The Hashemite Kingdom of Jordan

National Center for Human Resources Development
(NCHRD)

NEEDS ASSESSMENT
OF EDUCATION
IN JORDAN

by

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Introduction

This study on the *"Needs Assessment of Education in Jordan"* has been prepared as part of an initiative undertaken by the "Center for Development Research (ZEF)" in Bonn University in four Arab Countries: Egypt, Jordan, Morocco, and Yemen, with the following two major objectives, as specified in the terms of reference:

- To evaluate the needs and requirements of education with respect to primary, secondary and university education as well as with respect to vocational training.

- To identify the appropriate areas and mechanisms for German development policy in these levels of education.

The identification and analysis of needs and priorities that are highlighted in the various sections of the study made use of many kinds of documents and sources of information, some of which are referred to in the study. Such documents and sources of information include:

- National Strategies, such as:
    o Human Resources Development (HRD) Strategy.
    o Education Strategy.
    o Pre-school Education Strategy.
    o Higher Education Strategy.

- Development Plans and Projects, such as:
    o Education Reform for the Knowledge Economy (ERfKE) Project.
    o Higher Education Development Project (HEDP).
    o Sustaining and Extending Technical and Vocational Education and Training (SETVET) Project.
    o Studies and research efforts undertaken by the various agencies, especially the "National Center for Human Resources Development (NCHRD)", within its mandate in monitoring and evaluation of HRD projects.

- International Reports and Publications.
- Proceedings of Conferences.
- Discussions and Resolutions of the concerned Boards and Councils.
- Media Reports.

Section one of the study gives a general background that explores the major relevant characteristics of both the education system and the labour market. The various levels and systems of education, including special and non-formal education as well as general examinations, are dealt with by sections two to ten. Section eleven deals specifically with the "Arab Human Development Report (AHDR)", highlighting different views about the conclusions of the report. Section Twelve, on the other hand, explores a number of general social, economic and educational issues in their relation to the education system. Finally, areas for German cooperation in the field of education are identified in section thirteen, building on the findings of the previous sections.

Section One

Background

Jordan is a small middle-income country that, due to limited natural resources, rely to a great extent on its human capital. In Jordan, it has long been realized that human resources are the major potential asset for the country. For many decades, and even since the emergence of the country as an independent state shortly after World War II, Jordan had to contend with many challenges that evolved from both regional and international conflicts and sources of unrest. As expected, the reflections on economic and social developments, including education and human resources development, were substantial.

Despite the resilience with which Jordan coped with regional crises and conflicts, the country had to face and is still facing many difficulties and challenges in its developmental efforts that influenced the growth of the education system. Nevertheless, education continued to receive a great and continuous support from the political leadership of the country, more than any other social issue.

According to the "Jordan Human Development Report of 2004", the Human Development Index (HDI) rose from 0.715 in 1997 to 0.747 in 2002. The improvement of the HDI was mostly due to improvements in education and life expectancy. According to the World Bank's Country Assistance Strategy for Jordan, the Jordanian achievements in human development during the past thirty years have been impressive. The economy showed a considerable degree of resilience and credibility by providing a reasonable business environment in terms of stability and openness.

The Jordanian Government have adopted recently a "National Social and Economic Action Plan (2004-2006), with a major objective to develop a sustainable socio-economic process and to reduce poverty and unemployment.

Box No. 1 shows major population data in 2003.

Box No.(1): Major Population Data in Jordan, 2003	
Population	5,480,000
Population Density (person/sq.km.)	61.7
Population under 15 years of age	36.2%
Natural population Growth Rate	2.4%
Population Growth Rate due to Immigration	0.4%
Population Growth Rate (2003)	2.8%
Population Growth Rate (1979-1994)	4.4%
Birth Rate per 1000 Inhabitants	29.0
Death Rate per 1000 Inhabitants	5.0
Life Expectancy (years)	71.5
Average Family Size (persons)	5.7
GDP per Capita ($)	1850
Source: Department of Statistics, Jordan in Figures, Issue No.6,2003	

The high population growth rate of 4.4% during the period 1979-1994 compared with the present rate of 2.8% was mainly due to high immigration rates during that period.

The following is a summary of the main features of the Jordanian socioeconomic structure, compiled mainly from a World Bank-Islamic Development Bank Evaluation document titled "Jordan: Supporting stable Development in a Changing Region":

- Jordan is assessed by international standards as a lower-middle-income country.
- Despite its small size and modest GDP, Jordan figures prominently in the geo-politics of the Middle East.
- Only 6% of the land is arable.
- The availability of water is among the lowest in the world. Efficient management of water resources is a vital need.
- There exist significant mineral resources, especially phosphate and potash.
- Half of Jordan's exports, and a quarter of its imports, are with its neighbours. Consequently, frequent regional turmoil and conflicts had great diverse effects on the economy.
- During the decade of the 1990's of the last century, economic growth could hardly keep in pace with the rate of population growth, resulting in stagnant real per capita incomes.
- The incidence of poverty increased during the last decade of the twentieth century from 3% to 12% and stayed at that high rate, rendering the alleviation of poverty a major challenge.
- Education and health indicators in Jordan compare favourably with those of other countries of the same, and even higher, income levels.
- One third of the Jordanian labour force works outside Jordan, mainly in the Gulf Countries.
- Remittances from Jordanians working outside are significant, although unstable. Such remittances account for 20%-25% of the GDP.
- Unemployment rates, which remained stable around 14% during the past few years, is a major challenge of the economy.

Human Resources: The Demand Side

The proper match between education and human resources development on the one hand, and employment and socioeconomic development on the other, has always been one of the challenges and requirements that characterise education systems. Box No. 2 shows the major characteristics of the labour market and labour force that are relevant to education.

Unemployment remains one of the major social and economic challenges in Jordan. After about a decade that spanned the period from the mid-seventies to the mid-eighties of the twentieth century, when unemployment rates were relatively low, such rates started to rise and settle around 13%-15% since the beginning of the twenty-first century. Unemployment characteristics at present include the following:

- The highest unemployment rate is among young people of the age group 15-19. This group represents drop-outs from basic education as well as graduates of the various streams of secondary education.

- There has been a relative rise in unemployment among graduates of secondary education level and below, and a drop in unemployment among graduates of university and intermediate (community college) level. This might be due to the rising needs for a labour force of a higher educational level, spurred by technological developments, especially in the services sector that predominates the economy.

- Unemployment rates vary considerably from on region to another, the lowest being in the middle region that includes Amman, the Capital, and the highest being in the southern region.

- Unemployment rates among females are at present about 50% higher than among males, despite the fact that the drop in female unemployment during the past decade has been considerably higher than the drop in male unemployment.

These unemployment characteristics indicate that any efforts for the alleviation of unemployment, whether on the supply side of human resources through educational policies and programmes, or on the demand side of HR`s through economic activities and job creating investments, should emphasize more the need to cater for three groups:
- young people
- females
- the labour force in the southern region of the country

Box No.(2): Major Characteristics of the Labour Market and Labour Force in Jordan				
I. Jordanian Labour Force, Age 15+ Years by Educational Level and Gender, 2004				
Educational Level (Years of Schooling)	**% Jordanian Labour Force**			
	Employed Male	**Employed Female**	**Employed Total**	**Unemployed Total**
Illiterate	3	2.4	2.9	2.0
Primary (<6 years)	17.9	3.3	15.9	
Lower Secondary (7-10 years)	38.2	13.3	34.9	58.6
Secondary (11-12 years)	15.7	12.3	15.3	10.0
Intermediate (13-15 years)	9.4	26.4	11.7	11.0
University (16+ years)	15.9	42.2	19.4	18.4
II. Non Jordanian Labour (2003)				
Estimated Number of Non-Jordanian Labour			250,000 (20% of Labour Force)	
Working in Agriculture			30%	
Working in Industry			22%	
Working in Construction			15%	
Working in Services			22%	
Working in Hotels & Hospitality			11%	
III. General Characteristics (2003)				
Number of Jordanians in the Labour Force			1,175,109	
■ % of the age group 15-19			47.8%	
■ % of the age group 30-39			26.5%	
■ % of the age group 40+			25.7%	
Female Participation in the Labour Force			13.8%	
Unemployment Rate			13.9%	
■ Among Males			13.0%	
■ Among Females			19.3%	
Annual Growth of the Labour Force			4%	
Source: (1) Department of Statistics, Employment and Unemployment Survey (May 2004), Principal Report, 2004, pp 72-74,143 (2) National Center for Human Resources Development (Al-Manar Project), Human Resources Biannual Report, July 2004, pp 5,6,10 (3) Ministry of Labour, Annual Report, 2003, p33.				

