may it be said are the objectives and aims of national associations, however affluent or poor the country, however "developed" or "developing" it may be (p.293).

In Iraq, the establishment of professional associations is of recent date. The Iraqi Library Association (ILA), the only professional organisation in Iraq, was established in 1968 by a number of teachers of librarianship of the time. The objectives of ILA include: a) developing library services, b) improving the financial and professional status of

Iraqi librarians, c) organising library conferences, training courses and lectures, and d) publishing a library journal. Membership in ILA is voluntary and is open to all Iraqi nationals engaged in the library, documentation and archives profession provided they have a professional qualification. A professional qualification means that a potential member should be a graduate of a library school or a training course. In an interview with the ILA President, Mr. AL-Said, the candidate learnt that ILA has 200 members. The only source of finance is the members' subscription (about two pounds a year) and an annual grant from the Ministry of Culture and information (about £3500).

Generally, in seeking to improve the professional and financial status of librarians and in assisting the development of library services ILA is playing a minor role. This may be attributed to the small size of ILA members, inadequacy of finance, and the low status of library profession. The small size of members is a result of the current trends of voluntary membership in ILA. Although data available in ILA, as reported by its President to the candidate, shows that there are about 2000 potential members, only 200 have joined the Association. This is because joining ILA, or not, does in no way affect the librarians' career. A potential librarian is not required to be a member in ILA so that he may be recruited or promoted. In other professional organisations in Iraq such as those of teachers, lawyers, engineers, doctors, pharmacists, etc., membership has been statutorily acknowledged essential for recruitment and advancement in the profession. This is why these organisations enjoy large sizes of members and sufficient finance and eventually have been capable enough to carry out many activities and achievements for their members and profession as a whole. ILA's financial resources,

which are limited in the members' annual subscriptions and a grant from the Ministry of Culture and Information, do not suffice to rent even a house for its accommodation. Low public awards to ILA is a reflection of the lack of appreciation of the role of this association on part of the supporting agencies. This in itself reflects the low status of librarianship in Iraq which represents a new profession. This situation is not exclusive to Iraq, it is generally common in developing countries. Soosai (22) in his paper on the Library Association of Malaysia wrote:

As a voluntary organisation dependent on its members for support, the progress of the Association was at first restricted by its limited financial and manpower resources. Its admirable objectives did not find much support from the official or private sector, to whom the role of libraries in the economic and educational progress of the country appeared of secondary significance in relation to other national efforts. It is not uncommon in newly developing countries for library development to get a low priority (pp.57-58).

The low status of library profession along with the lack of appreciation of the role of ILA has denied this Association the appropriate legislation under which it can have the power to ensure the maintenance of professional standards and to speak with authority for librarians as a whole. At present ILA has no power and or voice in such matters as the accreditation of library qualifications and in the content of library courses. It suffers from financial inadequacy and small size of members. That librarianship has not yet been attained the status of a recognised profession has a negative impact on the activity of ILA. Since its establishment its activities have been limited in organising library conferences (only three conferences have been organised so far) and occasional lectures on some aspects of library

services. One aspect of the weakness of ILA is seen in its inability to issue its own professional journal for which it has been trying since its establishment. Even the proceedings of its conferences are published by the host agency. Fortunately, the difficulties facing ILA have not stopped the struggle of its members for a better effective association. The ILA President told the candidate that a recent move had been made by the Association to get itself the official status enjoyed by other professional organisations. If this is achieved, all librarians will be officially required to be members of ILA. This will remarkably increase its financial and human resources. In addition, the new status will enable ILA to have its voice in matters concerned with the advancement of the profession and the protection of the interests of its members.

9.5 Legislation

Legislation means the enactment of a law or laws that provide a suitable legal base for establishing, organising and funding library and information services. Appropriate legislation is important because it authorizes essential functions, ensures adequate funding, and guarantees continuity of the services. In the International Conference on the Development of Documentation and information Network in Eastern Africa (1973) the point was made that:

...the establishment and the development of information services and systems cannot operate effectively unless their functions are clearly defined by an appropriate legislation or decree (23, p.13).

In the NATIS Conference (1974) (8) it was stressed that:

Legislative action is one of the prerequisites for ensuring the development of a strong national infrastructure,

and thus the recommendation was made that:

Legislation action should be taken at the earliest possible stage in support of the planning and implementation of the national information system (NATIS) (p.22).

In Iraq, all types of libraries were organised and operated according to special regulations issued by ministries and other government organisations to which the libraries belonged. It so remained until 1960 when the Public Library Act was issued and which is considered the first library legislation in the history of library movement in Iraq (24, p.12). In the next years, as we shall see in this section, other legislative actions were taken to govern the establishment and organisation of library and information services in Iraq. At present there is no comprehensive library and information legislation in force in Iraq. The following are the items of legislation which are effective at present in Iraq.

9.5.1 The National Library Law, 1961

This Law provides for the establishment of a national library in Iraq to collect and preserve the Iraqi and Arab heritage and what is related to human civilization. The following are the important features of this law:

- a. That the National Library collect and preserve books, manuscripts, periodicals, illustrations, recordings, films, paintings and official documents.
- b. That the National Library facilitate the use of the above materials by the researchers.

- c. That the National Library produces bibliographies of Iraqi publications, organises meetings and book displays.
- d. That the National Library owns rare books and manuscripts to be found in official libraries with the resolution of the Cabinet of Ministers (25).

Generally, the National Library Law is inadequate for a number of reasons. Firstly, it has not defined what a national library is. Secondly, the law has not defined the means by which the National Library can achieve its objectives. Thirdly, it is a general law lacking necessary details. Finally, this Law has not covered the organisation and funding of the Library - two important aspects an adequate library legislation should cover. The organisation and funding of the Library have been left to be determined in instructions issued by the parent organisation - formerly the Ministry of Education, now the Ministry of Culture and Information. These instructions are in no way as powerful as a law and are liable to frequent changes and amendments. Being a general law lacking the necessary details has provided a chance for various and sometime inadequate interpretations of the respective articles. These inadequacies of this Law have created difficulties for the National Library in its way of functioning effectively as a national library. At present, a move has been done for the ratification of a new law for the National Library where provision will be made for some independence, reorganisation and an increase in the funds of the Library (26, p.34).

9.5.2 The Deposit Law, 1970

This Law provides for a compulsory deposit in the National Library of five copies of every work published by Iraqi nationals and

by government offices inside and outside the country. The main aspects included in the Deposit Law are:

1. Responsibility for complying with this Law rests with the publisher as regards private publications and with the director of a government office in respect with government publications. The publisher who does not comply with this Law is liable to a fine of twenty to a hundred Iraqi Dinars.
2. A publication should be deposited before it is forwarded for distribution.
3. The National Library should maintain a record of all deposited works for the purpose of copyright reservation.
4. The Law excludes the following items from deposit:
 - a. Commercial advertisements
 - b. Invoices
 - c. Postcards
 - d. Invitation cards
 - e. Patents and certificates
 - f. Election papers
 - g. Contracts
 - h. Confidential government maps, illustrations and publications.
 - i. Other items that the Ministry of Culture and Information may exclude (27).

The Deposit Law has given Iraq the basis for compiling and producing the Iraqi National Bibliography (INB). Besides, the Law provides for the bibliographical control of the national intellectual production and thus Iraq can contribute to the achievement of the objectives of Universal Bibliographic Control (UBC). However, there remains a problem related to the Deposit Law. This problem does not lie in the Law itself. It lies in the full implementation of the Law.

Unfortunately the National Library is still not depositing the audio-visual materials that the Law has included

9.5.3 The Public Libraries Act, 1974

This Act is the third one after those of 1960 and of 1961.

The Act provides for the establishment and organisation of public libraries in Iraq. The main important features of this Act are:

1. That the Ministry of Information (now the Ministry of Culture and Information) be responsible for:
 - a. The technical affairs : cataloguing, classification and circulation in public libraries.
 - b. Consulting on library building.
 - c. Organising training courses for the library personnel.
 - d. Inspection.
 - e. Organising book fairs.
2. That the Ministry of Interior (now the Ministry of Local Government) be responsible for:
 - a. Constructing and or renting library buildings.
 - b. Providing library materials and furniture.
 - c. Administrative and financial affairs of public libraries
 - d. Paying the costs of training courses.
3. That a higher committee on public libraries be formed within the Ministry of Culture and Information to plan for the development and expansion of public library services in Iraq.
4. That the public library in the capital city of the governorate be called central public library and other public libraries in the government be branches of the central library.
5. That the director of a public library should be a graduate of a library school or a training course with three years of experience in library work (28).

The Public Library Act, 1974, compared with the previous two acts, can be considered a positive step towards the promotion of the public library to enable it to carry out its mission and hold its suitable status in the society. However, this Act cannot be considered complete for a number of points. The major one is that the Act has divided the responsibility of public libraries between two parties - the Ministry of Local Government and the Ministry of Culture and Information. This division of responsibility in addition to the absence of coordination and cooperation between the two ministries in implementing the Act creates problems for the libraries and for the ministries as well. For instance, it has been noted that the local administrations of the Ministry of Local Government constructs and/or rent buildings for their libraries without consulting the Ministry of Culture and Information (11; p.97). The Act also lacks specific details required to define some important issues included in it. For example, the kind of relation between the central and branch libraries has not been defined. For this reason one can see what is called central or branch libraries are only so in designation.

9.5.4 The School Libraries Act, 1974

School libraries in Iraq were organised according to instructions issued by the Ministry of Education until 1974 when this Act was issued by the Republic Presidency of Iraq. This Act states the establishment of a library in every primary, secondary and vocational school, and in every teachers training school and institute. The important items included in this Act are:

1. That school libraries be provided with books, periodicals and other publications and that these be organised and made available for use for the educational and cultural purposes.
2. That a place be allocated to the library with the capacity for storing and utilizing library materials; where such a place is not available, it has to be built.
3. That the maintenance and improvement of the school library be the responsibility of all the teaching staff. Included is the preparation of training programmes in reading skills and self instruction as a means for the development of the pupils' knowledge and personality.
4. The school librarian should be either a teaching staff member who has the interest, experience and previous training in libraries, or a qualified librarian.
5. That sources of funding be: a) the budget of the Ministry of Education and the Local Administration, b) the allocations for the national development plan, and c) donations and gifts from pupils and their parents, teachers, authors, and popular organisations.
6. That the Ministry of Education put plans for the development of school libraries, and these plans be a part of the Ministry's plans for the development of primary and secondary education (29).

This Act has covered the establishment, organisation and funding of school libraries. Taking into consideration the situation of school libraries and the library services in Iraq in general, and without comparing this Act with its counterparts in the advanced countries, this Act can be considered a real step forward in the development of school libraries in Iraq. However, the essence of the Act remains in its full implementation.

9.6. Summary and Conclusion

In this chapter formal organisations and legislation affecting library and information services in Iraq have been reviewed. In effect there is no single body and no single comprehensive legislation in force. There is no central authority directly responsible for all types of libraries. University libraries are generally administered directly by the universities. The Ministry of Culture and Information and the Ministry of Local Government share the responsibility of public libraries. School libraries are run by the Ministry of Education and special libraries and documentation centres by the organisations they serve. There is no central coordinating body responsible for the planning of national library and information services in Iraq. What is available is individual committees formed within the ministries and other government organisations to look after the libraries belonging to the respective ministry or organisation. Co-ordination and cooperation among these committees is almost lacking. This situation has created a collection of library and information services functioning in isolation from each other. The general feature of these services is their being fragmented and inadequate. In Iraq where library and information manpower and technical resources are very limited a central body is very much needed to coordinate the provision and development of the services in the light of the resources available.

With respect to legislation there are only individual acts issued for individual types of library services. However, full implementation of these acts is still a problem facing the libraries for which these acts have been issued. In two years time after the

issue of the Public Library Act, 1974, the libraries saw nothing that indicates the intention of the authority concerned to put this Act into practice (11, p.95). In section 6.2.4 (School Libraries) reference was made to some points that indicate the non-compliance with the School Library Act, 1974. It is axiomatic that it is not the issue of the act that matters. What matters is the full and effective implementation of the act otherwise it remains as a paper proposal however efficient and comprehensive it may be.

To sum up, the absence of coordination and effective comprehensive legislation has been a major factor contributing to the present state of fragmented and inadequate library and information services. Therefore, in order to have overall coordinated national services a central coordinating body needs to be established. A comprehensive legislation covering the whole component parts of the national library and information service is also needed.

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CHAPTER TEN

FACTORS AFFECTING THE DEVELOPMENT OF LIBRARY AND INFORMATION SERVICES IN IRAQ

10.1 Introduction

In the previous four chapters (6-9) the current situation of library and information services in Iraq have been critically reviewed. The general conclusion that we can detect from this review, is that these services are deficient and fragmented. This Chapter considers the factors which contribute to this situation. This consideration is necessary because the formulation of the general guidelines for the development of library and information services will be based on these factors. These factors are:

- Lack of a national information policy.
- Lack of library and information planning.
- Lack of co-operation and co-ordination
- Lack of effective professional leadership
- Shortage of professionally qualified manpower ✓
- Lack of standardization.
- Under-utilization.
- Inadequate publishing industry.

10.2 Lack of a National Information Policy

As was seen in Chapter two (Information for Development) there has been a growing awareness of the value of information as a national and international resource essential for the socio-economic

development of nations. Library, documentation and archives infrastructures are undoubtedly indispensable sources of information.

As such a national policy should be formulated and adapted by government to ensure that all citizens of country get access to the information they need. In Iraq, such a national information policy is lacking. This can be witnessed in the lack of library and information planning for which a national information policy is the guide. Library and information infrastructures are generally set up without a clear description of the functions they are to perform, the users they are to serve, their information needs and so on. The lack of a national information policy has contributed to the creation of unco-ordinated and inadequate library and information services with a clear imbalance in their distribution in the country. For instance, public libraries (as was seen in Chapter six - section 6.2.6) are mainly concentrated in the large urban areas.

10.3 Lack of Library and Information Planning

It seems obvious that with a systematic approach represented in a well established national plan library and information services will tend to be well organised, equipped and maintained. Otherwise, these services will continue along traditional lines and will not be able to get the support of government and the financial and human resources that will provide for their development. At present there is no national or sectorial library and information planning in Iraq. This is evidenced in the absence of any reference to the provision of library and information services in the national development plans and or sectorial plans. For instance, if we look at the National Development

Plan 1976-1980 (1), we shall see that this plan includes plans for the development of manpower, agriculture, industry, etc. but there is no mention of the development of information, the resource without which the other resources cannot be efficiently developed. In his interview with the General-Director of Educational Planning in the Ministry of Education, the candidate learnt that planning for school libraries does not form any part of the educational plans. This indicates that school libraries have been overlooked in educational planning of which they should be an integral part. The absence of library and information planning in Iraq can be attributed to the lack of appreciation and/or awareness on part of planners and policy-makers of the role that library and information provision may play in national development as seen in Chapter two - Information for Development.

Penna (2) stressed this point by saying:

Frequently the absence of provision for library services in many development plans is due to a surprising lack of awareness on the part of expert advisers in other fields concerning recent concepts and developments in library services. In the absence of specialist library advice, schemes for economic and educational often proceed without provision being made for the essential library/documentation elements (p.15).

The lack of appreciation and/or awareness on the part of planners and policy-makers of the role of information provision in the socio-economic development of the country is due to the fact that many of them come from backgrounds in which library and information services have played an insignificant role. The lack of planning can also be seen in that the establishment of library and information infrastructures have developed without a parallel development in the human and physical

resources required for these establishments. Thus the result has been the availability of unco-ordinated and deficient services as illustrated in Chapters (6-9).

10.4 Lack of Co-operation and Co-ordination

The need for co-operation and co-ordination among library and information infrastructures has been widely realised. Moreover, the information explosion (as seen in Chapter three - section 3.2 - Information Production and Growth) has made it impossible for any infrastructure acting at its own to make a comprehensive coverage of literature in a given field. Besides, the increasing cost of library and information services and operations, along with the need to use most effectively the available resources, all make it necessary that library and information infrastructures co-operate with each other and their activities be co-ordinated. The overall aim is to ensure maximum acquisition and utilization of information as a resource for the benefit of the society. In Iraq, there is no co-ordination of efforts and only such co-operation existing on a personal, ad hoc and informal basis. This can be witnessed in the absence of any form of co-operation such as union catalogues and lists, inter-library lending, exchange of professional experience through seminars or workshops, and exchange of information about holdings and acquisitions. The lack of co-operation in the information field in Iraq can be attributed to: a) the lack of a strong national library to give leadership in shared acquisition and inter-lending policies; b) library and information infrastructures come under different government authorities (as seen in Chapter nine -

section 9.2 - Government Authorities Responsible for Library and Information Services) with no central co-ordinating body; c) the lack of information on available resources; d) slow postal system; and e) inadequate equipment such as photocopying machines, microfilm and microfich reader/printers. Overall co-ordination of library, documentation and archives services does not exist because there is no national co-ordinating body with the authority and ability to shoulder the responsibility of co-ordination (see Chapter nine - section 9.3 - Central Library and Information Co-ordinating Bodies). The lack of co-operation and co-ordination has resulted in the existence of a collection of unco-ordinated library and information infra-structures. These infra-structures act in isolation from each other and even compete to develop on the expense of others. Hence a lot of unnecessary duplication and wastage of efforts and resources take place.

10.5 Lack of Effective Professional Leadership

The development of any profession along the right lines depends largely on the competence of its professional manpower. It particularly centres round the leadership of that profession. A leadership, that is the corps of people with professional knowledge and skills obtained through education and training, with established experience, capable of administrative and organisational work, and ready to shoulder the responsibility of planning and carrying out new projects. Unfortunately, Iraq lacks such a professional leadership that can play a major role in promoting the development of library and information services. A leadership that can work closely with organisations concerned with education, research, cultural departments,

recreation and public services. A leadership that is able to protect the interest of the people engaged with the profession, and coordinate the efforts of individuals. However, this should not give the impression that there are no leading professional people in Iraq at all. In fact, there are and they for years have contributed very much to the development of library and information movement in the country. Unfortunately these people are scattered here and there without that strong will and commitment to bring about professional cohesion and motivation for the good of the profession. The lack of effective professional leadership in Iraq can be seen in the absence of a well-established library association (see Chapter nine - section 9.4 - Professional Associations), and a strong national library that can play a leading role among library, documentation and archives infrastructures in the national acquisition and utilization of information (see Chapter six - section 6.2.2 - The National Library). The lack of effective professional leadership has contributed to the absence of standards for defining services, organisation and administration, library resources, personnel, physical facilities and finally the provision of deficient library and information services.

10.6 Shortage of Professionally Qualified Manpower

In Chapter eight (section 8.1 - Introduction) the decisive role of professionally qualified personnel in the provision of quality library and information services was highlighted. A quotation from Proctor (3) sums up this role:

The effectiveness of any library service depends upon the calibre of its employees. The difference between a dynamic and progressive service, responsive to the needs of the users and a moribund service showing

every sign of neglect is not measured in terms of qualities of books but in the quality of staff. (p.4).

Throughout Chapter six and in Chapter eight (section 8.2 - Staffing of Library and Information Infrastructures) reference has been made to the dearth of professionally qualified personnel in Iraq. This has resulted in the running of library, documentation and archives infrastructures by semi- or non-professional people. Eventually the services offered by these infrastructures are, in most cases, confined to traditional library service, i.e. circulation and reference. The shortage of qualified personnel is an outcome of two major factors: a) the limited library and information education and training facilities in Iraq (as seen in Chapter eight - section 8.3 - Education and Training for the Provision of Library and Information Manpower); and b) lack of understanding and appreciation of librarianship as a profession. It has been expressed by Aguolu (4) that:

The respect and recognition accorded to a profession by society are largely determined by the public understanding and acceptance of the role of the profession in that society. Thus the status of librarianship is actually determined by the perception of the people.