Human Resources: The Supply Side

The education system in Jordan consists of the following stages:

(i) Pre-school education for two years for the age groups 4-6.

(ii) Basic compulsory education for ten years for the age groups 6-16.

(iii) Secondary education, academic and vocational, for two years for the age groups 16-18.

(iv) Intermediate university education in community colleges and similar institutions for 1-3 years after secondary education.

(v) University education with 1st, 2nd and 3rd degree levels.

The following diagram No. (1) Shows the structure of the education system and its relation to the occupational levels in the labour market, as defined by the "Arab Occupational Classification System".
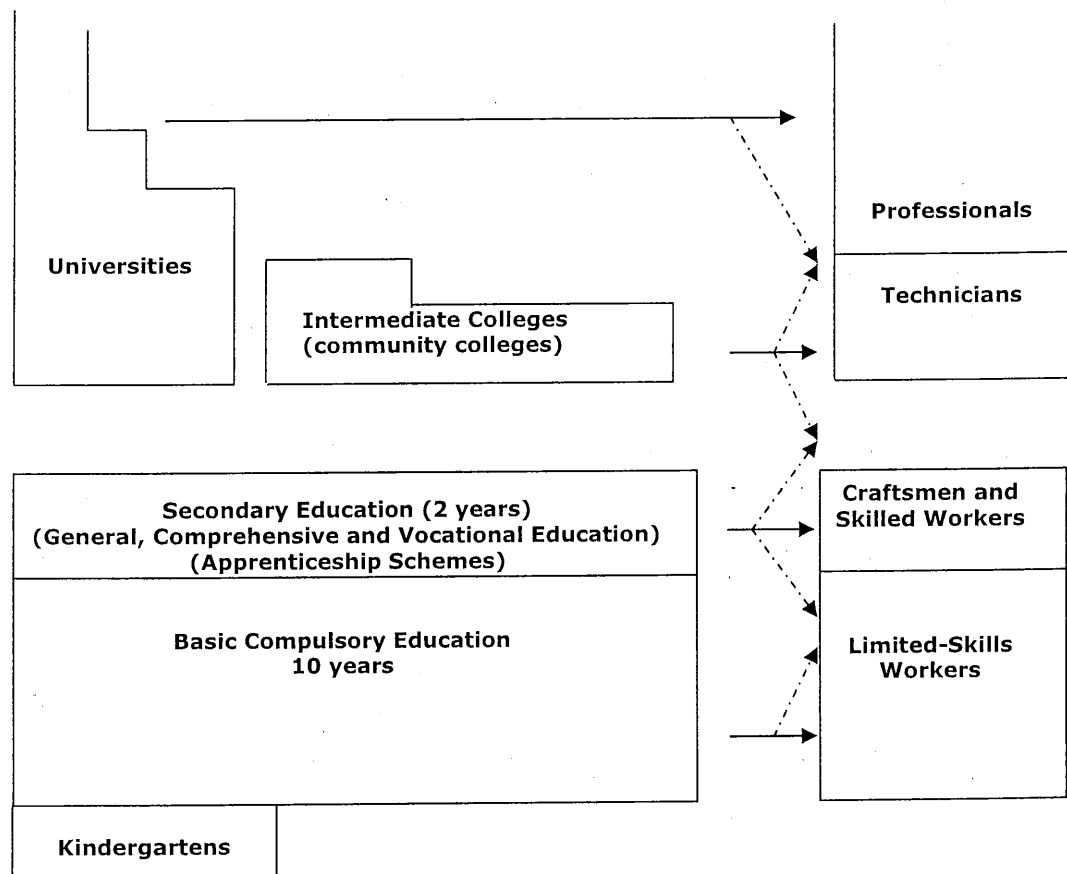
Diagram No. (1): Educational and Occupational Levels

Jordan scored many achievements in the field of education during the past few decades. Universalization of education that resulted in the rise of literacy rate to 90.2% in 2004 has been one of the major achievements. Education is in the forefront of priorities in the social demand agenda, resulting in relatively high participation rates in the various educational cycles. 30.2% of the population are enrolled in formal educational institutions. All this was reflected in the educational level of the population and hence in the labour force as shown in box No. (3).

Box No. (3):	Distribution of Jordanians 15 years and above according to the Educational Level, 2003
Educational Level	**%**
Illiterate	9.9
Less than full Secondary Education	54.8
Full Secondary Education	17.8
Intermediate University Education	8.1
University Education	9.4
Source: Department of Statistics, Jordan in Figures, Issue No. 6,2003	

Box No. (4), on the other hand, shows some of the major statistical data and information about pre-university education system in Jordan in 2002. Details of such data and information in the various educational cycles, including tertiary (higher) education will be discussed later in this study.

Box No. (4):	Pre-University Education Major Data and Information, 2001/2002
I. Literacy Rates (2004)	
for age groups 15+	90.2%
for age groups 15-40	>96%
II. Schools (Including Kindergartens)	
Total Number of Schools	5048
Ministry of Education Schools	58.4%
Other government schools	0.8%
UNRWA Schools	3.8%
Private Schools	37.0%
Male-only Schools	24.5%
Female-only Schools	15.6%
Co-educational Schools	59.9%
II. Students (Including Kindergartens)	
Total number of students	1,459,208
Ministry of Education Students	70.6%
Other government students	1.4%
UNRWA students	9.6%
Private schools students	18.6%
IV. Teachers (Including Kindergartens)	
Total number of teachers	76296
Ministry of Education teachers	71.6%
Other government teachers	1.9%
UNRWA teachers	5.5%
Private schools teachers	21.0%
Female teachers	63.2%
Student-teacher ratio	19.1:1
Source: (1) *Ministry of Education, The Educational Statistical Report, 2001/2002, pp.24-36.*	
(2) *For item I: Department of Statistics, Employment and Unemployment Survey (May 2004), Principal Report, 2004*	

Section Two

Pre-school Education

Introduction

Although pre-school education in kindergartens (KG`s) and similar institutions in Jordan is as old as the education system itself, it was nevertheless first recognized as a formal, although non-compulsory, educational cycle, targeting children of the age group 4-6, by the Education Law of 1988. In spite of that, translating such a legislative tool into concrete action was partial and the actual development of pre-school education was delayed for more than a decade because of other educational priorities and lack of resources.

Many factors and developments have contributed during the past few years to focus on pre-school education and to draw more attention to its developmental needs. Such factors included:

- The need to activate the provisions of the Education Law referred to above, which were emphasized also in the Education Law of 1994.
- The emergence of many NGO`s that focus on the needs and welfare of children of all age-groups, including the age-group under consideration. Of particular importance in this respect, is the establishment in 2001 of the "National Council for Family Affairs" which is chaired by HM the Queen.
- The mounting activities of local, regional and international agencies and organisations involved into such movements as the rights of the child, the rights of women, family affairs, etc.
- The expanding popular support to the concept of "Early Childhood Development (ECD)", as emphasized by educationists, psychologists and sociologists.

According to the Education Law, The MOE is the public agency that is responsible for pre-school education in kindergartens, both governmental and non-governmental. MOE responsibilities in this respect include the licensing of non-government KG`s, and the general supervision of pre-school education institutions to ensure quality and standards, in addition to leading the developmental efforts that target pre-school education. On the NGO side, the "National Council for Family Affairs (NCFA)", has the child as one of its main concerns and target beneficiaries. Many other NGO`s are involved, mainly on the implementation side of ECD. Plans for a major development in the field of ECD in general, and pre-school education in particular, with noticeable achievements, have already been initiated, as shown hereunder.

Status

Box No. (5) shows the major data and information about pre-school education in Jordan for the scholastic year 2003/2004, compared with the year 2000/2001.

Box No. (5): Preschool Education in Jordan, 2003/2004 Compared with the Year 2000/2001						
Sector	No. of KG`s	%	No. of KG Children	%	No. of KG Teachers	%
Private (for profit)	1016	71	70350	77	3257	79
NGO	247	17	15550	18	672	16
Government	172	12	4077	5	194	5
Total 2003/2004	**1435**	**100**	**89977**	**100**	**4123**	**100**
Total 2000/2001	**1294**		**85700**		**3886**	
Source: *Manar Shukri, Report on the Quantitative Analysis for the Data Base of kindergartens in Jordan (2003/2004), National Council for Family Affairs, 2004 (Arabic).*						

The following are the major outlines of the present structure and characteristics of pre-school education in Jordan:

1. Preschool education institutions, i.e. kindergartens, are mostly owned and run by non-government agencies that incorporate private (for profit), and not-for-profit providers, including voluntary and philanthropic ones. Public (government) kindergartens were, until recently, not existent. In 2001, the Ministry of Education (MOE) started an ambitious plan to establish kindergartens that are attached to existing primary schools, mostly in areas where such services and facilities were lacking. At present 12% of the number of kindergartens, accommodating 5% of the number of KG children and teachers, are owned and run by the Ministry of Education. The Ministry's plans cater for a major expansion in this field through the new educational reform plan, "Educational Reform for the Knowledge Economy (ERfKE)", the first phase of which is expected to span the period 2004-2008.
It can be said that, until recently, preschool education has been mainly an urban middle and upper class phenomenon. The recent involvement of the MOE is causing some changes to the situation by introducing free pre-school education services in rural and remote areas. The fees charged by for-profit private pre-school educational institutions vary considerably, depending upon the location and standard of facilities. Annual fees that range between 1000 and 2000 US$ are common.