In Iraq, the important role of library and information services (as seen in Chapter two - Information for Development) has not yet been realised and/or appreciated by both the public and officials. This is an outcome of the nature of the educational system which does not encourage the use of library by students at all levels. Hence the opportunity of understanding by the students of the role of library in education and later on in practical life is not provided.

With respect to the librarians' duties, the general image held by the society is that a librarian is someone who merely collects and arranges books on shelves rather than someone who encourages the use of books and non-book media. It is not a surprise to find among the people working in libraries some who hold the same image because they lack the training in modern librarianship. This image has largely discouraged people of right calibre to enter the profession. During his visit to the Department of Librarianship at AL-Mustansiriya University, the candidate talked to a group of students and asked them some questions about their study. It was revealed by those students that they joined the study of librarianship because they had not been accepted somewhere else. Moreover, had those students been asked by someone on or off the university campus about their field of study, they would say something else rather than librarianship. This indicates very clearly the low status of librarianship as a profession. This low status has been an effective factor contributing to the shortage of qualified library and information manpower. To sum up, we quote Sharif (5) as stating:

Professional librarianship has not yet become a reality in the (Arab) region.... Not only is there a lack of public awareness about the importance of libraries and library services to support and assist the social, educational, and economic progress of the country, but also there is a lack of appreciation and understanding by authorities. For these reasons, there are few professional librarians in the Arab states (p.179)

10.7 Lack of Standardization

The measurement of library and information service performances can be efficiently carried out by the adoption of a generally accepted

standardization. The adoption of standardization can also bring about compability and co-ordination of procedures and services. Standardization covers classification and cataloguing, subject heading, physical facilities, personnel, opening hours and collection. In Iraq, standardization in these fields is lacking. This can be seen in: a) lack of uniform subject headings, classification and cataloguing rules (see Chapter seven - section 7.2 - Organisation); b) imbalance in the size and quality of personnel among library and information infrastructures (see Chapter eight - section 8.2 - Staffing of Library and Information Infrastructures); c) imbalance in the size and quality of material collections (see Chapter seven - section 7.2 - Collection); and d) unsuitable physical facilities (referred to in Chapter six under individual types of libraries). The lack of the adoption of standardization by library and information infrastructures in Iraq has resulted in unco-ordinated and incompatible procedures and practices; inadequate bibliographic control; and eventually in inadequate acquisition and utilization of information sources.

10.8 Under-Utilization

The value and development of any service depends upon how much use is made of it and so is that of library and information services. Although they are unprofitable establishments, library, documentation and archives infrastructures can be considered as supermarkets in the sense of selling information to people. Where there is a considerable size of customers, there may be a good sale. Where there is a good sale, there is the possibility that the establishment

prosper, and be able to improve its existing services and/or offer new ones in response to the demands of its customers. Effective utilization of library and information services is a major factor in motivating the development of these services to meet the users' needs. In Iraq library and information services are generally under-utilized and thus a strong motive for their development is lacking. The problem of under-utilization has been considered in Chapter seven - section (7.4.1).

10.9 Inadequate Publishing Industry

The heart of a library and information infrastructure is its collection of materials. The main source that nourishes this heart is the existence of an adequate indigenous publishing industry. Publishing and library and information services are interrelated and interdependent. The relation between these two establishments has been looked at in Chapter one (section 1.8 - The Publishing Factor). As seen in Chapter four (section 4.7) publishing in Iraq is still limited and inadequate. This inadequacy has hampered the building of a collection of materials, particularly in the home language, that meets the users' needs. Even the available materials are mostly books of motion rather than books of information which are especially needed for the socio-economic development. The lack of adequate publishing industry and that library and information infrastructures have to turn to foreign markets to acquire the materials they need, have created many difficulties for these infrastructures in the acquisition of materials (see Chapter seven - section 7.2.2 - Acquisition of Materials).

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CHAPTER ELEVEN

GUIDELINES FOR THE DEVELOPMENT OF LIBRARY AND INFORMATION SERVICES IN IRAQ

11.1 Establishment of a National Information Policy

The provision and development of an articulated national library and information service cannot be a real success without a national policy to guide in this matter. A policy as defined by Atherton (1) is

...a statement or general principle of intent that helps translate programme objectives into accomplishment by providing administrative guideline for decision-making and implementation (p.40).

Development is regarded as the function of the availability, organisation and utilization of resources. As we have seen in Chapter two (Information for Development), information has become widely accepted as a resource having an essential role in the development and prosperity of nations. This implies the collection, organisation and exploitation of information needed to meet the national goals and aspirations. To achieve this, it is necessary that a national information policy be established and adopted by the government. Just as we have policies on economics, education, science and technology, planning, etc., we should also have an information policy. An expert meeting on scientific and technological information in the Arab States (2) stressed this point by stating that:

...governments which had paid so much attention to the development of national policy in other resource areas, require policies equally for the utilization of information resources (p.7).

The need for, and the importance of, a national information policy has been realised and stressed on many occasions by individuals and organisations. The first objective of NATIS states:

Information is an essential part of a nation's resources and access to it is one of the basic human rights. The formulation and implementation of a national information policy is the only way to ensure that all who engage in administrative, educational, scientific and cultural activities have access to the information they need. Priority in the national planning must, therefore, be reflected in specialised information sub-systems.

Information is not only a national resource vital for scientific and economic progress, but also the medium of social communication. The personal, vocational and social development of the individual depends on the amount, quality and accessibility of information to such user. The ultimate aim of an information policy must, therefore, be an informed society (3, p.25).

For Dougherty (4) a sense of order can be created with a national information policy and issues, which are now "shrouded in ambiguity" can be clarified (p.8). It is axiomatic that a sound policy can create order and is most important for the continuity of work and services. Since officials come and go there is the possibility that their successors may cause a policy shift. They may also introduce new ideas or guidelines which may mean subjecting wholly or partially what has been planned, approved and began by the predecessors to a new critical examination.

But

Where there is a stable policy that have been determined and legally enforced, such shifts may not occur (5, p.254).

In their article on developing an information^{policy}, Orna and Hall (6) draw attention to the following points:

1. An information policy makes it clear what the information function is, and defines the role of the information service and its personnel, and what services can be expected from it. It also defines where such a service fits in and interacts with other information-handling units.
2. The policy provides an authoritative source of information for the management of an organisation of which the information service forms a part.
3. It provides a basis for monitoring progress and reviewing policy to meet changing situation.
4. It helps to ensure that information needs and information exploitation are taken into account in all policy decisions and forward planning.
5. It defines the role and standing of the information infrastructure manager and provides him with a basis for initiatives which can be taken without the consent of top management (pp.21-22).

For a developing country such as Iraq where library and information services are generally deficient, an information policy seems to be much more important: a national information policy for Iraq should be formulated and backed by appropriate legislation. Where then is the place of this policy among the policies of other sectors - education, economic, science and technology, etc? Information as a resource has an indispensable role in the development of these sectors. Allocation of resources (human, material, financial) to these sectors has to be guided by a national policy that will lead to the optimum allocation of the available resources. A national information policy should, therefore, be

an integral component of the national development policy, and this is already reflected in the current tendency to integrate library and information development planning with that of overall national development.

What then are the goals of a national information policy?

Atherton (1) suggests the following:

1. To ensure the optimum utilization of accumulated knowledge in science, technology, economic and social sciences in order to achieve national objectives for the betterment of society.
2. To ensure the availability of adequate information for decisions for management and for policy both in government and private enterprises.
3. To focus attention of the governments and private organisations on the problems of information availability and use.
4. To provide services relevant to present needs together with a capability for developing services to meet the future needs of generators, processors, disseminators, and users of information.
5. To promote national and international cooperation on the exchange of information and expertise (p.21).

In the OECD report, Information for a Changing Society, the following goals have been outlined:

1. To ensure the effective utilization of accumulated knowledge in science and technology, economic and social services in order to achieve national objectives for the betterment of society.
2. To promote the development of science and technology.

3. To ensure the availability of adequate information for decisions for management and for policy both in government and in private enterprises.
4. To focus the attention of governments and private organisations on the problems of information availability and use (p.30).

The NATIS Conference sums up the overall goal of a national information policy in the statement below:

A national information policy, reflecting the needs of all sectors of the community, and of the national community as a whole, should be formulated to guide the establishment of a national information plan ... (3, p.25).

The specific details of a national information policy differ from one country to another simply because each country has its own national goals.

In Iraq, the goals of a national information policy can be deduced by studying the national development plans, e.g. the National Development Plan 1976 - 1980. This plan includes the following major goals:

1. To maintain and develop the industrial sector.
2. To maintain and develop the agricultural sector.
3. To develop human resources.
4. To develop the planning sectors.
5. To develop the administration sector.
6. To develop the national communication system.
7. To promote the application of science and technology to development.
8. To improve the cultural, social, educational and economic standard of the people.

All these have information implications. The information implications of these can be seen in Chapter three (Information for Development).

Having identified the information implications of the goals of the national development plan, the establishment of the goals of a national information policy can be formulated accordingly. In general, the goals will centre round the following:

1. To draw on all appropriate resources produced inside or outside the country.
2. To organise these resources in adequate infrastructures - libraries, documentation and archives centres - using possible information technology.
3. To establish a coordinated nationwide library and information service incorporating all available service units and having cooperative links with regional and international information systems/services and programmes.
4. To ensure an adequate number of professionally trained personnel.

The establishment and implementation of a national information policy will entirely depend on the recognition by policy-makers of information as a resource necessary for national development.

11.2 Planning for the Development of Library and Information Services

11.2.1 What is and Why Planning?

For developing countries like Iraq, it is only by planning that they can find practical solutions to their problems in library and information field. Planning in every sector of human activities has

long been pursued as an effective means for systematizing these activities, reasonable allocation of available resources, monitoring progress and identifying arising problems, and eventually achieving the intended objectives efficiently. Stuart and Eastlick (8) define planning as

...the process of getting an organisation from where it is to where it wants to be in a given period of time by setting it on predetermined course of action. It is deciding what to do, how to do it, when to do it, and who is to do it. Thus planning consists of making decisions now regarding possible courses of action in light of established missions, goals, objectives, and other available information (p.27).

Penna (8) describes planning as a continuing activity that considers alternatives, forecasts their impact in due regard to available resources, proposes realistic ways of applying the solution chosen, checks and evaluates the results (p.49). From the above definitions one can detect the points that: a) planning is a continuous process of making a set of decisions to be approved and implemented; b) as a process of decision-making, it deals with a number of interdependent and sequential decisions that are systematically related to each other; c) planning provides a guide concerning possible course of action; d) planning depends on predetermined policy; and f) as such, planning requires commitment and resources, including information.

Planning of library and information services, as defined by the regional planning meetings for Arab States, Africa, Asia and Latin America (9), and the NATIS Conference (10, p.8), was regarded as one aspect of the educational, scientific and cultural planning within the framework of the overall social and economic planning of a country or a

region. This development will not be properly undertaken without being planned for and implemented by the government. In emphasizing the role of planning for the development of library and information services, Penna (8) has made the statement that:

Without planning, most library systems will remain poorly organised and equipped; without a clear definition of their cultural, educational, social and economic roles they will continue to be unenterprising and unable to win the political support and obtain the resources that are essential to them if they are to develop... (p.20).

Madkour (11) concurs:

There is no substitute for careful planning, indigenous initiatives and weighted implementation efforts (p.97).

The significant role of planning has been illustrated by Neelamegha (12) in the following points:

1. It helps to systematically move towards the achievement of the goal of library and information services.
2. It helps to identify and differentiate the essential priority action.
3. It helps concerted and cohesive action by a group of people or a corporation towards achieving ultimate goal of library and information services.
4. It helps reckoning, error-identifying and remodifying due to unforeseen circumstances at any stage in the course of action.
5. It helps in clear demarcation and allocation of activities among a group of people and effectively controlling the course of action of different people towards achieving the goals of library and information services.

6. It helps to draft a financially elastic budget : a good plan is capable of readjusting itself to a slicing or enhancing of financial resources.
7. It provides an integral and yet an analytical projection of a future course of action (pp.533-34).

Realising the significant role of planning in the development of library and information services, Unesco organised regional planning meetings for Arab States, Africa, Asia and Latin America (9). These meetings were summed up by the NATIS Conference (3). The recognition of planning as an effective approach for the development of library and information services can be witnessed in the planning activities being pursued by many developed and developing countries. Among these are: the United Kingdom, the United States, the USSR, Canada, Denmark, Belgium, Brazil, Colombia, Jamaica, India, Ceylon, Ghana, and Malaysia (8, pp.91-156). Iraq should also follow suit and apply the planning approach in developing its library and information services.

11.2.2 Integrated Library and Information Planning

By integrated planning is meant : a) overall coordinated planning of all the units of the national information infrastructure (libraries, documentation, archives); and b) the incorporation of this planning into national development plans. In Iraq, one can find, within the national information infrastructure, various units of establishments providing similar services though under different designations. This occurs because the responsibility for these units is divided among different authorities (see 9.2). The same kind of operation and service

organised by several bodies has created duplication and consequently wastage of resources and inadequate fragmented services. Professor Arntz (13) states that:

On the national level alone, for the national overall planning the usefulness of the three branches (libraries, documentation, archives) will be far greater if they are planned on integrated lines than if they are left isolated. Integrated planning will also help planners themselves to indicate clearly what personnel needs, facilities, technology, etc., are to be taken into consideration at the various levels, both the public and non-public sectors, for maximum efficiency in the information sphere (p.10).

Since library, documentation and archives infrastructures are all engaged in one common function - information storage and retrieval - the integration of their planning is practically feasible.

In the developed countries, where library and information services have been established for a long time, any further development of these services is planned on a national basis and not in the fragmented ad hoc way which has been the feature of the past. For example, in the United Kingdom, the British Library has been established to coordinate the activities of several formerly independent bodies and to assist in the national development of library and information services (14, p.II, 1). In the United States, the National Commission on Library and Information Science was established in 1969 to develop overall national plans for library and information services (15, pp.73-74).

For Iraq, overall national planning for library and information services seems much more essential. Overall coordinated planning can be reached by coordinating planning activities. Each government body which is to plan for its information units should relate to the others in the planning process. Exchange of ideas and information on what would be

planned, and direct consultation on the matters concerned should be followed. To bring the process of coordination into effective practice calls for the establishment of a central coordinating body.

It has been stated that planning of library and information services is regarded as one aspect of educational, cultural and scientific planning. Governments pay their highest attention to the preparation and implementation of national development plans. The integration of library and information development planning within that of the national development will no doubt get this planning that high attention of the government. Otherwise, the library and information "planning operation will become a purely intellectual exercise" (16, p.26). The justification for this integration is not only to get political support but also because the library and information sector is closely related to all other sectors of the community. The following statement, quoted by Professor Havard-Williams (17), stresses this thesis.

The information retrieval field involves producers such as ink and paper makers, printers, data base producers, computer firms, publishers; it involves intermediaries such as information scientists (concerned with documentary information in the widest sense), librarians, information officers (concerned with journalism or public relations), book sellers and computer bureaux. The common interest of the field of information provision is in marshalling and segregating facts, figures, opinions, other data and documents for 'end users' - that is, consumers, managers, administrators, politicians, scientists, technologists and advisors who have a latent or an expressed need for specific information...(p.41).

In Chapter two it has been noted that library and information services are a factor contributing to national development. On this basis, their objectives are parallel to national planning objectives. This has been

illustrated by Olier and Delmas (18, p.172) as shown in figure (11.1). Since libraries, documentation and archives are the main source of information and their contribution to national development is indispensable, they should be accorded a position corresponding to this contribution. This implies that planning for their development should form an integral part of the national development planning.

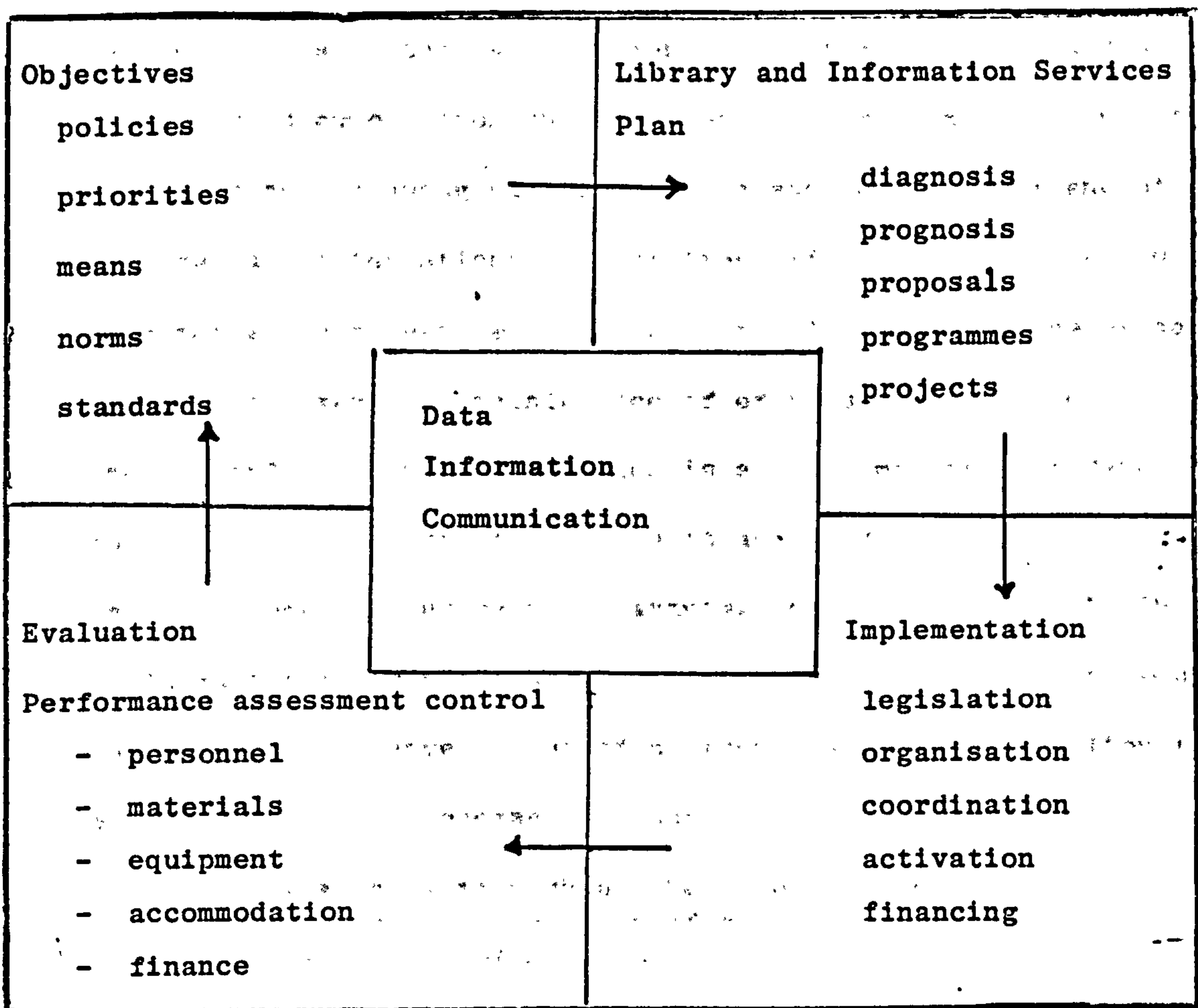
Figure 11.1 : The Relation Between the Objectives of National Planning and National Information Infrastructure

National Objective and Planning.	Objective of the National Information Infrastructure
<p>Literacy</p> <p>Primary and secondary education</p> <p>Higher education</p> <p>Technical training</p> <p>General and vocational lifelong education</p> <p>Research, innovation development of crafts agriculture and cottage industries</p> <p>National technical development programmes (dams, roads, buildings, forests, etc.)</p> <p>Culture</p>	<p>Literacy centres using modern techniques of audio-visual type</p> <p>School libraries, audio-visual centres for children.</p> <p>University libraries.</p> <p>Documentation centres, public libraries</p> <p>Public libraries, centres for dissemination of knowledge</p> <p>Documentation centres, centres for dissemination of knowledge, university libraries.</p> <p>National library, documentation centres</p> <p>Public libraries</p>

11.2.3 The Process of Library and Information Planning

In the preceding sections (11.3.1, 11.3.2) the concept of planning has been considered and also the purpose of planning, and the framework within which library and information planning should be included. This section considers the question of how to plan for the development of library and information services.

Figure 11.2: The Development Plan in the Overall Library and Information Services Administrative Process (16, p.45)



11.2.3.1 Planning Pre-conditions

If development planning is intended to be a success the following pre-conditions should be met: /

- a. Legislation. In Iraq legislation for the provision of national, public and schools libraries, and legal deposit is already in force. However, as seen in Chapter nine (section 9.5 - Legislation), there has been a number of pitfalls in this legislation. The law should be revised and reformulated in a project covering overall library and information legislation. This legislation should define in details the establishment, organisation, and funding of libraries, documentation and archives; ensure maximum cooperation and coordination among all these units and between them and other regional and international information infrastructures. A comprehensive and effective legal base could provide for the establishment, development and maintenance of efficient access to, and use of, information. / Legislation is a very important prerequisite for any planning activity because it authorizes essential functions, ensures adequate funding and guarantees continuity. The NATIS Conference (3) stressed that legislation is one of the pre-requisites for ensuring the development of a strong national information infrastructure. It was recommended that:

Legislation action should be taken at the earliest possible stage in support of the planning and implementation of NATIS

The legislation should include the basis of the system, relations with all relevant authorities, manpower, professional status, structure and financing, internal and international relations (p.29).

- b. Standards . Standards are very important tools for planning.

They serve as guidelines for the measurement of the performance of operations. The adoption of standards, has the value of ensuring uniformity and compatibility in services and the performance of operations. It is therefore essential that standards for all types of information infrastructures, based on the economic, cultural and educational needs of the people of Iraq be developed.

- c. Establishing a Planning Body. A planning body should be established with the authority and capability to shoulder the responsibility of overall planning and coordination of library and information services in Iraq (see Section 11.3).

- *d. Allocating Finance. Money is a very important factor in the preparation and implementation of development planning; without money allocated for this purpose, any planning activity will be just a paper proposal. Therefore, funds must be allocated and their sources be defined. In Iraq, the main source, if not the only, source of finance is the national budget because the State is responsible for, and controls, almost all the sectors of the country, including the library and information sector. Because of the absence of data about current expenditure on library and information services in Iraq, on which one can base his/her estimation of the required funds for the development of these services, it is not possible here to determine how much money is needed. However, the criteria for estimating future expenditure suggested by Penna (8) may be helpful in this matter. He suggests that patterns for the

expenditure on library and information services should be determined on the basis of the literate population, the percentage of annual growth rate, the number of students at all levels, and number of research workers, taking into account the standards indicated by him (p.68) as shown in figure (11.3).

Figure 11.3 : Estimated Standard Library Cost (in U.S.dollars)

Item of Cost	School Libraries (cost per pupil)	Public Libraries (cost per 1000 population)	Univ. Libraries (cost per 1000 students)	Special Libraries (cost per 100 research workers)
Initial Costs:				
Building	25	5 250	1000 000	17 250
Book and audio-visual material	8	4 500	500 000	150 000
Furniture & equipment	2	1 500	125 000	37 500
Annual costs:				
Building				
Books and audio-visual equipment	4	920	50 000	15 000
Furniture & equipment	1	300	12 500	3 750
Personnel	-	1 450	93 750	28 125

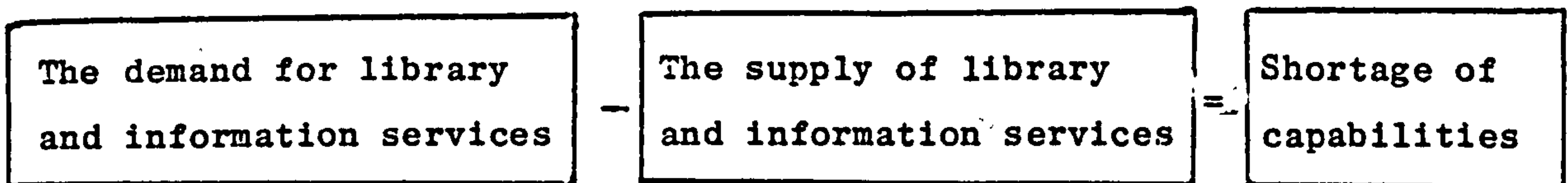
The standards shown in figure (11.3) may be used as a guideline in determining expenditure on library and information services in Iraq. It is axiomatic some modifications may be made to meet local needs.

11.2.3.2 Stages of Planning

It has been stated that planning is a continuing activity which considers the alternatives, forecasts their impact with due regard to resources available, proposes realistic ways of applying the solutions chosen, check and evaluate results. Planning involves: diagnosing, identifying objectives, drawing up a plan, implementing and evaluating.

11.2.3.2.1 Diagnosis

Diagnosis entails analysing the present state of library and information services at all levels in Iraq, categorising them and defining their functions (the categories of library and information services and their functions have been considered in Chapter six). Diagnosis also involves identifying the existing and potential needs of individuals and institutions for such services. The prime objective of diagnosis as an important step in planning is to tell what is being done, what is expected and what is to be done in future. In other words diagnosis identifies the shortage of capabilities in the existing library and information services, which should be met by planning. The shortage of capabilities can be identified by measuring the demand for these services against their supply as illustrated below:



The shortage of capabilities may appear in:

- lack of certain services
- the quality and size of personnel
- access to the services
- user education
- inadequate services

Diagnosis presupposes the availability of reliable and up-to-date information on the existing library and information services and the needs for them. Unfortunately, such information is not available in Iraq and if it is available, it is scattered here and there in various establishments. It is recommended that under the auspices of the planning body professional librarians and information workers be appointed to conduct:

- a. A comprehensive survey and analysis of the existing library and information services. This should cover size and nature of materials; physical facilities; size and quality of personnel; legislation; financial support; and level of use.
- b. A comprehensive survey and analysis of the needs of individuals and institutions for library and information services, taking into account the existing and potential needs.

These should be carried out through carefully planned questionnaires, interviews and studies (suggested by Penna (8, pp.50-57)) such as:

1. The administrative structure of library services at all levels; degree of recognition and status accorded to them.
2. The inter-relationship of libraries of all types, and the machinery for coordinating their services and for providing technical and operational leadership.
3. Library legislation.
4. Library techniques, their degree of uniformity throughout the country; the provision for adapting international codes of library practice to local needs.
5. The professional education and training of library and information workers at all levels.

Forecasts and projections are also necessary to advise planners and policy makers. Stuart and Eastlick (7) state that:

Forecasts are building blocks, or the foundation on which managers can do their own planning,... forecasting involves predicting future trends, influences and developments that may be beyond the librarian's control (p.30).

However,

The contribution of a forecast lies in how authoritative, attention-paying, and credible it is, and what service it offers to the country from the view of the policy maker's position (19, p.47).

In the developed countries forecasting studies have already been conducted and published. As examples, one can refer to Anderla's report, Information in 1985, conducted for the OECD Member States and published in 1973; and the Japanese Plan for Information Society - a National Goal Toward Year 2000, published in 1972.

11.2.3.2.2 Identifying Objectives

Objectives may be for short or long term provided they are realistic and clear. Some objectives of library and information development planning can be:

- a. To ensure that basic minimum of library and information services adequate (to meet the needs of the people are satisfied).
- b. To strengthen the available services.
- c. To improve the National Library so that it becomes an effective means for collecting, preserving and disseminating the national heritage; and acts as the major source for foreign literature.
- d. To establish effective cooperation in the information field at national and international levels.

- e. To unify library and information techniques in the country.
- f. To establish user education programmes.
- g. To introduce new types of services such as inter-library loan, SDI, abstracting and indexing.
- h. To apply modern information technology.
- i. To provide services for special groups - the blind, the handicapped, the hospital patients, etc.
- j. To improve and expand professional education and training programmes.
- k. To stimulate information awareness and use.
- l. To establish staff development programmes.

11.2.3.2.3 Drawing up the Development Plan

Since planning includes a process of making decisions, the subsequent plan begins with a set of decisions that have been made in the preceding stages and which are going to be carried out. This stage involves the production of a written text. The general layout of the plan consists of the following (8):

- a. Introduction : Background and Methodology. The introduction outlines the background of the library and information services and a brief comparison with their development in other countries, reasons for preparing the plan, the administrative and legislative background to the present stage, relation between this planning and educational, scientific and cultural planning and the national social and economic planning. Mention should be made of the research, surveys and studies conducted, and the collection of data needed for diagnosis.

- b. Objectives. A clear and precise definition of objectives demands an intellectual effort and should include an account of the consultations with educators, sociologists, economists, administrators of education and cultural programmers and directors of research programmes.
- c. Structure. Relation of each unit of the national information infrastructure to the corresponding administrative authorities (Ministry of Education, Universities, research and development agencies), showing how they form an integral part of the respective programmes, and the consequent obligations; legislation or administrative decisions involving library and information services. The plan must define the responsibility of the planning body precisely and other bodies concerned, the activities necessary to achieve the plan objectives; and the duties of the professional, auxiliary, secretarial and general service personnel, the equipment to be acquired, secretarial costs, transport and communications.
- d. Costs. A costing table should clearly show the expenditure for the plan and sources of finance to cover these costs (pp.58-62).

11.2.3.2.4 Implementation and Evaluation

Having been approved by the State authorities, the plan has to be implemented under the auspices of the planning body. The executive bodies in the ministries, institutions and organisations should be required to undertake the programmes assigned for them in the general framework of the development plan. The effectiveness and success of a plan can only be fully known during or after the implementation stage, hence arises the need for evaluation. It is thus necessary to follow up

the implementation process step by step and measure the results obtained against the defined objectives of the plan. In this way we can identify at as early a stage as possible whether these results are those fully desired or not. If not, modifications can be made either in the plan or the procedures of implementation. By continuous follow-up and evaluation the problems can be identified and can be overcome as they arise. For this purpose the planning body should appoint a specialized committee or committees to be responsible for monitoring progress and checking the results.

As was seen in Chapters (6-9) library and information services in Iraq are generally deficient and fragmented and they play a minor role in the national development process. This situation calls for urgent development if information is to be exploited for the benefit of the country. The feasibility of developing these services is largely dependent on systematic planning within the national development plans (five-year plans) which have for many years now been developed and coordinated by the Council for Planning.

11.3 Establishment of a Central Library and Information Coordinating Body

11.3.1 Preliminary Considerations

In Chapter nine (section 9.3) reference has been made to the importance of establishing a central library and information coordinating body. Coordination is needed to avoid duplication and conflict in providing library and information services. Hence there is a need to set up a central coordinating body to shoulder the responsibility of planning

and coordinating these services, in order, as expressed by Penna and associates (16),

...to create a fully articulated system
rather than a loose network of services (p.82).

The Colombo Meeting (20) saw that for a developing country the most effective way of overcoming the difficulties with respect to library services would be to establish a central body to be responsible for the organisation, development and planning of library services (pp.117-18). The establishment of such a body has also been recommended by the Cairo, the Kampala, and the Quito Meetings, and Unesco's UNISISIT and NATIS (as we have noted in section 9.3). These recommended that the coordinating body should be established at an appropriate governmental level with legislation. Many countries have already set up such bodies. In developing countries, one can refer to the Tanzania Library Service Board, founded in 1963 (16, p.82), and the Jamaica National Council on Libraries, Archives and Documentation, founded in 1974 (21, p.2) as examples. The terms of references of both these bodies embody the coordination and planning of library and information services in their respective countries.

Having noticed (in section 9.2) the variety of bodies with responsibilities for the provision of library and information services in Iraq and the general lack of coordination of these services, it is very necessary that a central coordinating body be established at a governmental level and legislation be enacted for overall coordination and development of library and information services. This body might be called the National Library and Information Board in Iraq (NATLIB - Iraq).

11.3.2 The National Library and Information Board in Iraq (NATLIB - Iraq)

11.3.2.1 Structure and Finance

A number of suggestions have been made as to the size of and the level or levels in which a central coordinating body could be organised. Unesco, for instance, suggests that the coordinating body should be composed of representatives of the appropriate government departments, State bodies, semi-official institutions, and of representative specialists from the information field (10, p.12). Olier and Delmas (18) see that the coordinating body may be organised in three levels:

- a. Interministerial committee or council of ministers. This committee is to represent ministries of education, agriculture, health and industry; and to be assisted by two specialists in library and information problems and one financial expert. It will meet once a year and is responsible for making proposals to the government.
- b. Ministerial subordinate body. A high level committee of seven or eight members (including three experts); to meet first to define main objectives, and then again at the time of the budget.
- c. Commission responsible for detailed planning and implementation. A group of specialists comprising ministerial representatives, users, and information specialist (this commission will provide detailed guidance with regard to international relations). It will meet once or twice a month (pp.194, 197).

Penna and associates (16) also suggest that the coordinating body may be organised in three levels (p.82). Another alternative has been

identified by Choi (22) who sees it appropriate for developing countries. This suggests an organisation at two levels:

- a. Small coordinating unit. A unit of a maximum of sixteen members; to be responsible for detailed planning and implementation.
- b. Large representative assembly. This is to be made up of a large number of representatives of interested organisations. It could receive and discuss reports from the coordinating body and suggest ideas which might be considered. This assembly could play an important part in public relations activities (pp.267-68).

In Iraq the central coordinating body could be organised in two levels: Sectoral Committees and the suggested National Library and Information Board in Iraq (NATLIB - Iraq).

- a. Sectoral Committees. Sectoral library and information committees (as listed below) are to be set up. The members of each committee should include representatives from the government department responsible for the sector with which each committee is concerned, professional specialists and users. Each committee is to deal with the specific practices and problems of its sector, propose further development, and practise an inspectorial role in the implementation of the programmes assigned for its sector. The committees that are proposed are:

1. The National Library Committee.
2. The Scientific Documentation Centre Committee.
3. The National Archives Committee.
4. Academic Libraries Committee.
5. Special Libraries Committee.
6. School Libraries Committee.
7. Public Libraries Committee.

Each committee would meet once a month or as necessary.

b. The NATLIB - Iraq. This Board is to be responsible for detailed development and coordination of library and information activities in Iraq. It should be closely linked with the Council for Planning, and responsible to the First Deputy Prime Minister. The Board would meet quarterly. The total members of the Board would be twenty-one as listed below:

1. The Minister of Culture and Information (President)
2. The Minister of Higher Education and Scientific Research (Vice-President)
3. The Minister of Education (Second Vice-President)
4. The General-Director of the National Library; representing the National Library Committee (Secretary).
5. The General-Director of the Scientific Documentation Centre; representing the Scientific Documentation Centre Committee.
6. The General-Director of the National Centre of Archives; representing the National Archives Committee.
7. The President of the Council for Scientific Research.
8. The President of the Iraqi Library Association.
9. The President of the Publishers' Association.
10. The President of the Authors' Association.
11. The Presidents of Academic, Special, School, and Public Libraries Committees (four members).
12. The General-Director of the National House for Distributing and Advertising.
13. An educationalist.
14. A sociologist.
15. An economist.
16. Two library and Information experts.
17. A financial specialist.

To ensure efficient functioning of the Sectoral Committees and the NATLIB-Iraq, there would be a permanent secretariat to be responsible for the execution of the NATLIB-Iraq decisions, receiving and coordinating the reports sent by sectoral committees, undertaking the correspondence, organising the NATLIB meetings, publishing and distributing the NATLIB reports and minutes of its meetings. As we have suggested that the Secretary of the NATLIB would be the General-Director of the National Library, the rational choice would be to locate the Secretariat in the National Library. Administratively and financially the Secretariat would belong to the NATLIB.

The work of the coordinating body (NATLIB) would largely include making proposals to the government, based on the analysis of the situation as it is seen by them and on the study of needs. This requires research and development activities which will make objective surveys of the existing library and information facilities within the country. The research and development activities need adequate financial resources. These are particularly necessary for developing countries such as Iraq where research and development in the library and information field is not extensive and the funds for this field are insufficient. The coordinating body also needs to have financial resources to provide for the more important elements for the library and information development plan. The financial control given to the coordinating body (NATLIB) will increase the effectiveness of its policy-making function and to support for the more important elements of the library and information development plan (22, pp.269,272).

The NATLIB also needs financial resources to provide for: a) payments of fees and expenses to the members in terms of attending the meetings of the Board; b) salaries of clerical and secretarial personnel; c) stationery, printing and publications; d) required equipment; and e) transport.

11.3.2.2 Functions of the NATLIB-Iraq

The functions of any coordinating body will no doubt differ from one country to another. This is because each country has its own needs and goals which also differ from that of other countries. However, there seems to be a generally accepted function: "to promote the establishment, development and coordination of library and information services". When defining the functions of a coordinating body, we should keep in mind that they should be as objective as possible because their performance will be as efficient as their objectivity. It is no credit to have a long list of brilliant functions where the resources to carry them out are not available.

Penna and associates (16) state that wherever located, a coordinating body may be seen to have three main functions: 1) to prepare and cost a coordinated development plan for all types of library and information services within the national development plan; 2) to harmonize the allocation of resources for library and information services development, from both internal and external sources; and 3) to establish, and to provide for the regular review of national standards for efficient library and information services (p.48). In his letter to Member States on 25 July 1973, the General-Director of

Unesco, quoted by Atherton (1, pp.23-24), suggested the following functions:

a) Planning and Promotion:

elaboration of long- and short-term plans for activities, linked to other parts of the country's development plan;
work on the provision of the information system, technical and organisational projects, systems analysis;

b) Coordination:

of activities of the documentation and data centres and library services to avoid duplication, e.g. the exchange service with partners abroad, translations, retrieval, etc;

of training and education of information professionals and workers of the country;

of research, development and design, serving the sphere of information services;

of international cooperation; contracts abroad;

c) Consultancy and Advisory Activities:

for governmental agencies concerning information services;

for governmental administration concerning legal acts important for the system of services;

in the field of methodology, standardization, classification;

on modern equipment (computing, telecommunications, reprographic equipment), modern methods of labour, design and construction of buildings for information services.

The United States Commission on Libraries and Information Science has the following functions:

1) to develop and recommend overall plans for meeting national library and information needs;

2) to advise the President and the Congress on implementation of national information policy;

- 3) to advise Federal, State, local and private agencies on library and information science;
- 4) to appraise the adequacies and deficiencies of current library and information sources and services;
- 5) to evaluate the effectiveness of current library and information programmes; and
- 6) to conduct studies, surveys and analysis of the national library and information needs (14, p.74).

In the Sudan, the terms of references of the National Council for Library Development, recommended by Parker (23) include: 1) to promote, encourage and coordinate the establishment and development of libraries in all parts of the Sudan; 2) to secure full cooperation between persons engaged in supplying library services in the Sudan; 3) to establish national standards for library services; 4) to collect and publish statistics relating to library services; 5) to promote the education, training, professional development and status of librarians; 6) to establish national policies for library development and administration; 7) to examine and approve all plans and budget estimates in respect of the establishment or development of libraries; and 8) to enter into mutual arrangements with authorities or organisations concerned with the provision of library or bibliographical services inside or outside the Sudan (pp.88-89).