2. Preschool education accommodates only one third (33.4%) of the relevant age group in the scholastic year 2003/2004, compared to 29.4% for the year 2000/2001. About two-thirds of KG children are in the second year of pre-school education, i.e. KG2, and one third in KG1. The rate of participation is very slightly lower for female children than for male children. According to the educational reform plans in ERfKE, the rate of participation in KG`s has to be increased considerably.
The geographical distribution of pre-school facilities and services is not even or balanced, as some regions are better served than others.

3. Pre-school education falls under the umbrella of the Ministry of Education. The Ministry undertakes the responsibilities of licensing non-government KG`s. The criteria that are at present utilized for licensing purposes lack comprehensiveness, approved standards and thoroughness.

4. According to the Education Law of 1988, care-taker teachers and principals of KG`s should possess university-level qualifications in relevant fields of study, in addition to the necessary pedagogical abilities. Although some noticeable progress has been achieved in this respect during the past few years, yet, in 2003/2004, less than one-fifth, of such teachers possess a university qualification, and only 25% of these hold such qualification in an ECD field. The majority of care-taker teachers in KG`s, or 80%, hold an intermediate diploma acquired from a Community College or similar institution. Of these, about 60% hold such diploma in an ECD field of study.
In-service training, within the concept of life-long learning for KG staff, is an activity that does not at present receive the necessary attention in the pre-school education sector, thus reflecting negatively on the quality of services.
Box No. 6 shows the distribution of KG care-taker teachers in both government and non-government sectors, according to the level of education for the scholastic year 2003/2004, compared to the year 2000/2001.

Box No. (6): KG Care-taker Teachers` Qualifications, 2003/2004 Compared with the Year 2000/2001			
Scholastic Year	University	Intermediate Diploma	Secondary Education
2003/2004	17.5	80	2.5
2000/2001	7.1	89.6	3.3

5. The MOE provides support and incentives for not-for-profit organizations, especially NGO`s that avail their services in the field of pre-school education in underprivileged locations, to enable them expand and improve their services. Such support is provided through the secondment of care-taker teachers to such NGO`s, and funding their salaries.

6. Until recently, local educational material and teacher guides to cater for the curricular, developmental and recreational needs and activities of KG children were lacking. Work has recently been completed in this respect, and started to be utilized in KG`s. Such efforts were joinly undertaken by the MOE and the National Council for Family Affairs. Such educational material and guides are mainly accessible in the Arabic language. A small English component is incorporated in pre-school education. The size of this component varies from one kindergarten to another.

7. One of the weaknesses of the system of pre-school education is concerned with the quantitative and qualitative aspects of the existing supervisory services. The professionals who are entrusted by the MOE to provide such services, i.e. the supervisors or inspectors, are not fully qualified or adequately trained to undertake the supervisory function effectively to help KG care-taker teachers and administrators maintain standards and provide high quality services.

8. University disciplines and programmes for graduate and post-graduate studies do exist in ECD related fields. Nevertheless, such programmes are supply driven to a great extent, without enough relevance to the needs of work sectors that recruit the graduates, and in particular pre-school education and nurseries.

9. Substantial efforts have so far been exerted to establish a vision and strategic approach to ECD in general, and pre-school education in particular, and to plan for the development of this sector on the short and medium terms. Such efforts were manifested by such major documents as:

    i. "Early Childhood Development Strategy", that was adopted in 2001, with a five-year plan of action for the implementation of the strategy. The strategy and plan of action catered for all aspects of ECD, including pre-school education.

    ii. "Education Reform for the Knowledge Economy (ERfKE)" which comprised a five-year development plan (2004-2008), supported by many regional and international agencies including the World Bank. The development plan included a major component for the expansion and development of pre-school education services and facilities.

    iii. "ECD Indicators and Standards" that have been established with the help of UNICEF and the World Bank to identify the performance standards of children of the age groups zero- nine in such domains as the cognitive, social, emotional, motor, physical and health domains.

    iv. "National Plan for Childhood" that was adopted in 2004, catering for the various stages of child development up till the age of eighteen.

10. Parents are in general more actively involved in the pre-school education of their children than in any other cycle of education. Nevertheless, such involvement varies considerably in its quality, size and structure from one institution to another.

Needs and Priorities

Following from the above, the national needs and priorities of pre-school education in Jordan can be summarised as follows:

1. to provide and sustain the necessary financial resources for the ongoing and future expansion of pre-school services and facilities in the MOE. Such expansion would bridge existing gaps and complement the role of non-government agencies on the one hand, and would cater for the rising size of KG children due to population growth that amounts to 2.8% on the other.

2. to adopt and apply suitable and up-to-date criteria and indicators for the establishment and licensing of KG`s. Such criteria would define the type and specifications of the relevant facilities and services, space, built-up areas, playgrounds, furniture, recreational facilities, etc. Efforts have already been initiated to cater for this need.

3. to monitor, field-test and assess the new package of educational material and teacher guides that started to be utilized in KG`s. Such evaluation and validation effort, which can span a period of two years, would help through its outcomes and feedback to further review and upgrade the quality of the material concerned.

4. to assess the economic as well as the social and educational outcomes and impact of the declared intention to universalize pre-school education. One particular aspect that needs assessment concerns the socioeconomic feasibility of back-extending basic compulsory education to cover the age group 5-16, instead of the existing system that covers the age group 6-16.

   One important indicator in this respect is the child-teacher ratio in KG`s, which is reflected in the amount of funding needed to cater for staff salaries that constitute usually the major item in the running expenses. Although the recommended ratio is 12:1, the present ratio in Jordan is about 22:1. Nevertheless similar high ratios can be found in rich and industrialized countries.

5. (i) to review and assess university and community college ECD disciplines and programmes to ensure a balanced supply/demand driven system of HRD that caters for the employment needs of pres-school education and nurseries. This includes post-graduate studies for the preparation of highly specialised professionals and researchers in this field.

   (ii) to develop and reform university and community college ECD disciplines and programmes, building on the results of the assessment referred to in (i) above.

6. to develop an efficient, effective and sustainable system for human resources development (HRD), through an adequate in-service training system, within the concept of life-long education for pre-school education staff, including care-taker teachers, administrators, supervisors (inspectors) and trainers of trainers. The major needs in this respect include the development of:

   i. packages or modules of in-service training material, complying with world standards.

   ii. an effective testing and certification system for in-service training, including the necessary incentives.

   iii. a system for the identification of training needs of the various groups of the target beneficiaries.

   iv. adequate governance of in-service training activities, through the establishment and institutionalisation of the in-service training function on the central (Ministry) and local (field directorates of education) levels.

Section Three

Basic Education

Introduction

Basic education is compulsory and free in government schools. Until 1987, basic education covered the first nine years of schooling catering for the age groups 6-15. The Education Law of 1988 extended basic compulsory education to ten years, catering for the age groups 6-16. The degree of importance given to the universalisation of education in Jordan can be seen from the fact that compulsory and free education for nine years has been enforced by the Education Law since 1964 until it was extended to ten years in 1988. This resulted in relatively high rates of literacy, reaching more than 90% in 2004.

Four major controlling authorities are involved in basic education. These are the Ministry of Education (MOE), Other Government Agencies, United Nations Relief and Welfare Association for Palestinian Refugees (UNRWA), and the Private Sector.

Status

Box No. (7) shows some of the major statistical data and information about basic education for the academic year 2001/2002.

The following are the major outlines of the present structure and characteristics of basic education in Jordan.

1. the Quantitative Dimension
   Despite the noticeable achievements that have been realized in the universalisation of basic compulsory education for the age groups 6-16 resulting in more than 90% of this age group being in schools, the concept of compulsory education is in practice applied to mean "compulsory to the government" and not "compulsory to the learner or parents". This is clear from the fact that the education law does not refer to any legal action against parents whose children drop-out from school before finishing ten years of basic education.