The functions of the coordinating bodies mentioned above can be categorised in three groups: those suggested for all countries of the world; those for a given developed country (U.S.); and those for a given developing country (the Sudan). As for Iraq, the functions

of the NATLIB-Iraq would be:

1. To develop a national information policy.
2. To plan for the development of library and information services within the national development planning.
3. To ensure effective coordination and cooperation of all units of the national information infrastructure.
4. To promote the participation in and benefit from regional and international information systems and programmes; and to establish cooperative relation with national infrastructures of other countries.
5. To stimulate information awareness and use.
6. To promote the education, training, professional development and status of library and information personnel.
7. To establish national standards for library and information services taking into consideration the internationally recommended standards.
8. To stimulate the application of information technology.
9. To advise the government on estimates of library and information funding.
10. To conduct studies on the problems of library and information field, collect statistics and data on library and information services in Iraq, and acts as the main source of this information.
11. To promote book production and publishing.
12. To act as the national body for international relations in the library and information field.

What has been proposed in this section, it is hoped, will provide a closely linked machinery where the producers and consumers of information, and the government authorities responsible for the provision of the services could get together to exchange ideas on the problems and practices of the library and information field, and eventually reach the decisions that serve development in a national context.

11.4 Provision of Library and Information Manpower

Four major elements comprise library and information services - physical facilities to accommodate and operate the services; a collection of materials on which the services are based; financial resources to cover the costs of the services; and human resources to collect and organise the materials and to retrieve the information needed by users. Only the human element can bring library and information services to life and make them a dynamic, vital force for the community they serve. As such, adequate development of library and information services is largely dependent upon the availability of qualified personnel capable of manning the services efficiently and who can provide the professional leadership and services necessary to plan and implement library and information programmes. In Iraq, the shortage of professionally qualified personnel is one of the most pressing problems facing library and information services which are currently staffed, in the majority of cases, with insufficiently qualified personnel. To enhance the development of these services in Iraq, certain measures should be taken to ensure the availability of qualified personnel.

11.4.1 Staffing of Library and Information Infrastructures

In general, libraries, documentation and archives centres in Iraq are manned by semi- and/or non-qualified personnel. In addition, as we have noted in Chapter eight (section 8.2), there has been no clear demarcation between professional and non-professional personnel and between the positions they hold. The general practice is that any person with library qualification of any standard whether obtained through apprenticeship, short training courses or full-time academic education is designated 'librarian' and categorized as qualified. Three major problems seem to be arising here and need consideration. These are: 1) the lack of job description and position categorisation; 2) the low status of library and information personnel, which eliminates the people of the right calibre to enter the library and information profession; and 3) the shortage in the supply of a qualified personnel. To overcome these problems three requirements should be met: 1) to develop clearly defined duties and responsibilities of all the positions in libraries, documentation and archives; 2) to accord library and information personnel the status corresponding to the contribution of their profession to the educational, social, cultural and economic development of the country; and 3) to ensure the supply of adequate number of professionally qualified personnel (this will be considered in section (11.4.2)).

With respect to the status question, the work in the library and information field should be legally recognised as a profession having the same value and importance to the society as that of other longer-established professions (i.e. law, medicine, engineering, teaching, etc.). A profession that is no longer concerned with organising books

on shelves, but a profession that is actively engaged in the dissemination of knowledge. A profession that requires people of certain calibres to perform it. A profession that requires

...bright young people - socially and intellectually alert, emotionally well-balanced, devoted to the good of the community and its forward development in modern complex society - the bright young people who are needed by government, industry and commerce. People who will see through the problems analytically, who will have skills in information transfer, in bibliographical knowledge, in communication and in planning ... (24, p.58).

Recognising the library and information work as a profession and according it the status of other professions will undoubtedly have a positive effect on the recruitment of promising young people described in the statement above.

The other question to be considered is that of job description and position categorisation. The lack of clearly defined job description and position categorisation has imposed limitations on the full use of available personnel and brought about an overlap in their duties and responsibilities, and in their categories (i.e. professional or non-professional). It is, therefore, necessary that job description, based on a thorough job analysis, which states clearly the title, purpose, scope and duties and responsibilities of all the posts in library and information services in Iraq, should be developed. Such a job description would be an effective tool in: 1) identifying for the individual personnel the exact duties which he/she will perform; 2) informing the other personnel what each job in their organisation includes; c) defining the personnel's position in the organisation; and d) deciding the sort of person to do the job. A statement should also be developed to define

the category (as for example, professional or non-professional) of each given job and its skill requirements. In developing clearly defined job description and position categorisation, it will be possible to make effective use of personnel; put the right person in the right place; and finally, minimize overlap and avoid duplication of job performance. However, the recruitment of the right person in the right place depends totally on the availability of that right person. Therefore, steps should be taken to ensure adequate supply of library and information manpower at all levels, particularly at the professional level.

11.4.2 Education and Training for the Supply of Library and Information Manpower

To ensure the supply of adequate number of professionally qualified personnel for library and information services in Iraq, education and training programmes, based on a comprehensive analysis of national manpower resources, should be followed systematically.

11.4.2.1 Library and Information Manpower Planning

As can be seen in section (11.2), there seems no real substitute for a systematic planning in the preparation and implementation of any programme. In order to secure the required number of library and information personnel and to keep a reasonable balance between the supply of and the demand for such personnel, manpower planning should be pursued to guide the design, development and operation of programmes for professional education and training of library and information personnel of different levels and categories. Such planning should be pursued at the national level and be integrated with the overall national

manpower planning. Effective manpower planning introduced at the national level is a valuable management tool in controlling the cost and the supply of the required manpower necessary to improve the efficiency of library and information services in any country. The reasons which make manpower planning necessary are outlined by Broomé (25) as follows:

1. The determination of recruitment levels. Estimates of future requirements are - or should be - the base for a sensible recruitment policy, that is one which does not involve waiting until shortages have become evident and then hoping that the organisation can recruit the people it needs at once.
2. The determination of optimum training levels. Manpower forecasting is vital to training and re-training programmes. These programmes must be related to the anticipated job requirements at the end of the training period - and subsequently. For this purpose, the people responsible for training need an estimate not only of the future staff, but also of the future skill and occupational structure of the organisation. This is particularly important when the training period is a long one. It is clearly essential, to both the individual and the organisation, that the skills for which training is provided are the ones that will be needed in the future and, conversely, that the form of training takes account of the possibility of skill obsolescence.
3. The provision of a basis for management development programmes. The purpose of management development schemes is to ensure that suitably qualified managers are available to fill vacancies as they arise. Since the fitting of the right man for senior assignments is of critical importance to the success of the undertaking, the career of individual managers must often be planned with a precision not attempted at other levels. For this reason, knowledge about managerial posts, both current and future, has to be both more accurate and more detailed.
4. The costing of the labour element in new projects. A library service is labour intensive. The costing of future projects or developments can scarcely be realistic unless the labour element has also been carefully costed. If manpower requirements have been under-estimated the project will be under-costed and may well become unviable; if the manpower allowance

is over generous, the organisation may reach the (wrong) conclusion that the project is unduly expensive and should be postponed or abandoned. Either way, therefore, careful calculation of the amount and quality of labour required is essential to a sound decision on whether a project should be pursued.

5. The planning of future organisational structure.

If future manpower requirements and, therefore, volume of business, have been determined it is possible to estimate the effects on the present organisational structure. It may be that on a short term forecasting basis the expected manpower may not warrant changes in the structure, but the position may well be different in the case of medium or long term forecasts, particularly if the organisation is in a state of growth. If it can be shown that staff is going to increase considerably then a different organisational structure may well be needed. This in turn will involve, among other things, alterations in plans for career development and promotion, and the creation or extension of specialist posts/ sections and support services (pp.204-205).

As stated by Professor Havard-Williams (26), manpower planning

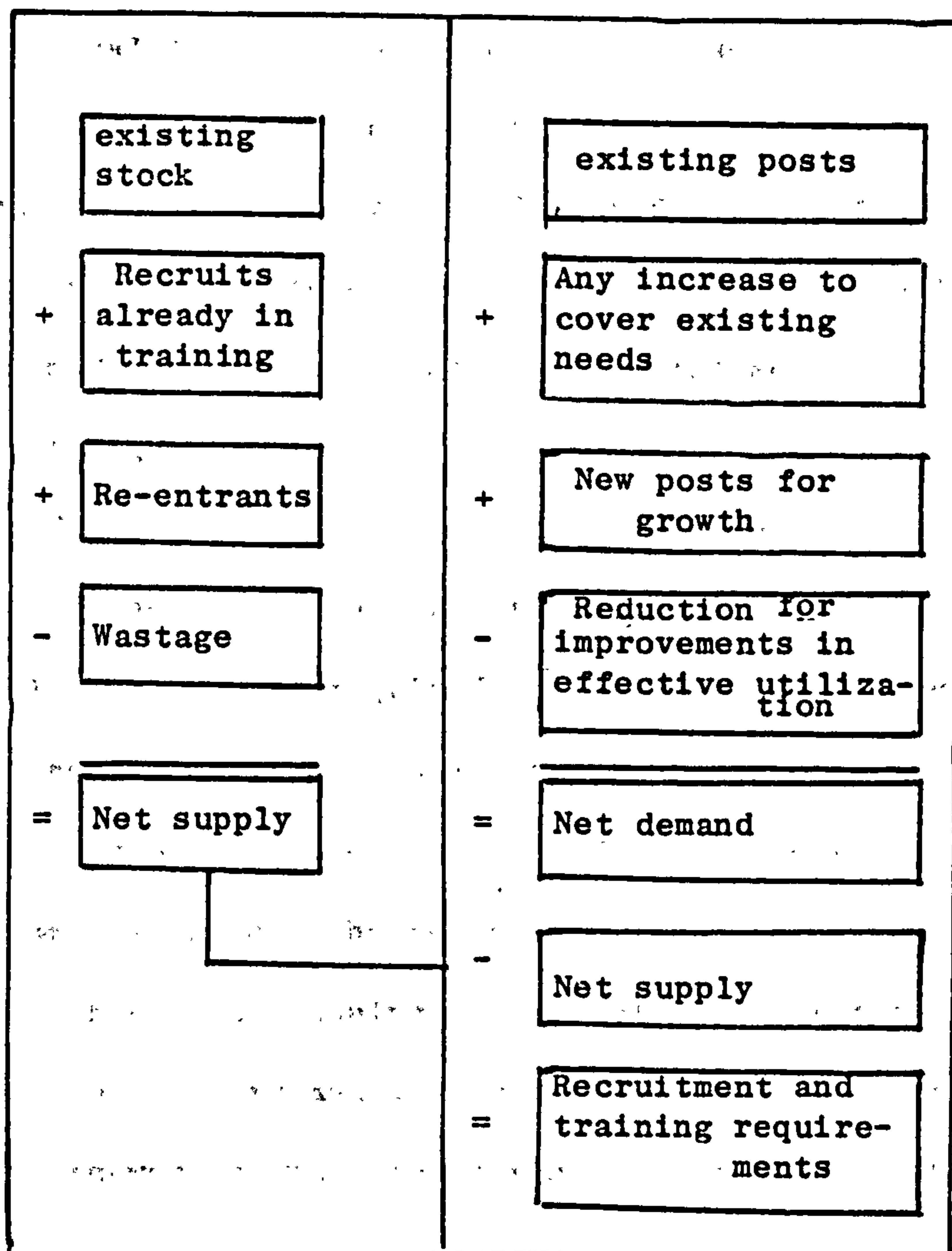
...indicates an attempt to foresee the demands both of the present and of the future and to plan the education and training needs accordingly (p.8).

He further states that manpower planning involves the estimation of expected losses, future needs, and the planning to meet these needs after taking into account the existing of manpower resources (p.9).

Seen in this way, manpower planning presupposes the estimation of the supply of and demand for manpower so as to plan to meet the required manpower for a given period. Broome (25, p.407) provides a basically simple manpower forecasting model as shown in figure (11.4).

To estimate the supply, a comprehensive analysis of the existing stock of human resources would be conducted. The main source of information needed for the analysis would be the personnel records. The problem here is that these records become rapidly out of date, and they are very time-consuming to up-date. To overcome such a problem,

Figure 11.4 A Manpower forecasting Model

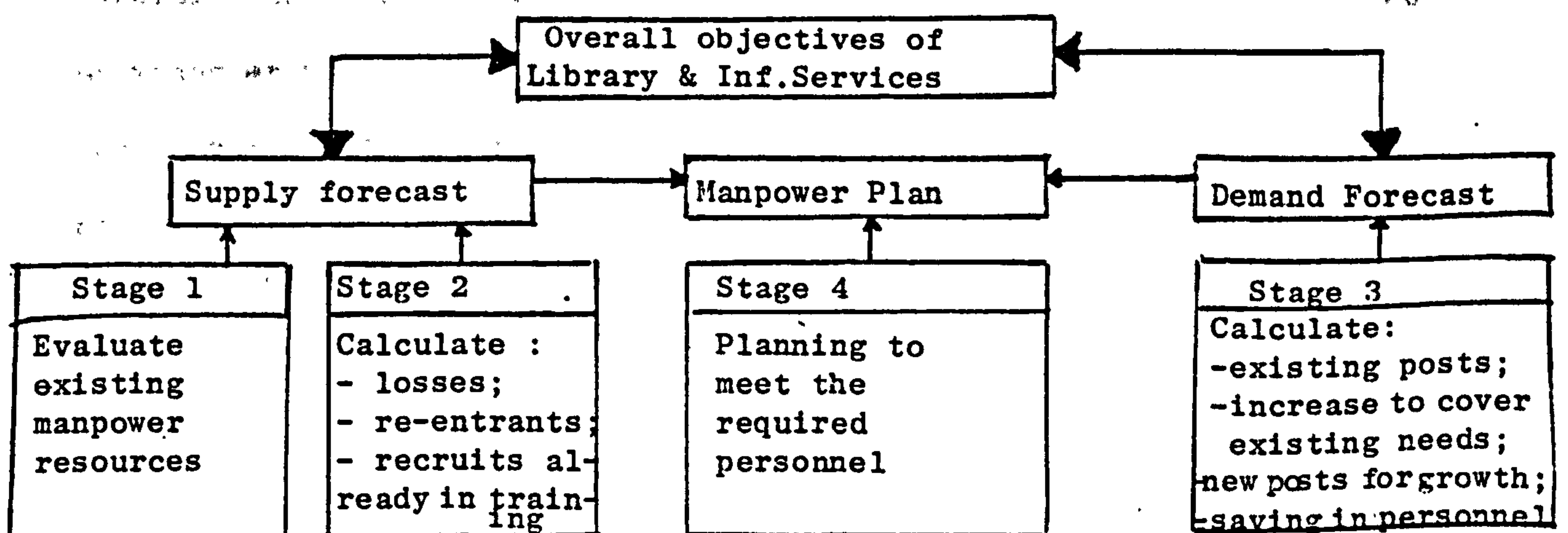


regular reports on individuals, supplemented by more detailed job appraisal could be maintained. The analysis should be based on a clear distribution of personnel into accepted categories, i.e. professional such as librarians, information officers, documentalists, archivists, etc., and non-professional such as library assistants, clerks,

technicians, etc. These categories may also be subdivided into more specializations as deemed necessary. The results obtained from this analysis will form the supply base-figure. This figure would be modified by adding to it recruits already in training and re-entrants to the profession. Expected losses of personnel through retirements, resignations, promotions or transfer would be deducted from the modified figure. The result obtained would represent the supply net-figure.

To reach the demand figure, a similar analysis would be carried out taking into account the current posts, any additional personnel which may be required to cover existing needs or as a result of creating new services. Any expected restructuring leading to the saving of personnel would then be deducted to get the demand net-figure. The difference between the demand and the supply figures would be the figure on which the planning of education and training programmes for the supply of library and information manpower would be based. The general framework of manpower planning process for library and information services can be seen in Figure (11.5) which we have derived from Moore (27, p.12).

Figure 11.5 : Manpower Planning for Library and Information Services



11.4.2.2 Education and Training Programmes

In Chapter eight, education and training programmes for the supply of library and information manpower in Iraq have been reviewed. As we have noted the only programmes available are those of the Department of Librarianship in AL-Mustansiriya University and of the Arab Archivists Institute; both in Baghdad. We have also stressed the shortage of qualified personnel in Iraq. When we measure the output of these programmes in terms of graduates against the existing demand for personnel, we find a wide gap existing between the two, i.e. the supply of and demand for personnel. This indicates that the existing facilities of education and training are too insufficient to cope with the increasing demand for personnel. Let us express this in figures. On average, the output of the Department of Librarianship is about 100 graduates (diploma and B.A.) per year. If we look at the current needs of school libraries only, we shall see that they need about 7500 school librarians, if they are intended to be real school libraries constituting an integral part of the educational programme. This means, taking into account the supply of personnel (100 a year), that it takes the school libraries seventy-five years to meet only their existing needs of staff. As we may expect, the same situation may apply to the public libraries.

The question of low supply of trained personnel requires careful consideration, and that education and training programmes based on manpower planning should be systematically provided. The following considerations can contribute to answer the question of the short supply of trained personnel.

1. Establishment of new education and training programmes.

New education and training programmes should be established in Basra and in Mosul Universities offering professional and advanced professional qualifications (i.e. B.A., B.Sc., Master). Programmes for sub-professional qualifications (two-year courses after secondary school) would be established in the Foundation of Technical Institutes. A Ph.D. programme does not seem feasible at present because the staff to develop and maintain such a programme is still lacking. In this case, candidates for such qualifications can pursue their studies abroad; in well-established schools in the United Kingdom or the United States.

2. Availability of specialised faculty members. To develop and maintain education and training programmes adequate number of specialised staff should be ensured. This may be reached by: a) hiring teaching staff from Arab countries and/or other countries; b) visiting lecturers from Arab and other countries with advanced library and information studies; c) hiring part-time staff (practitioners); and d) sending promising candidates to qualify abroad.

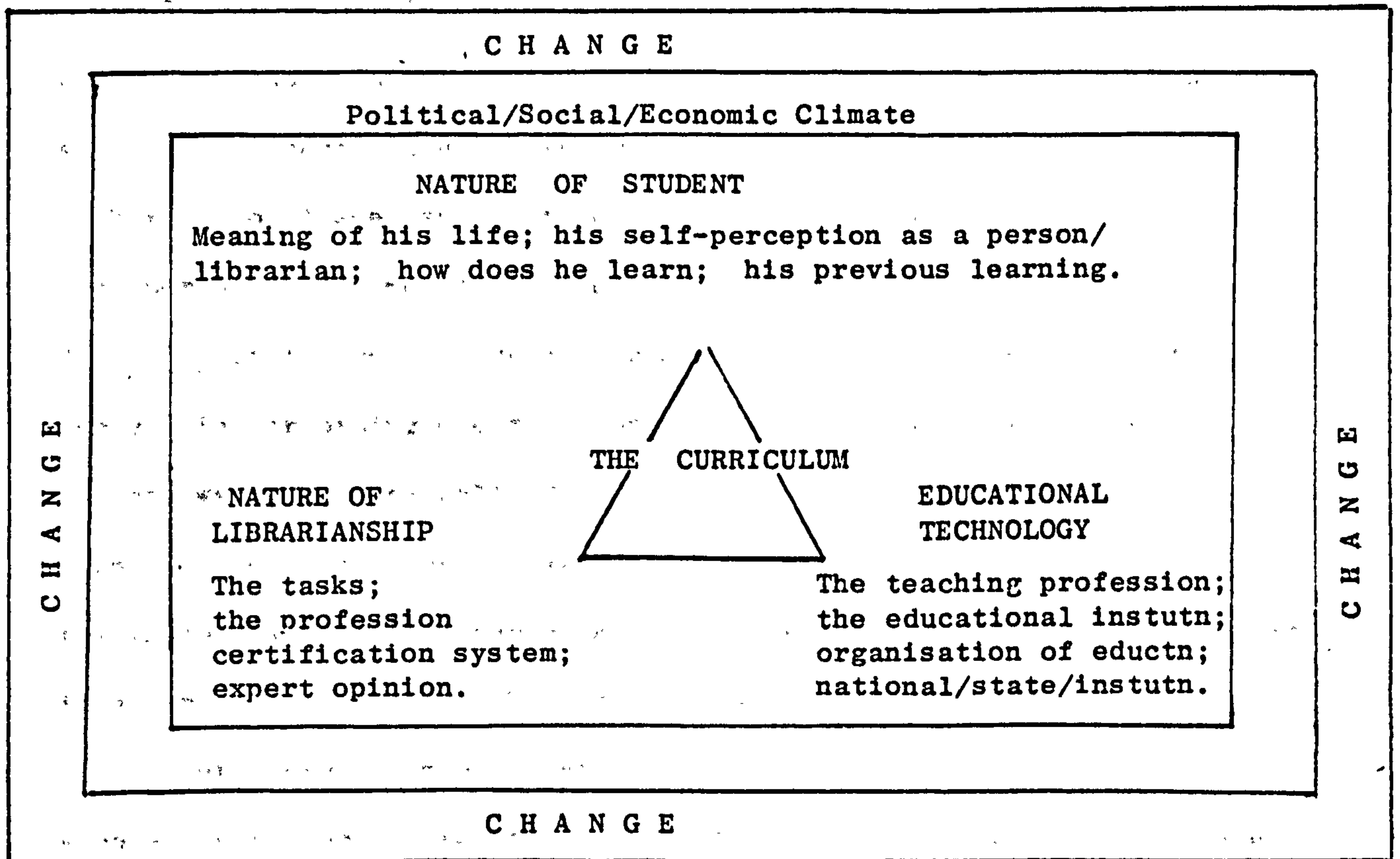
3. Curriculum design and content. The curriculum should be designed in the view of the present and future needs of library and information services in Iraq, the nature of students, and the educational technology.

On the curriculum design, Williams (28) wrote:

...the curriculum is externally, not internally, justified - its relevance comes from its environment, not from within itself. Analysis of the environment and assumptions about the environment is an essential step in curriculum design ... (p.6).

The curriculum environment, as illustrated by Williams (28, p.6) is shown in figure (11.5).

Figure 11.6: The Environment of the Curriculum for Education of Librarians.



In this way education and training programmes should be considered as an integral part of the profession, existing to serve and add to the profession. To put it in Meakin's words, the teaching staff should be:

...a dynamic part of the profession, not as sequestered aesthetes, inhabitants of the 'grove of Academe' shielded from the pressure of society (29, p.224).

The curriculum should include new concepts and technologies, especially information science and technology, and management studies. Since library and information services are in practice and should be defined by the country's cultural, educational, social, economic and scientific aspects, the curriculum should include at least a general background of these aspects to enable the potential library and information personnel to understand the community they serve.

4. Core curriculum. Library, documentation and archives are commonly engaged in performing one function - information storage and retrieval. In this way, they basically form one profession. In developing countries such as Iraq, the resources available do not permit to teach each of the three disciplines (librarianship, documentation and archives studies) in a separate school. With this in view, it is therefore recommended that a core curriculum comprising the three disciplines be developed. A core curriculum (shown in figure 11.7) has been provided by Professor Havard-Williams (26, p.19), and which can be used as a guideline for developing a core curriculum in library, documentation and Archives for education and training programmes in Iraq.

5. Professional literature. Since education and training programmes are pursued in the Arabic Language, it is, therefore, very essential that quality professional literature in Arabic should be produced. This can be done by writing and/or translating international standard professional literature, taking into account the local needs of the country.

Figure 11.7 : A Core Curriculum in Documentation, Library and Archives Studies

Courses	Information Science	Library Studies	Archives Studies
Foundations (Masonry)	Sociology of information Scientific communication Theory of communication Research methods	Library in society Library legislation History of libraries and library education User research Research methods	Economic) Legal) history Social) Genealogy, heraldry Research methods
Materials	Various formats - reports, documents data (ideas) Information services	Various formats - books, serials, new media Reference sources Bibliographical tools History of book arts	Various formats - manuscripts, maps, letters Registers, inventories, etc. Bibliographical tools
Methods	Indexing, contents analysis Documentary languages Storage and retrieval systems Data organization Information dissemination Systems analysis	Indexing, contents analysis Reader services Organization of knowledge Reference processes Systems analysis Preservation and restoration	Registry systems Palaeography Museum techniques Records management Library techniques Preservation & restoration
Management	Management and administration Personnel Systems organization and planning Legal aspects	Management and administration Personnel Systems organization and planning Type of library operation Legal aspects	Management and administration Personnel Systems organization Type of archives operation Legal aspects
Mechanization	Computer and repro- graphic technology	Computer and repro- graphic technology	Computer and repro- graphic technology

This can be better achieved through a coordinated effort of all Arab countries. The establishment of a centre for Arabisation would be very helpful in translating standard literature.

6. Research in library and information. Research is an essential tool in problem-solving and in the generation of information. Research could be encouraged by developing postgraduate studies by research. Also important is the establishment of a research centre in library and information in AL-Mustansiriya University within the Department of Librarianship or in the National Library. Research should focus on the different aspects of library and information services in Iraq.

7. The students. Students of the right calibre, who are well-suited and motivated to be the librarians, documentalists and archivists of the future should be attracted to library and information studies. To attract such promising students, a vigorous publicity campaign should be launched under the auspices of the proposed National Library and Information Board in Iraq to locate prospective individuals and attract them to the profession. This campaign should concentrate on senior classes in secondary schools and universities. However, such campaigns may not reach the desirable results unless the work in library and information services is recognised as a promising profession and accorded the same status of the other professions in the society.

8. Continuing education. Continuing education programmes should be developed for the personnel already doing library and information work whether previously trained or not. Education must be a continuing activity, with its objective being to enhance professional capabilities and improve work effectiveness and promote self-development and

advancement in the profession. It can be pursued by providing opportunities for the staff members to: 1) join full- or part-time studies in library schools at home and/or abroad; 2) join short training courses being undertaken at home and/or abroad; 3) participate in professional activities such as attending seminars, conferences, workshops, organised nationally and/or internationally; and 4) visit other library and information infrastructures inside and/or outside the country to learn of their latest developments. Upon the completion of (1 + 2) above, the individuals would be eligible for advancement in the position or financial promotion or both. A national programme for continuing education in Iraq could be developed by the proposed National Library and Information Board in collaboration with the library schools and the Iraqi Library Association.

The question of the short supply of library and information manpower in Iraq is a pressing one. Unless it is urgently considered and rational answers be found, the personnel problem will be formidable in the future. What we have proposed in this section could be some of the answers to the personnel question.

11.5 Establishment and Use of Standards

The development of library and information services in Iraq will continue to be a slow process without the formulation and use of national authorized standards to: evaluate the efficiency of library and information services; promote cooperation and coordination among them; and reach reasonable compatibility and uniformity in their operations and services. Without the adherence to internationally

adopted standards, participation in and benefit from international information systems and programmes will remain away from being a success. Standardization has become increasingly important to upgrade library and information services in all countries and to ensure greater national, regional and international cooperation and co-ordination in the organisation and utilization of information.

What do standards mean? In general,

Standards are technical specifications or other documents containing a set of conditions to be fulfilled. They may be issued by companies, associations or groups, government departments, national standards organisations, or regional or international standards bodies (1, p.159).

As regards the library and information field, a South African publication,

Standards for South African Libraries, quoted by Hirsch (30, p.159),

defines standards as follows:

Library standards may be defined as the criteria by which...library services may be measured and assessed. They are determined by professional librarians in order to attain and maintain the objectives they have set themselves. Standards may be interpreted variously as the pattern of an ideal, a model procedure, a measure for appraisal, a stimulus for future development to assist decision and action not only by librarians themselves but by laymen concerned indirectly with the institution, planning, and administration of...library services.

The question of developing and attaining standards has occupied the thinking of the library and information profession for more than a generation (30, p.159). Consequently, procedures, techniques, and equipment considered to suit the fulfilment of the functions and mission of the profession were initiated. Gradually these have been standardized, at first on the national level and then on the international

level. The oldest standard for libraries seems to be the catalogue card of international format (75 by 125 mm) introduced in the United States at the beginning of the twentieth century (31, p.331).

At present, it seems that almost all countries, particularly those in the developed areas of the world have developed and maintained standards for their own library and information services. This can be evidenced by looking at Withers' survey (32) of recommended standards for all types of libraries in twenty countries. International bodies such as the International Standardization Organisation (ISO), the International Federation of Library Associations and Institutions (IFLA), the International Federation for Documentation (FID), and Unesco, have been engaged in developing international standards for library and information services, which all aim at promoting international cooperation in information provision and exchange. As for instance, IFLA has been at work since 1954 to establish international standards for cataloguing and bibliographic records. One of IFLA's achievements in this concern is the development of the International Standard Bibliographic Description (ISBD) for monographs, published in 1971 and has been accepted by the British and the American Library Associations, and has already been introduced into the national bibliographies of Australia, Canada, France, the United Kingdom and West Germany (33, p.61, 69). Such attention given to the development of national and international standards for library and information services indicates very clearly the importance of such standards. What makes standards important is that they serve to meet the following needs:

- a. the need for a preliminary goal for a new or developing institution or a new developing service which is minimal in its requirements but which must be met for accreditation or other types of recognition (which we may designate as minimal standards);
- b. the need for statements of accepted guidelines or normative practices beyond any minimum level to provide a method of comparison with leading institutions and for self evaluation (diagnosis standards);
- c. the need for long-range goals for development which may not be met by any library now but which will challenge even first-rank institutions and which will set the direction for professional development in the ensuing years (projective standards); and
- d. the need to meet the requirements of individual librarians for statements dealing with qualifications, working conditions, professional responsibilities, and other personal practices as distinguished from institutional needs (personnel standards) (34, p.471).

Such is the importance of standards. Accordingly, efforts should be made to formulate and use ^{standards} in library and information services in Iraq.

11.5.1 National Standards

An attempt should be made to establish national standards adequate to the present national possibilities and potentialities, allowing for future development. Before initiating standards a comprehensive survey should be made of the existing library and information services, their objectives and level. This step is very necessary to form the foundations on which the establishment of standards will be based. A study of standards recommended for library and information services generally and/or in individual countries would be a useful aid in establishing one's standards. The American Library Association

has published standards for almost every type of libraries. British standards can also be helpful. A useful document that can be consulted for this purpose is Withers' Standards for Libraries : an International Survey (1974) published by Unesco. In addition to the survey of recommended standards for all types of libraries in twenty countries, the author outlines standards for various types of libraries that could be applied to library services in developing countries.

Other useful aids are: Functions and Organisation of National Documentation Centres in Developing Countries, by FID/Developing Countries Working Group (1975); Planning National Infrastructures for Documentation Libraries and Archives, by d'Olier and Delmas (1975); and Standards for Public Libraries, by IFLA (1973) where a particular attention is paid for the application of standards to developing countries. However, we do not mean here that the American or British standards or of any other country would be translated, rather they could be used as guidelines. The reason is that each country needs to create its own standards that closely relate to its library and information service, cultural, educational, social and economic situation and needs. National standards for library and information services in Iraq could be established by the Iraqi Library Association in collaboration with the National Library and with aid of the Iraqi Standards Organisation. In establishing such standards it should be taken into account that establishing standards does not in itself guarantee the achievement of the goals desired unless the standards are legally endorsed and effectively implemented.

The national standards should cover the following areas:

1. Accommodation. Minimum and maximum norms for certain categories of the library and information infrastructure; floor area allocation

between reading, storage (books, periodicals, audio-visual materials; technical equipment, reprography, etc., repair room), meeting room, administration, circulation; reading area allocation per user.

2. Material and equipment. Stock of volumes (books, periodicals, etc) per size of population, number of students, researchers, etc.; additional volumes to be acquired each year, including replacements for worn-out stock, reprographic equipment, etc., according to size of the library and information infrastructure.

3. Personnel. Number of qualified and other supportive staff required per size of population, number of students, variety of services offered.

4. Finance. Standard financial allocations could be reached in relation to 1, 2 and 3 above. It is necessary to take an appropriate year as a base line and allow for price fluctuations. As for example, see Figure (11.3).

5. Technical processing. Standards in this one includes:

a. Classification. A new classification scheme specially devised for Iraq would not be needed. What is needed is a standard adaptation of the universally accepted Dewey scheme (already in use in Iraq) taking into account the specific needs of the country as regards Islam, Arabic language and literature, Islamic philosophy, and modern history.

The nineteenth edition of Dewey system would be adapted. In this way library and information services will adhere to international practice.

b. Cataloguing. As for classification, a standard adaptation of the Anglo-American Cataloging Rules would be preferred to devising a new one. However, to enhance the uniformity in the data on the cataloguing card two things would be provided: 1) Cataloguing in

Publication (CIP) data is to be included in Arabic publications (see Figure 11.8); and a standard form to be devised and distributed by the National Library to all libraries and information infrastructures in the country. This form should include very specifically and interpret precisely all the elements of data to be entered on the catalogue card.

Figure 11.8 : Cataloguing in Publication Data

Library of Congress Cataloging in Publication Data
Main entry under title:

National library and information services:
A Handbook for Planners.

Bibliography : p
Includes index.

1. Libraries and state - Great Britain.
 2. Information services and state - Great Britain.
- I. Penna, Carlos Victor, 1911 - II. Foskett, D.J.
Z678.8.G7N3 027.541 76-54296
ISBN 0-408-70818-2

c. Subject headings. A standard subject heading list for Arabic works should be compiled, taking into consideration international practice in this concern.

To establish standards for technical processing requires a coordinated effort of all Arab countries. In all, the establishment and use of standards in the areas considered above will eventually facilitate the concept of an overall uniform and compatible national library and information service.

11.5.2 International Standards

The increasing needs for library and information services and the possibilities of technologies for handling information are stimulating international cooperation and coordination among information systems. International standardization became increasingly important to ensure greater effectiveness of library and information services all over the world and the use of these services across national, regional and international borders. For developing countries, the necessity of their adherence to international standards has been stated by the UNISIST programme as follows:

Whatever the scope and purpose of the library and information systems maintained in the developing countries, they will not be linked to UNISIST unless, like other countries in the developed areas, they adhere to the common standards and procedures evolved for the purpose. (35, p.122).

On this account, if we are to promote the country's participation in and benefit from international information systems and programmes such as UNISIST, for instance, the adherence to international standards like the following seems of overriding necessity.

1. International Standard Bibliographic Description (ISBD). The ISBD provides for a standard description of each new publication, which could be used both for catalogues in libraries and in international communication. The adoption of ISBD is one of the prerequisites to develop the Universal Bibliographic Control (UBC) of which the aim is to achieve universal availability, in an internationally interchangeable form, of basic bibliographic data on all publications. With the International Standard Bibliographic Description for monograph (ISBD-M)

and for serials (ISBD-S) all elements necessary for a bibliographic description are fixed in a distinct order of succession with punctuation prescribed to identify each element (see Figure 11.9). The title-page transcription and collation follow the rules for order of data elements and punctuation which are described in the International Standard Bibliographic Description, published by IFLA. The ISBD is being used in national bibliographies, such as the British National Bibliography and on printed cards distributed worldwide, such as the Library of Congress Card Service (1, p.171).

Figure 11.9 : ISBD Form of LC Card (1, p.170).

<u>Plant science</u> : an introduction to world crops / Jules Janick ... [et.al.] . - 2d ed. - San Francisco : W.H.Freeman, 1974.	
viii, 740 p. : III. ; 26cm - (A Series of books in agricultural science). Includes bibliographies and index. ISBN 0-7167-0713-6	
1.Agriculture. I.Janick,Jules,1941-	
Library of Congress	MARC

Original LC card

Plant science; an introduction to world
crops [by] Jules Janick [and others]
2d ed. San Francisco, W.H. Freeman [1974]

viii, 740p illus. 26 cm.

(A series of books in agricultural
science). Includes bibliographies.

1. Agriculture I. Janick, Jules, 1931.

SB91.P55 1974

630

73-13921

ISBN 0-7167-0713-6

MARC

Library of

73

Congress

ISBD LC card

For Iraq to participate in the development of the Universal Bibliographic Control, it is necessary to use the ISBD in the Iraqi National Bibliography which itself should be produced according to IFLA's Guidelines for the National Bibliographic Agency and the National Bibliography, published by Unesco in 1979.

2. International Standard Serial Number (ISSN). The ISSN is designed to bring consistency to the identification of all serials, no matter which conventions are used for describing them. Because of the changeable nature of serials and the alternative ways of dealing with them, the ISSN can serve as the lingua franca for serial identification. As the internationally ratified numeric standard for uniquely identifying serial publications, the ISSN is universally useful for individuals and groups involved in acquiring, supplying, cataloguing and storing serials. The use of the ISSN is promoted by the International Serials Data System (ISDS) established in 1975 (36, p.245). A typical ISSN is formed of eight digits

and is presented in two sets of four separated by a hyphen and preceded by ISSN. The numbers themselves have no significance except to identify a serial title uniquely. For example, the ISSN for the Unesco Journal of Information Science, Librarianship and Archives Administration looks like this : ISSN 0379-122X.

3. International Standard Book Number (ISBN). The ISBN was adopted in the United Kingdom in 1967 (37, p.5). It does for books what the ISSN does for serials. The advantage of ISBN is obvious. By giving each book an individual ISBN, it enables this book to be identified, and by using ISBN in computers, the storage, distribution, sale and invoicing of book is largely simplified and accelerated. A typical ISBN is composed of ten digits divided into four groups and these are separated by a space or a hyphen. The first group of digits stands for the national language and geographic area in which the book has been published, the second group for the publisher, the third for the title, and the fourth is a check digit. As for example, the ISBN for the book : Standards for Public Libraries, by IFLA (1973) stands as ISBN 3 - 7940 - 4310 - 3 or it may be like this ISBN 3 7940 4310 3. The rules for constructing ISBNs are given in the International Standard Book Numbering, by the Standard Book Numbering Agency (London, U.K.). Therefore, in order to facilitate the identification, storage, distribution, sale and invoicing of books, the ISBN system should be adopted and hence an ISBN be allocated to each book published in the country. Since the size of book production in Iraq is not that large, the establishment of an independent numbering agency is not needed. The National Library could do the job and of course in collaboration with the publishers in Iraq.

The establishment and use of standards will largely depend on the initiative of the Iraqi Library Association and the wish of the authorities responsible for the provision of library and information services in Iraq. In establishing standards it should be kept in mind that:

Useful standards can be formulated; reasonable measures of achievement can be devised, if one knows what they are devised for (38, p.176).

11.6 Centralizing Administrative and Processing Work

Looking at the current scene of library and information services in Iraq, one can see the existence of dispersed groups of libraries - academic, public, school, special. Cooperation, coordination, and communication among these groups and among individual libraries within each group is almost lacking. Inconveniences in the application of the cataloguing rules (AACR) and the classification system (Dewey) often occur with the result that uniformity of bibliographic description and organisation of materials is not existing. Duplication of effort and unnecessary duplicates in the material collections are general phenomena. Centralized administration and processing (acquisition, cataloguing and classification) are, therefore, needed because: 1) a clearly defined and centralized administrative structure can maintain effective communication among the libraries concerned and thus efficient cooperation and coordination could be attained; 2) Centralized cataloguing and classification can ensure uniformity in the bibliographic description and organisation of materials and thus enhancing the development of effective bibliographic control; 3) centralized administrative and

processing work can prevent much duplication of effort and waste of manpower; 4) central acquisition can cut down duplication of expensive general reference works such as bibliographies and avoid too many copies of individual titles being bought; 5) central acquisition can cut down expenditure on material purchasing by getting discounts usually offered in bulk purchasing; and 6) centralized processing can maximize the expertise of professional staff and enables more time to be devoted to readers' services. Zehery (39) sums up the importance of centralized processing by saying that:

When properly designed and administered, centralized technical services ... can provide a more efficient and economical means of preparing materials for library use (p.164).