2. Gender
   Female participation in basic education is slightly higher than male participation. This is due to slightly higher drop-out ratios among males than among females for various social and economic reasons. In general, the gender issue has for some time been successfully taken care of during the past three decades. This is clear from the literacy rates among the age groups 15-40 which stand at about 96% for both males and females.
   Another aspect of the gender issue in basic education concerns those involved in the teaching profession, where female teachers constitute 63% of the total number of basic education teachers.

3. Curricula
   Curricula and textbooks for the ten years of basic education are non-differentiated and centralized. Some flexibility is availed to private schools to add some educational material while adhering to the national syllabus. In addition to the traditional subjects in the fields of humanities, social sciences, mathematics, and natural sciences, basic education curricula incorporate such subjects as prevocational education, arts, music, ICT, and physical education. English language is taught starting from grade one. Some private

schools teach French as well. Very few schools teach other languages like
German, Caucasian, etc.

Box No. (7): Basic Education Major Data and Information, 2001/2002	
I. Schools of Basic Education	
Total number of basic schools	2718
■schools for males only	27%
■schools for females only	14%
■coeducational schools	59%
■MOE Schools	1939
■Other Gov. Schools	7
■UNRWA Schools	190
■Private Schools	582
■Double Shift Schools	445
■Rented Schools	1071
II. Students of Basic Education	
Total number of basic education students	1,199,162
■Male students	51.5%
■Female students	48.5%
■Students in MOE schools	74%
■Students in other gov. schools	1%
■Students in UNRWA schools	11%
■Students in private schools	14%
■Students in double shift schools	22%
■Students in rented schools	19%
■Students in rented double shift schools	4%
III. Teachers of Basic Education	
Total number of basic education teachers	59906
■ Male teachers	37%
■ Female teachers	63%
■ Teachers in MOE schools	74%
■ Teachers in other gov. schools	1%
■ Teachers in UNRWA schools	7%
■ Teachers in private schools	18%
IV. Qualitative Indicators in Basic Education	
Repetition rates in grades 1-5	0.4%
Repetition rates in grades 6-10	1.2%
Repetition rates in grades 1-10	0.8%
Student/classroom ratio	29.2
■ In urban schools	32.3
■ In rural schools	24.9
Student/teacher ratio	20.0
■ In urban schools	22.6
■ In rural schools	16.6
Teachers` Qualifications	
■ University graduates	62%
■ Community college graduates	37%
■ Secondary education graduates	<1%
Gross Enrolment Ratio	94%
■ For males	93.9%
■ For females	94.2%
Drop-out Ratio	0.48%
■ For males	0.55%
■ For females	0.41%
Source: *Ministry of Education, The Educational Statistical Report, 2001/2002, p155-209*	

4. Links with Secondary Education
    As no educational filters in the form of national examinations exist all through pre-university education, except after the end of secondary education , the transfer from basic to secondary education is open and accessible to all students who are testified successful in grade ten by their schools. A combination of the students` performance in grades 8,9 and 10, in addition to his/her wishes decides the stream and type of secondary education he/she joins. As a consequence, the great majority of students who finish grade ten, move on to one type of secondary education or the other.

5. Teachers
    A turning point in teacher qualifications for basic education took place in 1988 when the new education law then stated that a university degree in addition to pedagogical certification are pre-requisites for the teaching profession. Before then, a community college diploma was acceptable for teaching in the nine-year basic education cycle. In-service certification programmes as well as restricting new recruitment mainly to university graduates resulted in the majority (63%) of basic education teachers now holding a university degree.
    In-service training for teachers is one of the major activities undertaken by the MOE and other concerned authorities. Thousands of teachers join in-service training courses annually to upgrade their skills in such fields as teaching methodologies, ICT, etc.

6. School Buildings
    Due to the relatively high growth in student population that amounts to about 2.5% annually, resulting from similar rates of population growth, facilities for accommodating the nett entrants to schools have to keep up with such growth. As the necessary funding has not always been enough to meet the demand, inadequate rented facilities and double shifting became a chronic challenge of the education system. Box No. (7) shows that in 2002, rented and double shift schools constituted 39% and 16% respectively of the total number of basic education schools, accommodating 19% and 22% respectively of the total number of basic education students. In the MOE only, rented and double shift schools constituted 35% and 14% respectively, accommodating 16% and 16% respectively of the total number of basic education students in 2002.

7. The Qualitative Dimension
    The noticeable progress realised by Jordan in the field of basic education during the past few decades on the quantitative side has yet to be matched on the qualitative side. The major weaknesses that reflect negatively on the quality of basic education include:
    - a relatively high percentage of inadequate rented school buildings.
    - a relatively high percentage of schools operating on a double shift system.
    - inadequate teaching methodologies and learner evaluation techniques.
    - inadequate supervisory services that are provided mainly by the local directorates of education, and that emphasize the inspection function at the expense of the support and developmental functions.
    - the modest social status of the teaching profession.
    - Weak guidance and counseling services.

8. Governance
    Four major controlling authorities are involved in basic education. These are the Ministry of Education (MOE), Other Government Agencies, the United Nations Relief and Welfare Association for Palestinian Refugees (UNRWA), and the Private Sector. MOE Schools are established, run, supervised and funded by the Ministry within a centralized system with operational functions undertaken by more than thirty local directorates of education in the various

districts of the country. The major functions undertaken at the central level by the Ministry headquarters include:

- curricula and textbooks.
- appointment of school teachers and administrators.
- allocation of funds.
- legislative tools, including laws, bye-laws and regulations.
- transfer of teachers and staff between directorates of education.
- holding the national examination.
- some in-service training services.

On the other hand, the major functions undertaken at the local level by the directorates of education include:

- distribution of teachers and administrators, who were appointed by the Ministry, to the various schools.
- Transfer of teachers and staff from one location to another within the directorate of education.
- Supervision of schools through a field service carried out by school supervisors (inspectors).
- Dispensing funds allocated by the Ministry, including wages and operational costs.
- A great part of the in-service training of teachers.

9. Parent's Participation

According to regulations, every school should have a Parents-Teachers Council to build a bridge between the school and the home. Nevertheless, the effectiveness of such councils varies considerably from one school to another.

Needs and Priorities

From the above, the national needs and priorities of basic education in Jordan can be summarized as follows:

- to adopt a ten-year comprehensive plan to rid the education system from inadequate rented school buildings, and replace such buildings with appropriate facilities. Also to rid the education system from double shifting. This requires securing the necessary funds for this purpose.

- to accelerate the in-service programmes for upgrading the qualifications of teachers with community college diplomas to university level with the necessary additional pedagogical certification, in cooperation with Jordanian universities.

- to amend the Education Law with the objective of legally activating the concept of compulsory education for the age groups 6-16 by stating specific legal actions against parents whose children drop-out from schools before finishing the ten years of basic education.

- to activate and upgrade the standards for the applied disciplines in basic education that include prevocational education, arts education, music, ICT and physical education; and availing the necessary adequate inputs and processes for this purpose.

- to adopt a comprehensive and sustainable plan for the in-service training of teachers on teaching methodologies and classroom management to highlight such elements in the teaching-learning process as participation, interaction, critical thinking, and other higher mental skills.

- to assess critically the existing governance system for basic education, with the objective of diluting the centralised nature of the system, and aiming at the empowerment of the school and local authorities.

- to activate and upgrade the standards of the supervisory services provided to schools locally and centrally, with the objective of emphasizing the supportive

and developmental role of supervisors at the expense of the inspection role. This would require well-structured in-service training programmes and supervisory models that should be subject to follow-up and evaluation.

- To improve guidance and counseling services, especially in the last years of basic education, to help learners assess their abilities and choose the appropriate educational and vocational paths in secondary education.

- To review the streaming criteria and processes that guide graduates of basic education to the various academic and vocational streams of secondary education, with the objective of giving more weight to actual abilities and inclinations of learners at the expense of their pure academic performance.

Section Four

Academic: Secondary Education

Introduction

Secondary education, with its academic and vocational streams, is not compulsory although free in government schools. Since 1987, when basic compulsory education was extended from nine to ten years, secondary education was reduced from three to two years, to cater for the age groups 16-18.

Although secondary education is not compulsory, and because it is free and no educational filters or bottlenecks exist in basic education, the majority of students who complete the ten years of basic education carry on with one of the academic or vocational streams of secondary education.

Unlike basic education, only three controlling authorities are involved in academic secondary education. These are the MOE, other Government Agencies, and the Private Sector. UNRWA is not involved in such education.

Status

Box No. (8) shows some of the major statistical data and information about academic secondary education for the academic year 2001/2002.