Centralizing administrative and processing work could be made as outlined below:

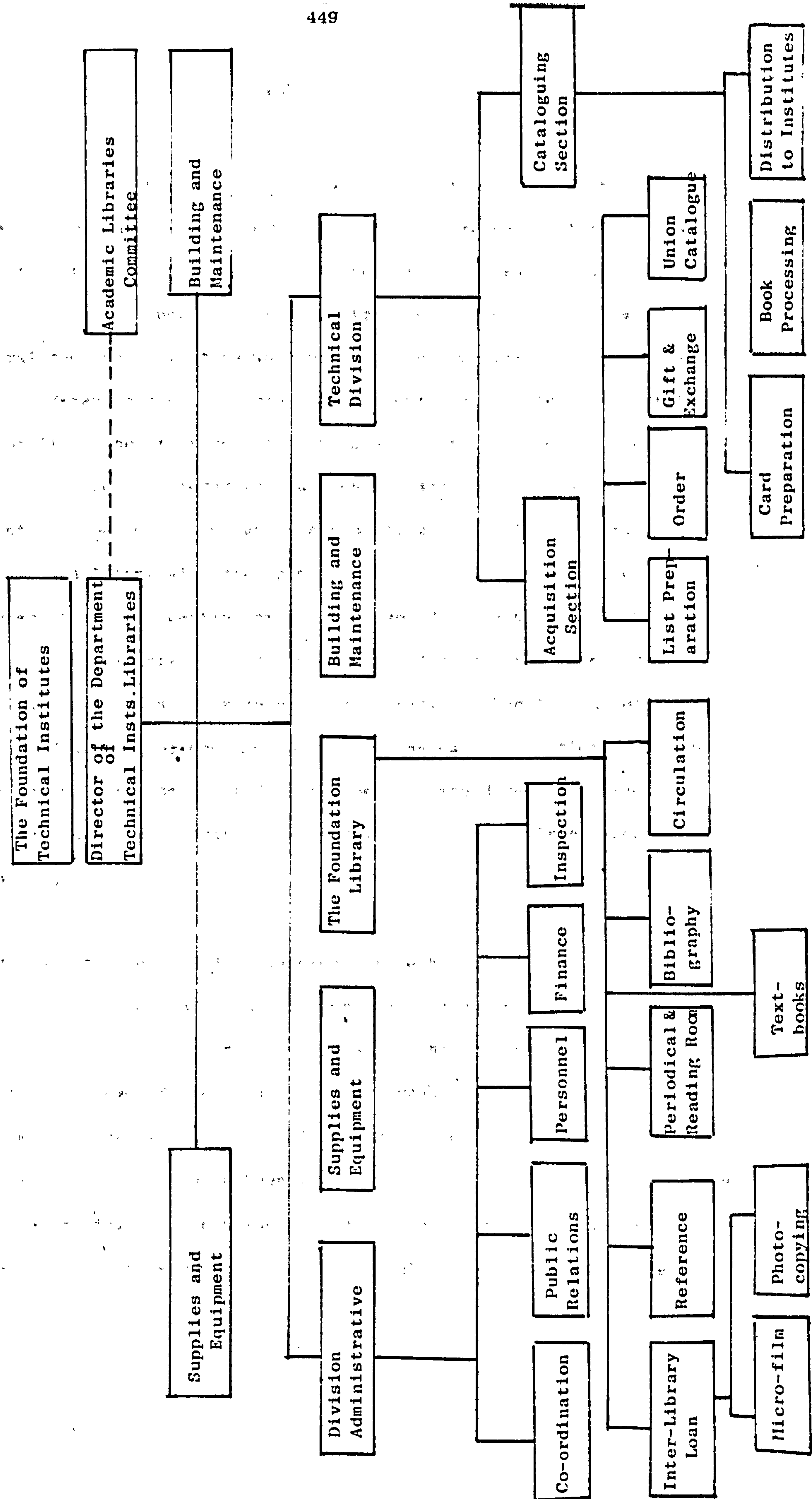
1. Academic libraries. The administrative responsibility for university college libraries within each university would be entirely handled to the central library of the respective university. Administration departments in the central libraries should be expanded, well equipped and staffed. Acquisition, cataloguing and classification of materials for college libraries would be carried out in the central libraries. Cataloguers, classifiers and acquisition personnel in the college libraries should be transferred to the processing departments in the central libraries. Of course, all these will lead to some sort of organisational restructuring in both the central and the branch college libraries. One may ask here why we do not have only one library in each university instead of many libraries - central and branch. Of course, one library in each university is preferable, but is not feasible. The reason is

that decentralization of library facilities has been necessary because of the undefined university campuses which in all universities (except AL-Mustansiriya University and the University of Technology; each has one main library) stretch for several kilometres along the city where the university is located. As for the technical institutes' libraries, a department of libraries could be created within the Foundation of Technical Institutes. This department will do for the technical institutes libraries what the central university library does for university college libraries, as mentioned above. The organisational structure of this proposed department is shown in figure (11.10).

2. School libraries. A department of school libraries would be established in each Directorate-General of Education in each Governorate of Iraq. This department will be responsible for the administration of and technical services for school libraries in its respective Governorate. The organisational structure of the proposed Department of Technical Institutes Libraries (figure 11.10) could also be suitable for a department of school libraries.

3. Public libraries. The responsibility for public libraries in Iraq is now shared by the Ministry of Culture and Information and the Ministry of Local Government. Therefore, the first step should be to handle the entire responsibility for public libraries to the Ministry of Culture and Information to maintain uniformity of responsibility. The Ministry of Culture and Information is then asked to designate the largest public library in each capital city of each Governorate as a central public library and that all other public libraries would be duly branch libraries responsible and subordinate to the central library. The designated

FIGURE 11.10 : The Department of Technical Institutes Libraries



central library should be reorganised and well-equipped with all necessary resources required to carry out the responsibility of the administration of and technical services for the branch libraries.

As for special libraries, it is not feasible to attain centralized administrative work because each special library belongs to a different ministry or other government organisation. To attain uniformity of descriptive cataloguing and classification in special libraries, special libraries could obtain advice from the Iraqi Scientific Documentation Centre and/or from the National Library.

All central bodies proposed in this section and which will be responsible for central processing, would be required to provide the National Library regularly with up-to-date printed catalogues of all the holdings in their respective libraries. Had the National Library found differences in the bibliographical description of a given item included in the printed catalogues, it would recommend the right one and that all libraries concerned should amend their catalogues accordingly.

11.7 Application of Modern Information Technology

It is obvious that the world at present has reached an age characterized by rapid intellectual and technological achievements. The large volume of man's intellectual production has brought about an information explosion. The variety and complexity of demands for information by users have been increasing considerably. All these have put the traditional tools and methods of information storage and retrieval to a severe pressure. As a result, great changes in these

tools and methods have taken place. The use of information technology (the computer, for instance) in automating library and information operations in many countries is quite evident today. The computer has been, for more than two decades, one of the most outstanding components of modern technology introduced to cope with the rapid growth of and increasing demands for information. It is being applied now, particularly in the developed countries in various aspects of information storage and retrieval. Its application ranges from automating in-house library and information operations - acquisitions, cataloguing, circulation, serial control, etc. - to literature search, producing bibliographies, Selective Dissemination of Information (SDI)), etc. The application of computers for the automation of information storage and retrieval is justified for any of the following reasons set out by Professor Arntz (13):

- to achieve real economy (i.e. the cost of machine retrieval of documents, taking into account all labour and machine costs as well as effectiveness, must be lower than that of the use of non-mechanized facilities;
- to minimize information access time, where time rather than cost is at premium;
- to perform functions not possible otherwise (p.14).

The functions offered by computers nowadays which are of most value in the library and information operations are: a) storing large volumes of textual and structured information; b) communicating large volumes of information; c) arranging, sequencing and publishing large volumes of information; d) constructing indexes of many forms to stored information by many facets or access points; and e) performing 'dialogues'

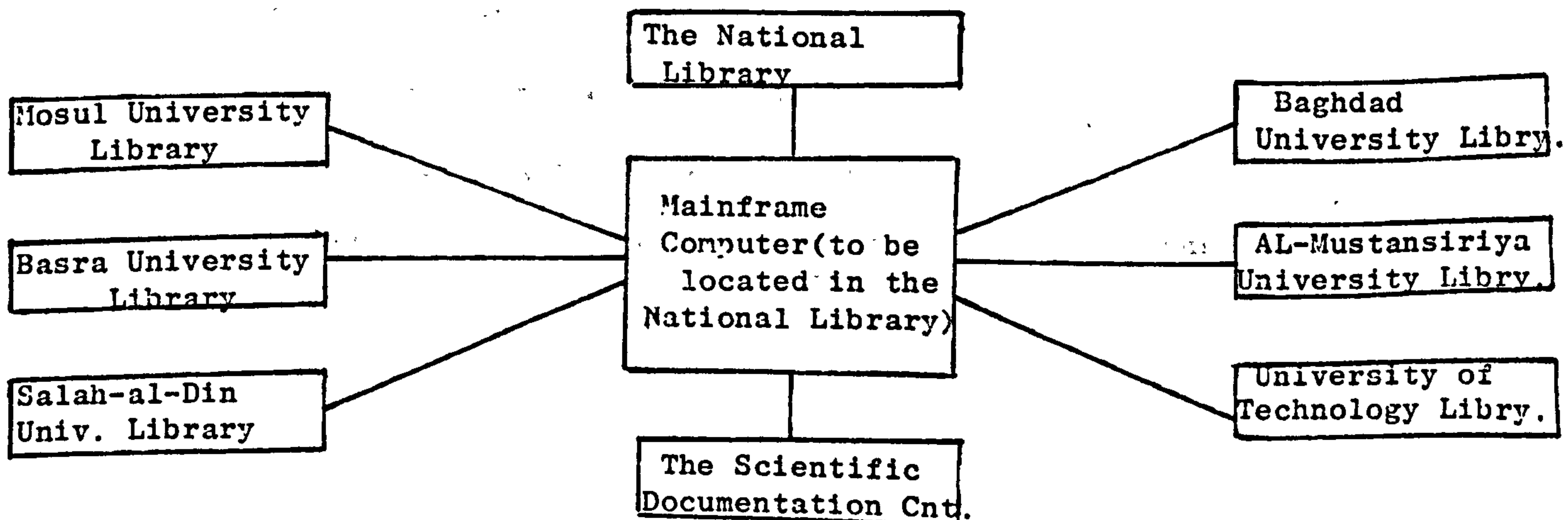
with users to offer rapid response, and, importantly, progressive improvement of search criteria (40, p.17). This indicates that the country's future ability to handle information efficiently will largely depend on the extent of its application of the modern information technology. Anderla (41) stresses this point by stating that it is possible to cope with the rising tide of information for some time yet, but after fifteen or twenty years the choice will be either automation or suffocation (p.89).

In Iraq, the computer has not yet made its entry into library and information services although it is being used in other sectors. This is because the use of computer may be an expensive process in terms of the size of library and information services, resources, and information population in Iraq. However, in considering the rapid growth of literature, the application of computer and the various rapid copying devices would be of substantial benefit in future. During his visit to the country, the candidate found out that there has been a growing tendency among the leading people in the profession towards the automation of library and information activities, particularly in the National Library, the Scientific Documentation Centre and the university libraries. It is true that the use of computers will enhance the development of information resources and services, but this should in no way be based on individuals' desires. Contemplating computerized systems necessitates careful evaluation and the conducting of surveys, to ascertain the kinds of systems which will be suitable for our purposes. Munn (42) stresses this point by saying that:

...imaginative and intelligent use of modern technology is often the quickest and least expensive way to improve the quality of information resources and services in developing countries. However, this is true only if the responsible local officials are fully aware of both the technical and fiscal problems involved. The decision to use computers and other expensive equipment should be made only after the most careful study (p.13).

The application of information technology, i.e. computers and rapid copying machines, in library and information services should be considered seriously and put into practice. The most practical areas to be mechanized are: acquisitions, cataloguing, circulation, serial control, and production of union lists and catalogues, bibliographies, indexes and directories. The automation of these areas costs much money, requires skilled personnel and technical expertise. To justify cost effectiveness of automation, it should not be applied to an individual library and information infrastructure. Automation of the areas mentioned above would be justified if it is applied on a national basis. As the first step towards automation of library and information services in Iraq, the National Library, university libraries and the Scientific Documentation Centre could share the installation of a mainframe computer in the National Library and be linked to it by terminals, as illustrated in figure (11.11).

Figure 11.11 : Sharing Computer Facilities



This step in automation could be the foundation stone for further automation of other activities and other libraries, and for the development of a national library and information network.

The introduction of modern information technology in Iraq is very much needed for the purpose of benefiting from international information systems which are already computer-based. As Sardar (43) points out, much of the information the developing countries seek can be retrieved in many countries around the world simply by using a small portable computer terminal and the telephone network on dial-up basis (p.57). It is possible now for researchers to identify articles, conference papers, technical reports, etc., from their own terminals. They can also, just by pressing a button, receive by airmail from anywhere in the world, the wanted documents. The DIALORDER of Lockheed DIALOG, gives the individual the opportunity to have new articles from a great variety of journals within a few days (19, p.5). This stresses the fact that the application of modern technology in library and information services is inevitable if we want to achieve an efficient flow of information.

Above all, in preparing for the automation of library and information services, the following actions recommended by the Workshop on the Development of Libraries and Information Systems and Services in Kuwait and the Gulf Area, 1980 (44) should be taken into consideration:

- Establish criteria
- Review and identify needs
- Prepare data file and records
- Identify staffing needs (number, qualifications, training requirements)

- Establish training and continuing education programmes.
- Prepare facilities.
- Establish coordinating procedures.
- Establish standards (cataloguing procedures, etc).
- Begin preparing the users (introduction to computer equipment).
- Identify what computer systems are available and select the most appropriate one.
- Improve telephone network (p.8).

11.8 Cooperation in Library and Information Services

The overflow of information and the increasing costs of library and information services and operations have made it impossible for a single service and even for a country to be self-sufficient in information acquisition and utilization. Urquhart (45) stresses this point by stating that:

...if information is to be made adequately available neither a single service nor the information system of any country can be a self-sufficient island (p.16).

This has made it an overriding necessity that library and information infrastructures should cooperate to ensure rational acquisition and utilization of information for the benefit of society. The Cairo Expert Meeting, 1974 (45) regarded close cooperation among library and information services as an effective means that could provide the best solution to existing problems facing the Arab countries. With this in view, the Meeting recommended that:

Efforts be made to promote effective cooperation between all types of documentation and library services, particularly in the fields of cooperative acquisition of materials, centralized processing, the establishment of union catalogues and interlibrary lending systems (p.186).

Cooperation between all types of library and information services is very feasible simply because all these services are engaged in performing one common function - information storage and retrieval. From the following statements one can detect how important is a cooperative venture in the library and information field.

Cooperation among all types of libraries offers the opportunity to provide more service to more users. Its goal is increased quality and accessibility of library services and materials, elimination of unnecessary duplication of resources, better use of the services of professional librarians, and co-ordination and mobilization of all resources of the several types of libraries (47, p.118).

...libraries, linked together in common bonds of cooperation and understanding, like the strong links of a forged chain, will bind people together as mutually supportive members of the emerging information society (48, p.21).

Library and information services in Iraq will remain fragmented and deficient in many aspects without an effective cooperative venture be established among them. The areas in which cooperation is mostly needed in Iraq are the following:

1. Acquisitions. Unnecessary duplication of materials exists in almost all types of libraries and in libraries within each type. To eliminate such duplication, cooperative acquisitions could be established. Such acquisitions should be based on the recognition of specialization in the collections of all libraries in particular subjects. As such the need for duplication in other libraries at a more general level in these

subjects could be avoided. It must be taken into account that where high demand for certain materials exists some duplication of these could be made. In relation to this there could be a re-allocation of minor parts of the collections of some libraries where there are materials irrelevant to a particular library but of use to another.

2. Producing union catalogues and lists. In the present practice very little is known about who owns what of materials. As such a considerable part of the material collections of libraries has been eliminated from being used because it is not known. To avoid such a discouraging aspect all libraries should participate in compiling union catalogues and lists. A union catalogue and a union list will make it very easy to know in which library a particular publication is and to turn to that library in time of need.

3. Cataloguing. Bibliographic description of materials is not yet fully uniform. Differences in the bibliographic description of a particular publication can be found in catalogue cards of the libraries having that publication. A cooperative cataloguing to be established on a centralized basis as we suggested in section (11.6) could provide for the uniformity of bibliographic description and eventually enhance bibliographic control in the country.

4. Producing bibliographies. Between now and then bibliographies of various kinds are produced by individual libraries. The production of such bibliographies is irregular. Sometimes, in one way or another, duplication in producing bibliographies occurs because of lack of

communication and cooperation among those who produce the bibliographies. By a cooperative venture it is possible to define who will produce what and when. In so doing the continuity of producing bibliographies can be maintained and duplication of work be avoided.

5. Storage. Some libraries in Iraq have space enough for some years to come, others are already facing lack of space. It is axiomatic that when the size of the collection of a library exceeds its space capacity that library will plan to store the less used and dated materials. It would be more economic and beneficial for libraries to share a co-operative storage where the stored materials can be available to any of them.

6. Interlibrary lending. The lack of enough materials within each library in Iraq is a well known phenomenon. Where resources are limited, cooperation which allows each library to depend on the other to satisfy users' needs seems to be crucial. Interlibrary lending is the most outstanding form of cooperation. It can reduce the amount of duplication of materials in the country, particularly of the expensive ones. Once a publication is in the country it can be made available through interlibrary lending system to any user who wants it, no matter where he is or where the publication is.

To develop an interlibrary lending system in Iraq, the National Library should, under appropriate legislation, be accorded a position to formulate a comprehensive interlibrary lending and acquisition policy for the whole country. The National Library should be the centre of interlibrary lending activity. Such a central collection of materials, particularly of foreign literature, should be maintained in the National

Library for this purpose. It should be kept in mind that an extensive collection of foreign literature is not needed. What is needed to be acquired of foreign literature is only what is highly demanded in the country. It would be more economic to depend on international lending to meet marginal needs of the libraries in Iraq. The open availability of photocopies from huge stores of books and journals, such as the British Library Lending Division, makes it irrational to spend large amounts of money on building a strong collection of foreign literature. Above all, an interlibrary lending system would not be a success unless the factors contributing to its success be made available. These factors include union catalogue and lists, efficient communication channels - transportation, postal facilities, telephone and telex facilities - and rapid photocopying equipment.

Library and information cooperation on the national level in any country is a crucial prerequisite for cooperation on the international level. It is said that doctors should cure themselves first! By the same token, a country should establish an efficient machinery of cooperation on the national level. It is only then that the country can step forward to participate in international cooperation. An effective cooperative venture on the national level creates the foundations on which the participation of the country in international cooperative activities can be established. It is irrational to expect that the country can participate and benefit from international cooperative activities when cooperation among library and information services at the national level is lacking. Therefore, if the country is to participate in and benefit from international cooperation, it should first of all link its library and information services in efficient cooperative bonds.

Since library and information services in Iraq are public services, any cooperative venture on the national and/or on the international level will not be a success without the involvement of the government. What is needed is that the national government issues an adequate legislation which legally imposes that library and information services in Iraq should work together with mutual benefits towards the achievement of their objectives.

11.9 Stimulating Information Awareness and Use.

Library and information services flourish when the value of information is understood and the need to make the information available at a large scale is recognised. In Iraq, one of the basic problems facing the development of library and information services is the lack of understanding and appreciation on part of the authorities responsible for the provision of these services and the general public of the value of information and the objectives of library and information services. To stimulate information awareness and use, the following requirements should be met.

11.9.1 A National Awareness Campaign

A national awareness campaign should be planned and implemented by the Iraqi Library Association, being the organised voice of the profession, in cooperation with other interested institutions and organisations. This campaign would aim at two target groups: 1) government planners and policy-makers; and 2) potential users of library and information services. The awareness and conviction of planners and policy-makers of the importance of efficient library and information services in the nation's

development, will result in according these services the rightful priority in the government measures. The awareness of potential users of the importance of library and information services in their personal and professional life, and of the extent of services and resources available for them will lead to better utilization of the services and resources. Without this even the most developed library and information services will be of little value.