The following are the major outlines of the present structure and characteristics of academic secondary education in Jordan:

1. The Quantitative Dimension
    The gross enrolment ratio in secondary education which amounts to 75.6% as shown in box No. 8, compares favorably with many countries with higher income levels. This is a result of high social demand on the one hand, and the open nature of the education system as mentioned earlier on the other. If the legislative tool is tightened regarding the concept of compulsory basic education, enrolment ratios in secondary education are expected to rise considerably.

2. Gender
    As in basic education, the gender issue has for some time been successfully taken care of in Jordan in academic secondary education where female participation is slightly higher than male participation. This applies also to the teaching profession where female teachers constitute 54% of the total number of teachers in such education.

3. Curricula
    Three main streams exist in academic secondary education. These are literary, scientific and theological. The distribution of students among the three streams is 63%, 36% and 1% respectively. A semester credit-hour system is applied in academic secondary education. Streams share a common core of general subjects, while every stream has a group of relevant subjects. Usually, a student has to take 10-12 subjects with no electives, resulting in pressures due to the big academic load.
    Curricula and textbooks for any stream are non-differentiated and centralized. Private schools can get permission from the MOE to teach non-Jordanian systems of secondary education, such as the International Baccalaureate (IB), the British International General Certificate of Secondary Education (IGCSE), or the American SAT.

Box No. (8): Academic Secondary Education Major Data and Information, 2001/2002	
I. Schools of Academic Secondary Education	
Total Number of Academic Secondary schools	1124
▪ schools for males only	42%
▪ schools for females only	34%
▪ coeducational schools	24%
▪ MOE Schools	963
▪ Other Government Schools	18
▪ Private Schools	143
▪ Double Shift Schools	40
▪ Rented Schools	97
II. Students of Academic Secondary Education	
Total Number of Academic Secondary Education Students	131065
▪ Male students	45%
▪ Female students	55%
▪ Students in MOE schools	87%
▪ Students in other government schools	1%
▪ Students in private schools	12%
▪ Students in double shift schools	5%
▪ Students in rented schools	4%
▪ Students in rented double shift schools	0.1%
III. Teachers of Academic Secondary Education	
Total Number of Academic Secondary Education Teachers	8267
▪ Male teachers	46%
▪ Female teachers	54%
▪ Teachers in MOE schools	81%
▪ Teachers in other government schools	2%
▪ Teachers in private schools	17%
IV. Qualitative Indicators in Academic Secondary Education	
Repetition rates in academic secondary education	0.4%
Student/classroom ratio	26.2
▪ In urban schools	29.1
▪ In rural schools	22.2
Student/teacher ratio	15.9
▪ In urban schools	16.1
▪ In rural schools	15.4
Teachers' Qualifications	
▪ University graduates	97%
▪ Community college graduates	3%
Gross Enrolment Ratio*	75.6%
▪ For males	75.6%
▪ For females	75.7%
Drop-out Ratio	0.80%
▪ For males	0.94%
▪ For females	0.67%
* This applies to secondary education in general, academic and vocational	

Source: Ministry of Education, The Educational Statistical Report, 2001/2002, p.253-284

4. Links with Higher Education
   To join higher education institutions, including community colleges and universities, graduates of academic secondary education should pass a national examination, the General Secondary education Certificate Examination (GSECE). A separate section in this study explores the various issues related to this national examination.

5. Teachers
   The great majority of academic secondary education teachers, i.e. 97%, are university graduates in the relevant disciplines. Nevertheless, a good proportion of them lack the necessary pedagogical qualifications, resulting in some weaknesses in teaching methodologies and class management.
   As with basic education teachers, in-service training for academic secondary education teachers is a well-established activity in the MOE.

6. School Buildings
   The problem of rented and double shift schools does not exist in academic secondary education as is the case in basic education. Rented and double shift schools accommodate only 4% and 5% respectively of the total number of students in academic secondary education. In general, educational facilities, such as laboratories, libraries, etc. are reasonably adequate in these schools.

7. The Qualitative Dimension
   Some of the qualitative weaknesses in basic education characterize academic secondary education as well. Such weaknesses include:
   - inadequate teaching methodologies and learner evaluation techniques.
   - inadequate supervisory services that emphasize the inspection function, rather than the support and developmental function.
   - the modest social status of the teaching profession.
   - weak guidance and counseling services, reflecting negatively on streaming criteria and procedures.

8. Governance

   The following diagram No. (2) shows the structure of the governance system for pre-university education, excluding VET which will be referred to later.
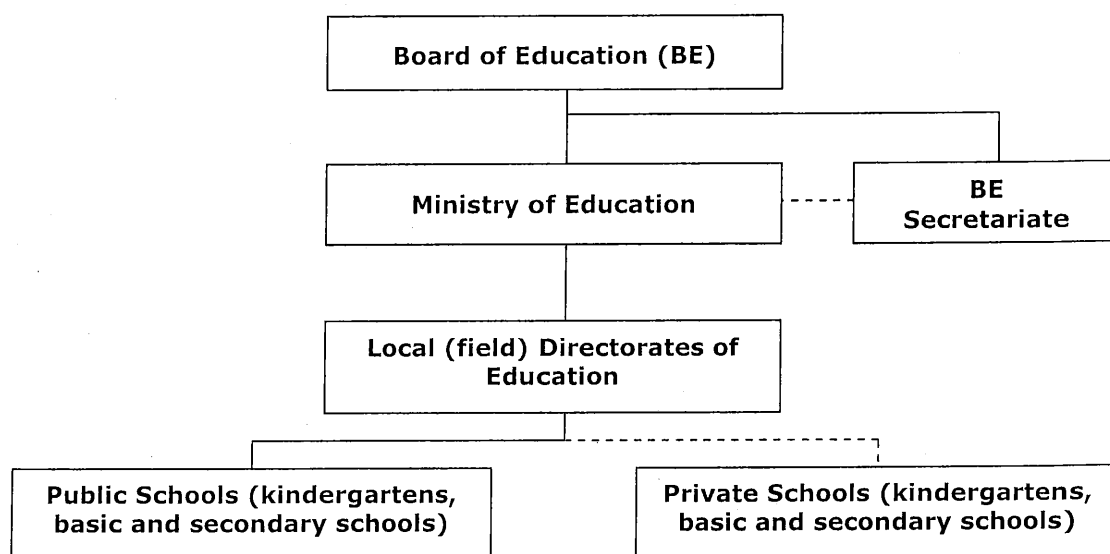

   Diagram (2): Governance Structure of Pre-university Education

The mandate and functions of the Ministry of Education (headquarters) and local (field) directorates of education are similar to those in basic education. The status of parents' participation in secondary education is similar to that in basic education, as referred to earlier.

Needs and Priorities

Following from the above, the national needs and priorities of academic secondary education in Jordan can be summarized as follows:

- to review the structure of the academic load on students, with the objective of reducing academic burdens, promoting flexibility, and introducing an elective system.

- to adopt a comprehensive and sustainable plan for the in-service training of teachers on teaching methodologies and classroom management to highlight such elements in the teaching-learning process as participation, interaction, critical thinking, and other higher mental skills.

- to assess critically the existing governance system for secondary education, with the objective of diluting the centralized nature of the system, and aiming at the empowerment of the school and local authorities.

- other supporting actions in this respect which apply to basic education as well include the vitalisation of parents-teachers councils, and the activation of the school fund, which is a fund that is established by the MOE to finance grassroot developmental projects that are designed by the schools with the objective of promoting the internal and external efficiency of their work. Schools can apply and compete for such financial grants, thus providing incentives for them to initiate improvements and developments.

- to activities and upgrade the standards of the supervisory services provided to schools locally and centrally, with the objective of emphasizing the supportive and developmental role of supervisors at the expense of the inspection role. This would require well-structured in-service training programmes and supervisory models that should be subject to follow-up and evaluation.

- to improve guidance and counseling services, to help learners assess their abilities and choose the appropriate educational and vocational paths.

Many of these needs and priorities, as well as those of basic and pre-school education are expected to be addressed by the "Education Reform for the knowledge Economy (ERfKE)" programme, the details of which are shown in box No. (9).

Box No. (9):	Education Reform for Knowledge Economy (ERfKE) Programme

Program Objective:

The objective of the first phase of the Education Reform for Knowledge Economy (ERfKE I) Program is to transform the education system at the early childhood, basic and secondary levels to produce graduates with the skills necessary for the knowledge economy. This broad objective will be realized through judicious implementation of the ERfKE-1 which is supported by the Government of Jordan and nine international partners.