The overall objective of the campaign is to communicate to the planners, policy-makers and potential users the fact that efficient library and information services and their full utilization is essential to achieve national goals and individual self-development. The campaign could start with writing articles in newspapers and magazines and making talks on radio and television whenever possible. Organising conferences and seminars to which influential members of the government and political leadership, sociologists, educationalists and economists could be invited, would provide an effective means to communicate the importance of information to the nation. Lobbying members of the National Assembly is another area of activity that the campaign should include. Personal interviews with members of the government should also be conducted. Experimental work to demonstrate the loss of capital investment that results from deficient library and information services could be done. This will convince financial authorities to make better investment in the library and information sector. The close relation between publishing programmes and adequate library and information services as distributing and consuming agents should be demonstrated to the publishing sector to win its support to the campaign. Another area

of activity of the campaign is the establishment of library societies in educational institutions, organisations and local communities. Good use can also be made of well-designed folders and posters which could reach the hands of those who might benefit most from library and information services. Good use can also be made of oral publicity by professionals going out to give interesting and convincing talks on library and information services to all kinds of audience. Exhibitions and displays are another effective means of publicity. Regular programmes of display inside the library and information premises could be followed. For those who, for one reason or another, do not make their way to library and information services, exhibitions and display can be set up in schools, colleges, universities, town centres and halls, banks, airline offices, hospitals and clinics, and in every place where people get together or pass by. National Library Week should be a regular annual activity pursued at the national and institutional levels. It should be taken into account that the process of changing the pattern of society would be a slow process, and that many years of patient and hard work are indeed needed on the part of all those who look forward to the development of library and information services in Iraq, if awareness is to be achieved.

11.9.2 Revising the Educational System

The educational programmes at all levels depend entirely on the traditional 'chalk and talk' method of teaching and even more restricting the sole textbook. Students are required only to memorize the teachers' lecture notes and the textbook in order to pass examinations

and advance along the educational ladder. Therefore, it is difficult to motivate the students to get interested in the subject matter and to find out more about the particular subject. Thus, the value of information is not stimulated and the habit of information-seeking is not developed in the students. Eventually the library at a particular educational institution seems of little value and consequently its development ranks very low in the list of the institution priorities. This situation calls for a radical revision of the existing approaches in the teaching/learning process and acceptance of many new methods and tools which can be tailored to the intellectual and emotional growth abilities of the students. The revision of the educational system should consider the determination of a challenging educational programme that moves away from the textbook method of teaching; that puts a greater emphasis on stimulating reading interests and on the use of assignments as part of the teaching process, where the students are encouraged to discover things by themselves. This will largely encourage the students to use the library which has to ensure the availability of reading materials relevant to the needs of the educational programme. In this way the library will become a truly integrated part of the learning process and thereby a more effective library service will be provided.

Having experienced the value of information and built up the habit of reading and independent discovery of things during their academic life, the students will keep on practising this habit in their career life. Wherever they work they may demand the sort of library and information services that meet their needs. *One* of the basic problems facing the development of library and information services is

the lack of understanding on part of planners and policy-makers of the value of these services because they might have come from backgrounds where these services have played a very minor part. When the future planners and policy-makers (today's students) of the country come from a background where library and information services have played a vital part, there is no doubt that they will totally support and work for the development of library and information services in the country.

11.9.3 User Education Programmes

The ultimate goal of library and information services is the user. Even the most advanced library and information services in the world can be of little value if the user cannot make use of them.

As stated in a Unesco document (49),

Users of information are an integral part of and the final link in the information chain,...

In every country, from the least developed to the most advanced, a certain amount of scientific and technological information - locally produced or of international origin - is processed and stored in some fashion for the benefit of users. Unless these users know how to find relevant information available to them, the information 'machinery' falls short of its main goal.

In Iraq, as was pointed out in Chapter seven (section 7.4) library and information services are underutilized. This is simply because, among other things, the users for whom these services have been established, are generally unaware of, and do not know how to use, the services and resources available for them. This necessitates the development and implementation of user education programmes to make the user aware of the extent and number of services and resources available to them and to

teach them how to use them. This question is stressed by NATIS

Objective 2 (Stimulation of User Awareness).

In order to increase user awareness, appropriate bodies, including universities and other educational institutions should include in their programmes systematic instruction in the use of the information resources available in all elements of NATIS (3, p.25).

This presupposes that instruction in library use should start from primary school where the child from a tender age could be initiated in the art of using books and other information sources. This can raise the standard of education, stimulate intellectual curiosity and train the pupils early in self-reliance and independent thinking and studying. If this is generally adopted in the primary and secondary schools, the institutes of higher education will receive students of much more higher standards, and who have already acquired the habit of using library materials as tools for study and intellectual advancement. This in itself will save time and effort in conducting user education programmes at institutions of higher education.

At school user education programmes should be directed toward the teaching of basic library skills to the student. Skills should not be taught in isolated cases but should be geared to specific situations and needs which could result in making the use of the library materials an integral part of the student's learning process. Programmes in library use could be provided either formally or informally to individuals or groups and taught either by the school librarian or teachers or by a combination of both. Taking the reluctant and indifferent attitude of students towards informal, or let us say voluntary learning, instruction in library use should be compulsory to be taken seriously and as such it

should be integrated into the total school programme. Experiences in the United States, Canada (50,51) and Australia (52) show that students will not gain necessary library skills unless the instruction of these skills is deliberately built into the curriculum.

By studying the failures of past user instruction programmes and the success of the present ones, librarians can be assured that it is possible to integrate user instruction into the total academic curriculum to insure its success (51, p.73).

Motivation was considered to be the most important one. This could be achieved if the formal library instruction was integrated with the course and was thus relevant to the work being done by the student (52, p.103).

This requires the availability of qualified school librarians and the knowledge of library skills on part of the teachers. For the short-term action, short training courses to train teachers on library skills could be organised on a national level by the Ministry of Education in co-operation with the Department of Librarianship in AL-Mustansiriya University, university libraries, and the Iraqi Library Association. For the long-term action, librarianship should be introduced in the teacher training colleges and institutes curriculum as a compulsory subject. The process of integrating library instruction programme into the school curriculum seems to be a slow and difficult one. However, if it is based on good planning, cooperation, patience and commitment, success can be reached. An outline of the Library-Instruction Curriculum in the Wayne-Westland (Michigan, U.S.) Community School District, which can be used as a guideline in designing a library instruction programme for our schools, is provided in Appendix (2).

In the institutions of higher education programmes of user education can then concentrate on the more advanced areas of the intellectual development of the student and in a greater depth on the teaching of subject fields of his choice. This programme can concentrate on sources of information in specific subjects and the more advanced techniques and methods of gathering information. Students should also be trained to know how to produce new information and understand the way in which it is disseminated to further users. They should also be acquainted with the general tasks of library and information work to help them realise the importance of their cooperation with library and information personnel. The British Library Association's three-point programme quoted by Boadi (53, pp.230-231), provides a useful framework around which user education programmes at the university level could be designed.

1. an introduction to the library for all new undergraduates and post-graduate students. This would consist of a lecture by a senior member of staff of the library, with illustrations where necessary, followed by a guided tour of the library;
2. at an appropriate stage in the student education (the second or third year as may be deemed necessary) the student would be introduced to basic bibliography. In addition to the techniques and references related to the student's field of study should as far as possible, be used;
3. at the post-graduate level, and before he began his research project, the student would be introduced to advanced bibliographical methods. This final instruction could be undertaken partly by the library staff and partly by the academic staff.

For users of special libraries (i.e. in the ministries and other government organisations) and the Scientific Documentation Centre, user

education programmes cannot be followed formally as in the case of educational institutions. Instruction in the use of the library or an information unit which would cover the explanation of existing methods and services could be introduced at the time when the users join the organisation. Any further developments, the introduction of new techniques or services, for example, that may occur in the existing library and information services should be communicated to the users on individuals or groups basis. In public libraries, it is difficult to pursue user education programmes because the users of these libraries differ very much in their educational, cultural levels, needs and interests. However, explanation of existing methods and services in the library can be made at the time when users make their way to the library. In addition to this the public libraries should provide their users with library guides and/or manuals to help them find their way to the services and resources.

11.9.4 Easy Access

It is not enough to make the users know how to find the information they need. It is also very essential to provide them with an easy access to the sources of information. Library and information services are not only concerned with the collection and organisation of materials, but also with making these materials readily available for use both inside and outside their premises. Therefore, a new circulation policy should be adopted by all library and information services existing in Iraq to encourage maximum use rather than preservation of materials, which tends to be the case at present. The storehouse regulations imposed

on material circulation in most libraries should be replaced by library regulations that allow for efficient external borrowing of materials. The closed access system imposed on the undergraduate students in the universities, public and school library user should be lifted. Open access systems increase material utilization by providing the user with the opportunity of browsing along the shelves where the user may come across a relevant title which he has not been aware of.

11.9.5 Current Awareness Services

Current awareness services are effective means in promoting information awareness and use. They serve to keep users, particularly scientists, engineers and research workers, abreast of scientific and technological achievements. If discoveries and new developments can promptly and sufficiently be brought to the attention of scientists and engineers at large, technological progress may be accelerated. Current awareness is tended mainly to inform the user of the existence of newly published or newly available materials which are likely to be relevant to his professional needs and interests. Besides, it has the advantage of saving the user the time spent in searching and scanning current materials in his field of interest, and it discovers materials which may have been missed by ignorance of potentially useful sources. Therefore, the university libraries, the special libraries and the Scientific Documentation Centre should provide Selective Dissemination of Information (SDI) services for their users. They should also produce current awareness bulletins and/or newsletters and distribute them to users.

11.10 Promoting the Publishing Industry

Library and information services cannot survive without a permanent supply of materials, particularly in the local language. Library and information services cannot remain dependent on the importation of foreign literature. It is only the adequate indigenous publishing industry that can keep library and information services alive.

Without local publishing of locally needed materials, school and public library service is thin and bound to be frustrating in the developing countries (54, p.234).

The true potential library services will never be realised in the developing countries until libraries in general can reduce their dependence on foreign literature and provide for more of the basic needs of their users from local publication (55, p.29).

This presupposes greater production, wider distribution and better use of local literature in all areas of interest. To bring this into practice, the publishing industry in Iraq should be promoted to the extent that it can efficiently diffuse the knowledge whether of local or international origin, and enrich library and information services. To promote the publishing, we should ensure the availability of all its elements and that these elements made to function effectively together. These elements include: quality manuscripts to be published; the editorial expertise to coordinate the publishing process; credit facilities and government subsidy; printing equipment and the technical expertise to operate and maintain the equipment, efficient means of distribution, and a continuing market for the published work.

In order to ensure the availability of quality manuscripts for publishing, authors should be encouraged to write by awarding them

higher motives. Universities, and other institutions and organisations should stress on creative and relevant research work and must provide rewards for such work. An editorial body could be developed from the university academic community or from other institutions where editorial expertise is available. A careful study of existing publishing technology should be carried out by experts and the choice of the technology that could meet our needs could be made. A publishing course could be started at the Department of Librarianship at AL-Mustansiriya University and a printing technical institute be opened within the Foundation of Technical Institutes. As regards distribution, the National House for Distributing and Advertising should expand and promote its distribution system, using every possible modern technological means. The national Government is requested to offer all possible financial facilities needed for the development of publishing industry, whether public or private. To guarantee a continuing market for the published works, library and information services could stand as the major customer in this market provided that they would be funded adequately. The Government can also contribute to this by subsidies to make prices of publication in the reach of all the literates of various income levels.

In order to reach good results in the process of promoting the publishing industry, all the elements which contribute to such promotion need coordination. For this purpose a national council for the advancement of publishing industry could be established. The members of the council should represent the authors, editors, publishers, booksellers, library and information services, the National House for

Distributing and Advertising as well as government departments and universities. The council will be responsible for: 1) promotion of the publishing industry by encouraging the establishment and development of publishing houses; 2) advise the government on specific problems and needs; 3) to develop a national book programme based on the result of a comprehensive survey of the people's reading needs and interests; 4) to make proposals on publication pricing and government subsidy; 5) to advise public and private sector on publishing technology; 6) to conduct studies and experimental works on specific aspect of publishing; 7) to organise conferences, seminars, workshops, book weeks, book fairs; and 8) to publish a journal. To function effectively, this council should be established under appropriate legal base that accord it the power and authority necessary for the compliance, on all individuals and organisations concerned, with its decisions and/or instructions.

11.11 The Role of the Iraqi Library Association

One of the most outstanding characteristics of a profession is a well-established professional association that stands as the organised voice of the profession and provides professional leadership in relation to the profession, individuals and society. Such a professional association is very much needed in Iraq to enhance the general development of library and information services. Therefore, the Iraqi Library Association (ILA) should establish itself to represent the profession to the society it serves; to coordinate and enhance the interests of the members; to encourage and assure the establishment and

maintenance of library and information standards; and to foster an image of the profession, that will stimulate the interest of qualified young people. In the general development of library and information services, the experience of ILA is needed in formulating policies and in preparing development plans. ILA can contribute considerably to raising the qualifications of library and information manpower by having its voice in ensuring that education and training programmes are of the desired standards. It can also provide opportunities for research and publications. As the representative of the profession, ILA can promote the professional and financial status of its members by imposing entrance qualifications for membership, formulating standards for services, laying down the rules and regulations for membership, and lobbying the authorities concerned to raise the salaries of its members. As the organised voice of the profession, ILA can present its views on the profession in newspapers, magazines, on radio and television whenever possible; by organising conferences and seminars, by publishing its official journal; and by providing for representation on appropriate bodies concerned with library and information services. ILA can also contribute to the development of regional and international relations and cooperation through participation in conferences, seminars, as well as in cooperative ventures. Its role in providing professional leadership can be undertaken by formulating and maintaining standards of membership, formulating standards on services, buildings, operation, etc., and promoting educational standards. Higher library and information qualifications will result in quality membership. ILA can also provide welfare benefits to its members and promote the social relation of the

members by organising social programmes.

In order to play its role in the betterment of the profession, ILA should, first of all, be led by people who are both professionally competent and professionally motivated. The other important factor is that ILA should have the power and authority to function effectively as the organised voice of the profession. At present, ILA is registered under the Act of Learned Societies which does not allow it to function as a trade union. Therefore, ILA should be accorded a legal status similar to that of the Teachers' Union, Engineers' Union, etc. which provides for the official recognition of the Government and leads to power and authority which enable ILA to play its rightful role effectively.

11.12 Seeking the Assistance of Regional and International Organisations

Many international and regional organisations involved in the library and information field are existing at the present day. Some of these organisations are totally concerned with library and information activities (i.e. IFLA, FID, ICA), the others have included these activities within their general programmes (i.e. Unesco, ALECSO). The major concern of these organisations is to promote understanding among nations, assist countries to develop their national library and information services, and promote international transfer and exchange of information. To overcome the problems facing our library and information services and to promote the advancement of these services, we can seek the assistance of the international and regional organisations which have included assistance to developing countries in their programmes. In seeking the

assistance of these organisations, we are required first of all to identify our needs and find out about the possibilities available to meet these needs through their assistance. It is only then that we shall express our need for assistance to these organisations. The organisations whose assistance could be sought are the following:

1. Unesco.

Since its establishment in 1946, Unesco has devoted itself to achieving greater social and economic development for its Member States through educational, scientific and cultural programmes. The work of Unesco in the fields of education and science has been a stimulus to the economic and social progress of its Member States. Vast educational, scientific and technical development programmes have been launched in the developing countries (56, p.284). The development of library and information services in the Member States has been one of the outstanding continuing activities of Unesco. This activity is crystalized in the UNISIST, NATIS and their successor, the General Information Programme (reviewed in Chapter three, section 3.3.2.2). Among the most effective ways in which Unesco helps to foster the development of libraries, documentation and archives in its Member States are: a) organising regional and international conferences and seminars on the development of library and information services; b) sending experts for planning purposes and for advising countries on their specific problems; c) awarding fellowships for advanced professional training and organising short training courses; d) publishing library and information manuals, guides and periodicals to provide professional reading for library and information manpower; e) providing equipment

and publications; and f) promoting book production in Member States by helping in the development and implementation of book development programmes. In fact, almost all Member States, particularly the developing countries such as Iraq, have benefited from Unesco activities. The Selective List of Activities in the Field of Information, published by Unesco shows the range of the activities undertaken by Unesco and the assistance it has offered to Member States.

2. The Arab League Educational, Cultural and Scientific Organisation (ALECSO).

ALECSO is a specialized organisation of the Arab League established in Cairo in 1970 and was transferred to Tunis in 1979. The organisation consists of five departments, each of which is specialized in a particular field such as education, science and culture. The Department of Documentation and Information (DDI) is one of these departments and its main objectives are:

1. To develop infrastructures of documentation and information centres in the Arab countries.
2. To provide bibliographical services, using modern information technology.
3. To promote the capabilities of librarians, documentalists and archives through library training courses, conferences and seminars.
4. To collect basic information on the Arab countries, particularly in the specialized subjects of ALECSO, and to make this information known world-wide.
5. To microfilm the largest possible number of Arabic manuscripts preserved in libraries and museums in the Arab region and abroad.

6. To compile a comprehensive up-to-date catalogue of Arabic manuscripts (57, pp.55-56).

ALECSO's efforts, according to AL-Khafagy(58), have included the initiation of the Bibliographical Guide to Reference Books in the Arab World, efforts for professional training of Arab librarians and information workers, and investigations into suitable cataloguing and classification of Arabic materials that take into consideration the characteristics of these materials as well as the characteristics of the users of Arabic texts (p.35). It has also engaged itself in providing principal rules that should be applied in formulating Arabic subject headings. The translation of ISBD-M and ISBD-S has been included within the programmes of the Department of Documentation and Information (57, p.59).

3. IFLA, FID and ICA.

The International Federation of Library Associations and Institutions (IFLA), the International Federation for Documentation (FID), and the International Council on Archives are international professional organisations which are specially concerned with libraries, documentation and archives. Their main concern is to bring librarians, documentalists, and archivists together from different countries with various practices, customs and traditions where they can present and exchange ideas on practices and problems of the profession. In this way they promote collective agreements or practices which may add to the efficiency of library and information services on national, regional and international scales (see Chapter three - section 3.3.2.3). These organisations have paid special attention to assisting developing countries.

IFLA's concern with developing countries is witnessed through the establishment in 1971 of a Working Group on Developing Countries to act as a coordinating agency with the other Sections and Committees of IFLA and to provide a forum for discussion of library problems of common interest to developing countries. The main task of this Group is to identify the major problems facing libraries in developing countries and to consider within the framework of IFLA ways by which these problems might be resolved (59, p.296). IFLA's special priority given to assisting developing countries is reflected in the projects and studies proposed by the Divisions, Sections and Round Table in the draft Medium-Term Programme 1981-1985 as compiled by IFLA's Professional Board (60, p.273). FID also has had a Committee for Developing Countries in operation since 1966 (61, p.228). The ICA decided in 1966 to give the highest priority to technical assistance for archives in developing countries. In 1972, a Committee on Archival Development (CAD) was established to plan and coordinate assistance to developing countries. In 1975, the ICA established a special International Archival Development Fund to assist developing countries in building effective modern national archival structures and services (62, p.343, 348). In seeking the assistance of these international organisations, it must be taken into account that these organisations act on requests from individual countries. They advise and recommend; the follow-up work lies in the hands of assistance-seeking country.