Program International Stakeholders
- International Bank for Reconstruction and Development(IBRD)
- Arab Fund for Economic and Social Development (AFESD)
- Canadian International Development Agency (CIDA)
- Department for International Development (DFID), United Kingdom
- Kreditanstalt für Wiederaufbau (KFW),
- European Investment Bank (EIB),
- Islamic Development Bank (IDB)
- Japan International Cooperation Agency (JICA)
- United States Agency for International Development (USAID)

Project Components:
1. Re-orient Education Policy Objectives and Strategies through Governance and Administrative Reform
2. Transform Educational Programs and Practices for the Knowledge Economy
3. Support Provision of Quality Physical Learning environment
4. Promote Readiness for Learning through ECD

Program Cost
The total ERfKE I program size is estimated to be about US$380 million of which World Bank's share is US$ 120 million in the form of a loan mainly allocated to support civil works, goods and equipment, training and technical assistance. Other bilateral donors have given substantial contributions in technical assistance and training areas. The Government of Jordan is the largest contributor to the program.

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Ministry of Education
Mointoring and Evaluation Agency
National Center for Human Resources Development

Section Five

Vocational Secondary Education and Training

Introduction

As in the case of academic secondary education, all types of formal vocational education, whether school-based or cooperative (dual) between the school and enterprise, accept students who complete the ten years of basic education at the age of 16. In addition, there is a host of vocational training programmes with flexible entrance requirements and duration that cater for the needs of young people or adults, unemployed or employed, in such programmes as initiation training for the newly employed, upgrading training for the employed, job-oriented training for the unemployed, etc.

Two main systems of vocational education for the preparation of skilled workers and craftsmen exist in Jordan. These are the school system which is run mainly by the MOE, where the student/trainee acquires all his skills in the school workshops, and the apprenticeship or dual system which is run by a semi-autonomous agency, the Vocational Training Corporation (VTC), where the student/trainee acquires most of his practical skills on the job in the relevant enterprises.

At the national policy-making and planning level, both systems as well as intermediate university education in community colleges, come under the umbrella of the "Technical and Vocational Education and Training (TVET) Council" which was established in 2001 and is chaired by the Prime Minister.

Status

The following are the major outlines of the status and characteristics of vocational secondary education and vocational training in Jordan.

1. The Cooperative (Dual or Enterprise-Based) System in The Vocational Training Corporation (VTC)

   The VTC was established as a semi-autonomous organization in 1976, with a mandate to provide vocational training services and opportunities to prepare craftsmen, skilled workers and limited-skills (semi-skilled) workers, in such programmes as apprenticeship (dual) training), upgrading training for the employed, job-oriented training for the unemployed, initiation training for the newly-employed, and short-term training for the preparation of limited-skills (semi-skilled) workers. Other training programmes that are run by the VTC include instructor training, supervisory training, and training in the field of occupational safety and health. Recently, an additional role was given to the VTC, and that is the authority to testify and classify workers and workplaces. Consequently, it is gradually becoming mandatory for workers at the basic occupational levels (craftsmen, skilled workers, and limited-skills workers) and for workplaces to be tested and certified to have the necessary requirements to practice work.

   The VTC is supervised by a board of directors, which is chaired by the Minister of Labour. The members of the board include representatives of employers organizations, trade unions and the relevant government agencies.

   Box No. (10) shows some of the major statistical data and information about the VTC training programmes and facilities.

Box No. (10): The Cooperative (Dual) System of VET VTC Training Programmes and Facilities, 2003	Total	Female
Number of Training Centres	37	12
Total Number of Trainees (annual intake 2003)	15492	32%
▪ Craftsman level	2012	45%
▪ Skilled worker level	6021	28%
▪ Limited-skills level	3697	57%
▪ Others	76	0%
▪ Upgrading Programmes	3686	9%
Total Number of Trainees Accepted in 2002 and Continued in 2003	6919	30%
Total Number of Graduates (2003)	11982	28%
Total Number of Training Programmes:		
▪ Craftsman level	24	
▪ Skilled workers level	71	
▪ Limited-skills level	32	
Number of enterprises in training partnerships	>5000	

Source: Vocational Training Corporation, Annual Report, 2003.

The following are the major outlines of the cooperative (dual or enterprise-based) system of vocational training that is catered for by the VTC:

(i) All pre-service programmes are within the basic occupational levels for the preparation of workers. These levels include the craftsman, the skilled worker and the limited-skills (semi-skilled) worker levels.

(ii) Other programmes including upgrading training, special training for the unemployed, training for job changing, etc. are usually of short-term duration.

(iii) According to the strategic plan of the VTC for the period 2004-2007, the vision for the VTC includes:
  ▪ to seek excellency and full administrative and financial autonomy.
  ▪ to avail the appropriate environment for trainees through programmes that are designed in cooperation with employers.
  ▪ to provide efficient and competent instructors.
  ▪ to ensure that trainees possess the skills and attitudes that are compatible with the job needs.
  ▪ to provide training and consultation services to small and medium enterprises (SME`s).
  ▪ to contribute towards the enhancement of the Jordanian labour force potential, through the classification and certification of workers and work places.
  ▪ to build strong and sustainable partnerships with the private sector and NGO`s to ensure relevance between training outputs and labour market needs.

(iv) The goals set for the strategic plan of the VTC for the period 2004-2007 include:
  ▪ comprehensiveness of VTC services.
  ▪ excellence of programmes and relevance to labour market needs.
  ▪ interaction with society.
  ▪ flexibility of trainee intake.
  ▪ efficiency of policies and legislation.
  ▪ efficiency of organisational matters.

(v) The cooperative or dual approach to vocational training, as undertaken by the VTC, is not as "dual" as it should be. The following indicators explain the reasons:

- the system is fully dual at the implementation level, as most of the practical skills are acquired by the trainee on-the-job with full participation of employers.

- the system is partially dual at the planning and policy making level because, although employers and workers are represented at the relevant boards and councils, they are not effective enough in reflecting the needs and priorities of the labour market. Policies are still mainly drawn by the government.

- the system is not dual at the evaluation, testing and certification level, as these functions are exclusively undertaken by the VTC itself.

(vi) A relatively large number of enterprises participate with the VTC in apprenticeship and other training schemes, exceeding 5000. The great majority of such enterprises are small, each accommodating a few apprentices at a time. The work conditions and environment in many of the small enterprises leave much to be desired in terms of safety, quality control, organisation, etc. reflecting negatively on the quality of training.

2. The School System of VET

The school system of vocational education and training in Jordan, which is mainly undertaken by the MOE is much older than the cooperative or enterprise-based system, as it dates back to the twenties of the last century. Its major development and expansion started in the early sixties of the last century.

The school system of VET can be found in four types of educational and training institutions. These are:

(i) The specialized vocational secondary school which offers vocational programmes in one sector (e.g. industry, agriculture, health, etc.) with more than one specialisation.

(ii) The comprehensive vocational secondary school which offers vocational programmes in more than one sector.

(iii) The general comprehensive secondary school which offers academic and vocational programmes. The vocational programmes can be according to (i) or (ii) above.

All these three types adopt vocational programmes that contain a strong element of general education and can lead to higher education in addition to employment.

(iv) The training centre which is usually of a specialized nature offering training programmes in one sector, with a small element of general education, leading mainly to employment.

It should be noted here that the training centres that are operated by the VTC are not within this category of training institutions, as the VTC centres provide the off-the-job element of the training programme only and not all the requirements of the programme.

Box No. (11) shows some of the major statistical data and information about the school system of VET.

Box No. (11):	The School System of VET Training Programmes and Facilities, 2002	
I. Specialized Vocational Secondary Schools		
Total number of Specialized Voc. Sec. Schools		14
• Schools with industrial specializations		10
• schools with home-economics specializations		3
• schools with hotel & tourism specializations		1
▪ MOE schools		12
▪ Other government schools		1
▪ Private schools		1
II. Comprehensive Vocational Secondary Schools		
Total number of Comprehensive Voc. Sec. Schools		30
▪ MOE schools		28
▪ Other government schools		1
▪ Private schools		1
III. Vocational Divisions in General Comprehensive Secondary Schools (GCSS)		
Total Number of Voc. Divisions in GCSS		321
▪ MOE schools		311
▪ Other government schools		6
▪ Private schools		4
IV. Training Centres (Excluding VTC Centres)		
Total Number of Training Centres		4
▪ UNRWA centres		1
▪ Private centres		3
V. Students (Excluding VTC Students)		
Total Number of Students		about 33000
▪ MOE students		92%
▪ Female students		43%
VI. Teachers (Excluding VTC Teachers)		
Total Number of VET Teachers		about 4500
▪ MOE teachers		95%
▪ Female teachers		47%
VII. Qualitative Indicators (Including VTC Services)		
Repetition Rates in VET Programmes		0.8%
Student/Class Unit Ratio		24.2
Student/Teacher Ratio		10.5
Teachers' Qualifications		
▪ University graduates		58%
▪ Community college graduates		33%
▪ Secondary education graduates		9%
Students in Rented Facilities		1%
Students in Double-Shift Facilities		2%
Source: Ministry of Education, The Educational Statistical Report, 2001/2002, p. 285		

3. The Quantitative Dimension

Vocational education and training accommodates less than 30% of all students who complete basic education and carry on with secondary education and VET. This is considered inadequate and causes pressures, some of which are irrational, on purely academic streams of secondary education, as well as on university education at a later stage.