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CHAPTER TWELVEGENERAL SUMMARY AND CONCLUSION AND RECOMMENDATIONS
FOR FURTHER STUDIES12.1 Summary

Information has come to be widely accepted as a resource as important as other resources of energy, matter and human skill. Thus, it stands as an essential component in the development process of nations. This can be witnessed in the high priority attention given to this component by the countries which have passed through the development process. Such an attention has resulted, as one can see now, in the establishment and maintenance of advanced library and information services, where sophisticated technology (e.g. computers and other electronic devices) has been applied, in almost all the countries in the developed areas of the world. In addition, the large investments in the library and information sector; the large size of manpower engaged directly or indirectly in the generation, organisation and dissemination of information; the numerous facilities for the supply of professionally qualified library and information manpower; the national, regional and international cooperative ventures in the provision and exchange of information; and the large number of national, regional and international professional associations dealing with library and information practices and problems, all these stand as obvious evidences of the value of information and the overriding necessity for its maximum acquisition and utilization for the development of societies.

In the developing countries, which are looking forward and struggling for their own national development, information is an overlooked component in their social, cultural, educational, scientific and economic activities. Library and information services in these countries are generally deficient and fragmented. The rapid growth of population and high level of illiteracy; the underdeveloped state of economy, R & D and publishing; the traditional educational system and oral culture; and the colonial past, have all militated against the development of library and information services in the developing countries. However, taking into account their pasts and without comparing them with the developed countries, one can see that developing countries have really reached substantial achievements in almost all aspects of the development process. These achievements in themselves have created a demand for information and a force for the development of library and information services in these countries. As such, developing countries should pay a priority attention in their measures to the development of the library and information sector without which the development of the other sectors of the country cannot be fully achieved.

In Iraq, with which we are specially concerned, the history of libraries goes back to probably about five thousand years before Christ when this country (called Mesopotamia at that time) witnessed the birth and development of the first human main civilizations. The Sumerian, Babylonian and Assyrian civilizations grew and flourished in Iraq and subsequently the great libraries of antiquity were established. With the conquest of Babylon in 539BC Iraq became a part of the Persian

Empire and thereafter a venue for foreign dynasties and consequently, its culture became stagnant and retrogressing. With the advent of Islam and subsequently the liberation of Iraq from the Persians in 637AD, the Arabs achieved an empire extending from the shores of the Atlantic Ocean to the confines of China. During the Abbasid Dynasty (750 - 1258) Baghdad became the centre of a brilliant intellectual and material civilization which spread to many parts of the world and reached its peak in the tenth century. Institutions of learning, including libraries, were a most outstanding feature of that civilization. During the ninth century, there were sixty-three libraries in Baghdad alone. That civilization was destroyed by the Mongols when they invaded Baghdad in 1258. Since then Iraq had undergone successive foreign occupations (i.e. by the Ottoman Turks in 1539 and then the British in 1917) until it got its independence in 1932. Foreign occupations have deeply affected the cultural, social, educational and economic situation of the country. Institutions of learning were generally rudimentary and sterile in the sense of contributing to the culture of the people. This is why modern library and information services in Iraq are recent phenomena which made their entry in Iraq only in the 1920s.

During recent years, high priority has been given to the educational, cultural and socio-economic advancement of the country. This has resulted in a rapid expansion of educational institutions at all levels; establishment of various industrial, agricultural and commercial enterprises; the enhancement of research and development capacities; and consequently in the establishment of library and information infrastructures. At present there are one national library,

57 academic libraries, 8407 school libraries, 156 public libraries, 92 special libraries, one scientific documentation centre, and one archive centre. In all, they make a total of 8715. Nevertheless, these are generally deficient in many aspects of quality library and information services. The major aspects of this deficiency are:

- The provision, in most cases, of only traditional library services (i.e. circulation and reference).
- The material collections are generally limited in scope, poor in quality and in organisation.
- Cataloguing and classification of materials vary widely from one library to another.
- Inadequate bibliographical control.
- The closed access system followed in university libraries on parts of the undergraduate students, and in all school and public libraries.
- The surety requirements imposed on external borrowing in school and public libraries.
- The use of obsolete traditional methods in performing library and information operations.
- The existence of overlap and duplication in the performance of library and information operations and in the provision of services.
- The inadequate physical resources (i.e. building, furniture, equipment).
- The lack of communication between library and information units and the communities they serve.

This situation is the result of the following factors:

- Lack of a national information policy.
- Lack of library and information planning.
- Lack of cooperation and coordination.
- Lack of effective professional leadership.
- Shortage of professionally qualified manpower.
- Lack of standardization.
- Under-utilization.
- Inadequate publishing industry.

The above inadequacies in the library and information services in Iraq have, indeed, played a decisive role in preventing these services achieving the purposes for which they were established. As a result, these services play a minor part in the educational and socio-economic life of the country. It is certain that this state of affairs will continue unless certain measures be taken on a national scale to bring about a fundamental change in the provision of library and information services throughout the country. To bring such a fundamental change, the following guidelines are recommended:

- Establishment of a national information policy to ensure that all who need information can have access to it.
- Planning for the development of library and information services on the national level within the overall national development plans.
- Establishment of a National Library and Information Board to coordinate the establishment and development of library and information services in order to create a fully articulated national library and information service rather than a loose collection of services.

- Provision of adequate number of professional qualified manpower, based on a systematic manpower planning.
- Establishment and use of standards to: evaluate the efficiency of library and information services; promote their cooperation and coordination on the national, regional and international levels; and reach reasonable compatibility and uniformity in their operations and services.
- Centralizing administrative and processing work to maintain effective communication, cooperation and coordination among the libraries concerned; and to attain uniformity in the bibliographic description and organisation of materials.
- Application of modern information technology to ensure speed and accuracy in library and information procedures and services; foster better control on the rapid growth of and the increasing demand for information; and to enhance the country's participation in and benefit from international information systems which almost all of them are computer-based at present.
- Cooperation among library and information units on the national level to reach greater acquisition and control of information, and to create the foundation on which the country's participation in international cooperative ventures will be based.
- Stimulating information awareness and use by launching a national awareness campaign, revising the current educational system, providing user education programmes, adopting new circulation policies and open access system, and providing current awareness services.
- Promoting the publishing industry to secure a permanent supply of materials by ensuring the availability and coordinated functioning of all the publishing elements, i.e. manuscripts, editorial expertise, credit facilities, printing equipment, technical experience, efficient means of distribution, and a guaranteed market for the published work.

- The Iraqi Library Association should establish itself to play its rightful role in the general development of library and information services and to act as the organised voice of the profession. The Association should be accorded a legal status by legislation which provides for its official recognition by the Government and leads to power and authority that enable it to play its role effectively.
- Seeking the assistance of regional and international organisations such as Unesco, IFLA, FID, the ICA and the Arab League Educational, Cultural and Scientific Organisation (ALECSO). In so doing the country's needs and the possibilities to meet them through the assistance of these organisations should be identified first and then the need for assistance would be expressed to these organisations. It must be taken into account that these organisations act on requests from individual countries. They advise and recommend; the follow-up work rests in the hands of the particular country.

12.2 Conclusion

Development is a function of the availability, organisation and utilization of resources. Since Iraq is undergoing a process of development, the question of the availability, organisation and utilization of information as a resource is a pressing one. Hence, the inadequacies in the provision of library and information services should be recognised and certain measures be taken to develop these services. The guidelines proposed in this study constitute a promising step forward in the way to the development of library and information services. Although they look difficult, they are in no way not possible. Whether these guidelines are easy or difficult, they cannot and will not be pursued unless they are adopted by the National Government which shares a commitment to service and shoulders the entire responsibility for the

provision of library and information services in Iraq. The National Government of Iraq, which has been struggling for the development of the educational, social, cultural and economic sectors, will undoubtedly pay attention to the development of the library and information sector without which the development of the other sectors cannot be fully reached. Hence, it is hoped that the issues this study raises will encourage a discussion of the problem and which leads to action.

12.3 Recommendations for Further Studies

The present study raises a number of issues of interest which call for further studies. Such further studies are needed in the following aspects:

1. The factors that hamper the use of information as an essential component in the individual's and society development.
2. The factors hindering cooperation in library and information services and the means to reach an effective cooperative venture.
3. Publishing industry in Iraq and its impact on the development of library and information services.
4. An investigation into the effective means to develop a library-oriented educational programme.
5. An in-depth questioning of the present library and information legislation to evaluate its efficiency and impact on the development of libraries, documentation and archives.
6. Provision of public library service for the rural areas.
7. Standardization of library and information services.
8. Public and official attitudes towards the provision of library and information services.

9. Developing professional education and training programmes based on the analysis of the existing manpower resources.
10. A study aimed at formulating a national information policy for Iraq.
11. Experimental studies aimed at demonstrating the role of efficient library and information provision in decision-making.
12. An investigation of reading needs of the public and the extent of meeting these needs by the public libraries.
13. Appropriate information technology needed for the country and the resources required to bring this technology into efficient operation.
14. Participation of the country in international provision and exchange of information.

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APPENDIX 1: LIST OF PERSONS INTERVIEWED AND PLACES VISITED

I. NAMES OF PERSONS INTERVIEWED

Mr. S.R.Abdullatif

Director of Documentation and Studies, Ministry of Education

Mr.A.R.Abdulwahid

Director-General of the National Library

Mr.S.Y.AL-Adhami

Librarian,

Iraqi Academy Library

Mr.S.A.AL-Alousi

General-Director of the National Centre of Archives

Mr.A.AL-Ibadi

Sales Manager, the National House for Distributing and Advertising

Mr.J.M.AL-Juburi

Director of Libraries,

AL-Awqaf Ministry

Mrs.I.B.AL-Lous

Librarian,

AL-Mustansiriya University Library

Dr.S.H.AL-Nasiri

Director-General of Educational Planning, Ministry of Education

Mr.I.AL-Said

President,

Iraqi Library Association

Mr.M.Hamouk

Deputy Librarian, Mosul University Library

Mrs.Kamila

Reader Services, University of Technology Library

Mr.N.M.Kassim

Head of the Department of Librarianship

AL-Mustansiriya University

Mrs.Kazwini

Librarian, British Council Library

Mr.A.I.Kindilchi

Director-General of the Gulf States Information Documentation Centre
Baghdad

Dr.T.M.Madhloom

General-Director of the Regional Centre for Conservation of
Cultural Property in the Arab States
Baghdad

Mr.M.M.Malik

Dean, of the Arab Archivists Institute

Mrs.N.Y.Mansour

Librarian, Ministry of Planning Library

Dr.T.A.Oune

Librarian, Mosul University Library

Ten students in the Department of Librarianship,
AL-Mustansiriya University.

Mr.H.Tomashi

Librarian, Iraqi Museum Library

Miss Z.Ibrahim

Librarian, Baghdad University Library

II. PLACES VISITED

A. Library and Information Infrastructures

1. The National Library.
2. Baghdad University Library.
3. AL-Mustansirya University Library.
4. University of Technology Library.
5. Mosul University Library.
6. College of Sciences Library, Baghdad University.
7. College of Arts Library, Baghdad University.
8. College of Law and Politics Library, Baghdad University.
9. College of Medicine Library, Baghdad University.
10. Kadhmain Secondary School for Boys Library, Baghdad.
11. AL-Karkh Secondary School for Girls Library, Baghdad.
12. Kadhmain Primary School Library, Baghdad .
13. AL-Abbasiya Primary School Library, Baghdad.
14. Iraqi Academy Library.
15. Ministry of Planning Library.
16. The Educational Documentation Library, Ministry of Education.
17. Iraqi Museum Library.
18. The Centre for Educational and Psychological Research Library.
19. AL-Awqaf Public Library.
20. AL-Adhamiya Central Public Library.
21. Kadhmain Public Library.
22. The Arab Child Public Library, Baghdad.
23. British Council Library.

24. Teachers Union Library.
25. The Iraqi Scientific Documentation Centre.
26. The National Centre of Archives.
27. The Gulf States Information Documentation Centre.
28. United Nation Information Centre.

B. Education and Training Institutions

1. Department of Librarianship, AL-Mustansiriya University.
2. Arab Archivists Institute.

C. Government Departments and Institutions

1. Central Statistical Organisation, Ministry of Planning.
2. Directorate of School Libraries, Ministry of Education.
3. Department of Statistics, Ministry of Education.
4. Directorate of Libraries and Institutes, Ministry of Local Government.
5. Department of Statistics, Ministry of Culture and Information.
6. The Council for Scientific Research.
7. Department of Statistics, Foundation of Technical Institutes.
8. The National House for Distributing and Advertising.
9. Ministry of Youth.
10. Ministry of Higher Education and Scientific Research.
11. AL-Awqaf Ministry.
12. General-Directorate of Education, Baghdad, AL-Karkh.
13. Regional Centre for Conservation of Cultural Property in the Arab States.
14. The Arab Regional Branch of the International Council on Archives (ARBICA).

APPENDIX 2 : LIBRARY-INSTRUCTION CURRICULUM IN THE
 WAYNE-WESTLAND (MICHIGAN, U.S.)
COMMUNITY SCHOOL DISTRICT

Instructional plan - elementary : objective/task

Pre-School

1. Develop listening skills:
 - a. Stories read to children
 - b. Creative dramatics (puppetry, etc.).
2. Develop communication skills:
 - a. Story participation to elicit responses from children.
 - b. Encourage children to respond to acceptable speech patterns (complete sentences, etc.).
3. Develop appreciation of children's literature and awareness of materials available in school libraries.

Kindergarten

1. Introduction to library and library staff.
2. Care of books:
 - a. How to open
 - b. Clean hands, etc.
 - c. How to take care of - protect from weather, safe place, etc.
3. Appreciation and enjoyment of books:
 - a. Through story-telling.
 - b. Through story-reading and discussion.
 - c. Introduce types of literature: nursery rhymes
4. How to locate a book:
 - a. Introduce student to "Easy" section of library.
 - b. Instruct in use of, removing and replacing book on shelf.

5. How to check out a book:

- a. Give practice card to teacher to re-enforce skill in signing name.

6. Use of equipment:

- a. Tape player/headset/phonograph.

Grade 1

1. Review Kindergarten objectives

2. Parts of a book: Title/author/call number/label.

3. Location of books:

Easy/picture books

4. Book appreciation:

- a. Types of literature fantasy/fables/fairy tales world of make believe.

- b. Literature - read-to, story telling for enrichment.

5. Dictionary reference skills:

- a. Alphabetical arrangement of dictionary - ABC books.

6. Use of equipment:

- a. Teach proper care of hardware and software

Grade 2

1. Review parts of a book and include:

Call number, illustrator, page number, table of contents, body of book.

2. Meaning of call number on book.

3. Literature appreciation:

- a. Fiction (fantasy, make-believe)

- b. Non-fiction ('fact' books, biographies)

4. Special reference skills:

- a. Continue dictionary skills, alphabetizing.

Grade 3

1. Review parts of a book:

- a. Introduce: index, glossary, copyright date and its meaning.

2. Card catalogue:

- a. Location definition, purpose, and arrangement of trays.
- b. Identify 3 kinds of cards.
- c. Locate books by author, subject title.
- d. Use of guides in card catalogue trays.

3. Location of books and the Dewey Decimal System.

4. Literature appreciation: types of fiction.

5. Special reference materials - dictionary:

- a. Alphabetical arrangement of the dictionary (past the first letter).
- b. Division of dictionary.
- c. Locate word by using guide words.

6. Encyclopedia reference skills:

- a. Location and purpose of encyclopedia in the library.
- b. Arrangement and types of information found in encyclopedias.

7. Newspaper skills:

- a. Introduce students to parts of newspaper.

8. Review equipment care and usage.

Grade 4

1. Review parts of book:

- a. Introduce bibliography, foreward, appendix, dedication, etc.

2. Card catalogue:

Review concepts from Level 3, continue practice - re-enforce

3. Dewey Decimal System:

Review material introduced in Level 3

- a. Fiction and non-fiction location - ten main areas, biographies, non-fiction

4. Special reference materials:

- a. Atlases, road maps, gazetteer, legend, geographical dictionary
- b. Almanacs.

5. Dictionary reference skills:

- a. Review alphabet of dictionary, division, use of guide words
- b. Abridged and unabridged dictionaries and how to use them.

6. Encyclopedia reference skills:

Review of Level 3, re-enforce skill and further practice using materials.

7. Non-print media reference skills:

- a. Ability to obtain information from non-print media.

8. Use of equipment.

9. Appreciation of literature.

Grade 5

1. Review parts of a book

2. Introduce: Dedication/acknowledgement/editor/publishing company/
place of printing/list of illustrations/translate
author's synopsis.

3. Card catalogue: review, introduce use of cross-reference

4. Dewey Decimal System : review ten main divisions

- a. Introduce: arrangement of books within the Dewey System
(510/520/530, etc.)

5. Special reference materials:
 - a. Review atlases/maps/globes/almanacs.
 - b. Introduce biographical dictionary, books of authors, indexes, vertical files.
 - c. Selection of appropriate reference material.
6. Dictionary.
7. Encyclopedia.
8. Non-print reference-media skills:
 - a. Ability to obtain information and organize materials.
9. Use of equipment.
10. Appreciation of books (Newbery Award winners, etc.)

Grade 6

1. Review parts of a book.
2. Card catalogue review/re-enforce.
3. Dewey Decimal System: review/re-enforce.
4. Special reference materials skills: review
 - a. Introduce *National Geographic* index, poetry index, play index, etc.
 - b. Effective use of reference tools.
5. Dictionary skills.
6. Encyclopedia skills.
7. Non-print media reference skills.
8. Use of equipment.
9. Appreciation - fine arts.

Instructional plan - secondary

Research module - general outline

- A. Discuss concept of a search strategy - an organized plan for searching library resources for information on a particular topic.
- B. Handout: Search strategy flow chart.
- C. Discuss search terms. Examine sample questions to determine appropriate terms or key words. These questions should be relevant to the class subject.
- D. Locating articles:
 1. use for recent, up-to-date information on a topic.
 - a. discuss recency of information in articles and in books.
 2. discuss or review the concept of an index
 3. introduce or review the *Readers' Guide* - the index for articles in popular magazines.
 - a. parts of entries.
 - b. symbols and abbreviations.
 - c. practice in reading entries.
 - d. subject headings, x-references, sub-headings.
 - e. subject headings appropriate to the class subject.
 4. finding articles in un-indexed magazines - manual search.
 5. exercise in locating magazine articles relevant to class subject.
 6. introduce specialized indexes for advanced classes (in high school or
 7. introduce newspaper indexes (where applicable
- E. Locating books - general collection:
 1. for older 'established' information - usually more detailed and lengthy.
 2. review card catalogue - the 'index' or guide to books in the collection.
 - a. author/title/subject.
 - b. what is and is *not* in the catalogue.

3. introduce or review parts of the card - student should become familiar with all parts of the card in order to be able to determine presence of illustrations, bibliography, copyright date, publisher, etc.
4. introduce or review subject headings for card catalogue
 - a. handout and examine specific subject headings for class subject.
 - b. mention Sears.
5. review Dewey Decimal System
 - a. relate to finding reference books by subject.
6. practice in locating books in general collection using card catalogue. Titles should be relevant to class subject.
 - a. printed exercise.

F. Locating and using bibliographies:

1. general and subject.
2. value - road map.
3. in the book or article.
4. from the card.

G. Locating and using reference books:

1. for quick access to specific information: not usually for casual reading.
2. types of reference tools and kinds of information found in each
 - a. encyclopedias: general and subject.
 - b. dictionaries: general and subject.
 - c. atlases
 - d. indexes
 - e. almanacs
3. give examples of each especially relevant to the class subject.
4. presence of information on particular topics not indicated on the book's catalogue card.

5. review reference/research bibliography handout for the class subject.
 - a. briefly tell about and show each item and the kinds of information it contains.
6. review search terms.
7. question exercise - using only books on the reference bibliography
 - a. exercise should tie together concepts of Dewey classification, subject clarification, search terms, and knowledge of the tools.

Source: MARMAN, Ed. 'Design and development of a pre-school to adult library-instruction curriculum in the Wayne-Westland (Michigan) Community School District', in: *Proceedings of the Second International Conference on Library User Education*, Keble College Oxford, 7-10 July, 1981, edited by Peter Fox. Loughborough, INFUSE Publications, 1982, pp.29-44.