4. Gender
   Over one third of students and trainees in VET programmes are females who mostly join programmes in the services sector.

5. Curricula
   Six main streams exist in VET. These are industrial, agricultural, business and IT, health, hotel & tourism, and home economics. The specializations within each stream range from one as in business and IT, and over thirty as in industrial VET. Streams share a common core of general subjects which amount to one third of the total student load in specialized and comprehensive schools, but much less in training centres. Usually, a student has to take a dozen or so subjects with no electives, resulting in pressures due to the big learning load.
   Curricula and textbooks for all streams are non-differentiated and centralized.

6. Links with Higher Education
   Students of vocational programmes in specialized and comprehensive schools can compete on a par with students of academic streams for acceptance to universities on condition that they study a couple of extra subjects of advanced academic nature. Thus the link with university education is based on academic merit rather than on the type of secondary education the student joins. Joining intermediate university education, on the other hand, is accessible without the above mentioned condition.
   As for training centres, VET programmes are terminal. Graduates of such programmes who wish to join higher education institutions have to spend at least one more year in a VET or academic programme to be able to compete for entrance.

7. Teachers and Instructors
   Unlike the teacher body in academic secondary education where almost all teachers are university graduates, more than 40% of VET teachers are graduates of intermediate university education in community colleges or less. Nevertheless the major weakness in this respect is the fact that the majority of VET teachers come from academia with no work experience in the relevant enterprises. Furthermore, most of them lack the necessary pedagogical training, reflecting negatively on their training methodologies. The recent establishment of the "National Institute for the Training of Trainers" is expected to cater for the deficiencies in this respect.

8. VET Buildings
   The problem of rented and double shift facilities does not exist in VET institutions. Students in such facilities constitute only 1% and 2% respectively of the total number of students in these institutions.

9. Training Equipment
   Compared with academic secondary education, VET programmes are characterized by the need for special and expensive equipment for their practical component. In general, VET schools and centres are well equipped when they are first established. Sometimes, the problem arises when some years later the need arises for replacing or updating equipment, as in many cases funds are not enough for that purpose. The problem is expectedly less acute in the case of the cooperative or dual system of VET, as the greater part of practical training is implemented on-the-job in the enterprise.

10. The Qualitative Dimension
    The qualitative weaknesses in VET institutions and systems can be summarized as follows:
    • Inadequate training methodologies and trainee evaluation techniques.

    • Inadequate supervisory services that are not oriented enough towards the support and developmental function.

- Weak guidance and counseling services that reflect negatively on streaming criteria and procedures.
- Lack of employment services for VET graduates.
- Inadequate and obsolete equipment and machinery in some VET institutions.
- Weak relevance between VET outputs and labour market needs.
- Modest social status of the teaching profession.

11. Governance
The following diagram No. (3) shows the structure of the governance system for vocational secondary education and training in Jordan.
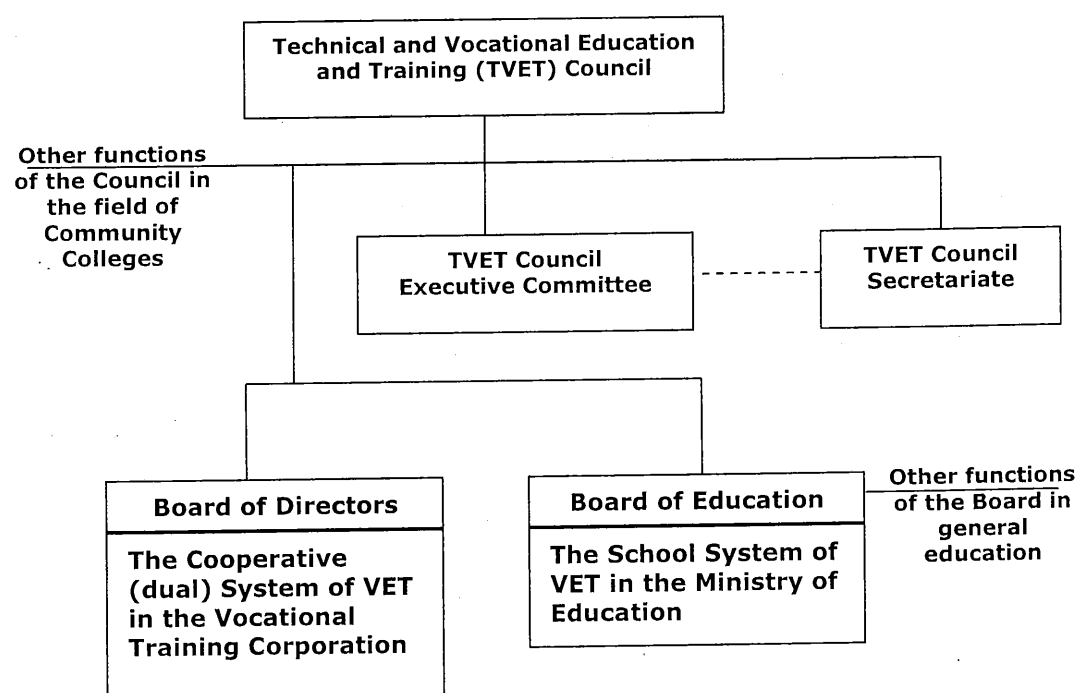

Diagram No. (3): Governance Structure of VET

The TVET Council, which is chaired by the Prime Minister with equal membership from the public and private sectors, is responsible for policy making and planning of TVET on the national level. An executive committee, chaired by the Minister of Labour composed of a few members of the Council undertakes the more frequent functions, and reports to the Council. The TVET Council provides the national policy making and planning umbrella for both the cooperative (dual) and school systems of VET, run by the Vocational Training Corporation (VTC) and the Ministry of Education (MOE) respectively. The VTC and MOE have their own Boards; But while the private sector is well represented in the VTC Board, it is not so well represented in the MOE Board which has other functions in the field of general education. The TVET Council has the additional mandate of post-secondary, intermediate university education in community colleges. On the other hand, the mandate and functions of the concerned agencies` headquarters (MOE, VTC) regarding the local or field units (directorates of education, VTC training

centers) are similar to those in basic and academic secondary education, except that most in-service training and HRD is implemented in a centralized manner.

Needs and Priorities

Following from the above, the national needs and priorities of Vocational Secondary Education and Training in Jordan can be summarized as follows:

- To expand the VET system within a ten-year plan with the objective of accepting about 50% of students who complete basic education. It is worthwhile noting that such a need has been specified as far back as the late eighties of the last century.

- To review the structure of the study plans for VET programmes, with the objective of reducing the learning load on students, promoting flexibility, and introducing an elective system.

- To support the newly established "National Centre for the Training of Trainers" in such areas as human resources development, training material, governance and organizational requirements. In addition, supervisory training for industry and business-based supervisors should be an additional activity within the mandate of this centre, as supervisors have a training function in their establishments in such schemes as apprenticeship and other types of on-the-job training.

- To assess critically the existing governance system for secondary education, with the objective of diluting the centralized nature of the system, and aiming at the empowerment of VET institutions.

- To activate and upgrade the standards of the supervisory services provided to VET institutions, with the objective of promoting the supportive and developmental role of supervisors. This would require well-structured in-service training programmes and supervisory models that should be subject to follow-up and evaluation.

- To promote guidance and counseling services, to help learners better assess their abilities and choose the appropriate educational and vocational paths.

- To develop a system of employment services for graduates of VET programmes.

- To replace obsolete and old equipment and machinery in VET institutions.

- To review the evaluation and certification system of VET graduates, so that employers play the major role in this system.

- To review the system of testing, classification and certification of workers and workplaces to improve the governance and technical aspects of the system, taking into consideration the obstacles and deficiencies encountered so far in its application.

Section Six

Higher Education: Community Colleges
(Intermediate University (Technician) Education)

Introduction

Community Colleges (CC's) in Jordan are intermediate-university-level institutions, forming an integral part of the higher education sector. These institutions offer educational programmes, mainly of a technical and vocational nature. Such programmes, which cover about a hundred specializations, are predominantly of two years duration. According to the relevant legislation, any accredited post-secondary education of 1-3 years duration comes under the umbrella of the CC system.

Until 1985, Community Colleges were under the responsibility of the Ministry of Education. The newly established Ministry of Higher Education (MOHE) took over in that year. In 1997, Al-Balqa Applied University was established with the responsibility of looking after intermediate university education in CC's, in addition to offering university education programmes.

There are nearly as many CC's as public ones. Private CC's which accommodate more than half the number of learners, are registered in the Ministry of Labour and Trade as corporations of private shareholders, in addition to being under the responsibility of Al-Balqa Applied University (BAU) concerning all academic and technical considerations, thus subscribing to the relevant legislative tools.

Despite some achievements and strengths of intermediate university education in CC's that are intended to be the source of technicians and middle-level human resources, this sector of the education system encounters many challenges and difficulties, both from within and without. This is despite sizeable support and developmental efforts that have been going on for the past few years with Canadian help through a project (Sustaining and Extending Technical and Vocational Education and Training-SETVET-) that is supervised by the National Center for Human Resources Development (NCHRD) with the objective of vitalizing technician-level education, upgrading its quality, and improving its relevance.

Status

Box No. (12) shows some of the major statistical data about intermediate university education in CC's for the academic year 2003/2004.

Box No. (12): Community Colleges Education in Jordan: Major Data and Information 2003/2004		
Total No. of Community Colleges	**53**	
No. of Public CC's (BAU)	16	
No. of Public CC's (others)	12	
No. of Private CC's	25	
Total No. of Students in CC's	**23920**	
No. of female students	14561	(61%)
No. of students in private CC's	12454	(52%)
Total No. of teaching staff	**1577**	
No. of female teaching staff	536	(34%)
No. of teaching staff in private CC's	498	(32%)
No. of female teaching staff in private CC's	233	(47%)
Source: *Annual Statistical Yearbook 2003/2004 (Summary, Ministry of Higher Education and Scientific Research.*		

The following are the major outlines of the present structure and characteristics of Community College education in Jordan:

1. Mission

   When the CC education was developed in the mid-eighties of the last century, to replace what used to be called "intermediate institutes" and before that "teacher education institutes", the mission required that the concerned educational institutions would respond to their communities` human resources needs of technicians and sub-professionals at middle occupational levels, by offering a spectrum of diversified formal and non-formal education services and activities that would serve the different social groups of the population, including adults, the employed, housewives, etc. as well as fresh graduates of secondary education. For various reasons, the formal two-year, diploma-directed type of programmes predominated, with little flexibility and with a modest component of non-formal and adult education. The main reasons for the lack of emphasis on non-formal and adult education are shown hereunder, especially under the headings of governance, testing and certification, links with university education, and human resources development.

2. Governance

   Community College education is the responsibility of one public university institution, Al-Balqa Applied University (BAU) which offers also university level programmes. BAU is part of the higher education sector that is looked after by the "Higher Education Council" which is chaired by the Minister of Higher Education and Scientific Research. Sixteen community colleges, out of the total number of fifty three, are directly administered by the university. Twelve others are run by other governmental ministries and bodies. The rest, numbering 25, are private CC`s. Experience showed that the model of having intermediate university education under the umbrella of a public university that was originally established with such a responsibility as one of its major mandates, is not necessarily the optimum solution or significantly better than the previous model when the MOHE provided such an umbrella. The academic environment in BAU seems to have predominated, reflecting negatively on the CC education system, most of which is supposed to be of a technical and applied nature.

   The establishment in 2001 of the "Technical and Vocational Education and Training (TVET) Council" with strong representation from employers and the private sector, with a mandate that encompasses CC`s, secondary Vocational education in the MOE, and vocational education and training, including formal apprenticeship, in the VTC, heralded a new era of consolidation.

3. Testing and Certification

   Testing and certification for the CC system is governed by a general comprehensive examination, which is mainly academically oriented, and which is held on a national level by BAU for CC graduates. Successful students are granted the CC diploma. Although such a testing and certification system helps partially to maintain minimum standards, especially in private institutions, it nevertheless puts pressures on CC`s to overemphasize the formal and academic aspects, at the expense of the non-formal and applied ones in their programmes and activities.

4. Accreditation and Supervision

   Accreditation criteria are available and applied for the establishment of new Community Colleges and serve as a reference framework for the follow-up and supervisory activities undertaken by BAU. Such criteria ensure the availability of appropriate physical facilities, technical standards and human resources. Nevertheless, some serious weaknesses exist in this respect, namely:

- Utilization of rigid criteria that lack flexibility and underemphasize diversification.

- The emphasis given to inputs rather than to processes, outputs and outcomes in the accreditation procedures.

- The lack of quality assurance measures and systems.

- Supervisory services are more oriented towards the inspection dimension than towards the proactive and developmental dimension.

- The rigidity of the system of curriculum content and standards, resulting in lack of flexibility in application, developmental efforts, relevance, and partnership among various stakeholders.

5. Links with University Education
Graduates of CC`s who score high grades in the CC diploma comprehensive examination are availed the opportunity to be accepted by universities within their or similar specializations. This "bridging system", as it is called, allows a good part of the credit hours taken by students to be accepted by universities, thus putting further pressures against the technical and vocational orientation of programmes, helping to further academize CC education.

6. Relevance: Links with Employment
The inadequate links between Community Colleges and the employment sector are one of the major weaknesses of Intermediate University Education, despite many ongoing efforts through the SETVET project referred to above. Such weakness can be found in the planning, implementation, funding and testing functions, whereby the inputs and participation of employers is far from adequate.

7. Funding
Funding of operations in public Community Colleges is secured partially from student fees and partially from government budget. Private Community Colleges are funded totally from student fees.
A new development in funding, associated with the establishment of the TVET Council, is the establishment of a "Vocational Training Fund" which is financed from employers. According to the legislative tool that established the fund, 1% of profits of shareholding enterprises is levied for this fund, to be spent on vocational training projects and activities.

8. The Quantitative Dimension
CC education suffers from the fact that it is not in high demand compared with university education. In 2003, while about 46 thousand students joined first degree programmes in Jordanian universities, less than 12 thousand joined CC programmes. Considering that about one third of CC graduates fulfill the "bridging" requirements and join university studies, the quantitative aspect of the dilemma of CC education can be realized.
The social demand for university education coupled with non-convincing services that are offered by CC`s contribute to the weak demand for CC education.

9. Human Resources Development (HRD)
Despite the fact that the teaching staff of CC`s are academically qualified, they lack some skills related to teaching and training methodologies as well as testing and evaluation techniques. In addition, many of them lack the experience in the world of work. An institute for in-service training of vocational and technical instructors is under establishment to cater for the relevant needs. The institute, already referred to in section five under the name "National Institute for the Training of Trainers, is being established and funded by Al-Balqa Applied University, with technical assistance from the

"Euro-Jordanian Action for the Development of Enterprises (EJADA)" which is one of the EU donor efforts to Jordan.

10. Libraries

All community colleges have reasonable library facilities, especially that such facilities constitute one of the criteria for accreditation. Electronic access to Arabic or foreign journals is not common at present in these colleges.

Needs and Priorities

Following from the above, the national needs and priorities of Intermediate University Education in Community Colleges in Jordan can be summarized as follows:

1. to assess critically the existing governance model of Community Colleges, and to explore the credibility and socioeconomic feasibility of an alternative model whereby an autonomous Technical Education Corporation (TEC) is established for this purpose, with a board of governance representing all stakeholders in the public, private and NGO sectors.

2. to build a management information system (MIS) for the intermediate university education sector.

3. to strengthen links and channels between Community Colleges and employers who should be considered as partners as well as beneficiaries. Participation of employers should be effective and comprehensive, covering such mandates as:
   - Planning and policy-making through the relevant councils, boards, committees, and legislative efforts.
   - Curriculum development, with an approach that is competency based.
   - Implementation, by providing facilities for pre-service and in-service on-the-job training.
   - Testing and certification.
   - Funding.
   - Development of the training function in the enterprise.

4. to rationalise the linkages between CC education and university education, through a mechanism of disengagement between the preparation of CC graduates for the labour market, and their preparation for continuing their university studies.

5. to institutionalize a system of in-service training for CC teachers and instructors, and to provide support to the "National Institute for the Training of Trainers" that is being established at present. Such support includes:
   - Qualifying a core group of trainers of trainers to undertake the training activities in the institute.
   - Developing training materials and modules.
   - Developing an efficient testing and assessment system.
   - Establishing an effective organizational structure that ensures autonomy, flexibility, partnership with stakeholders, etc.

It is worthwhile noting that some of these needs and priorities are being addressed, and responded to by a CIDA-funded project, "Sustaining and Extending Technical and Vocational Education and Training (SETVET)" project, which also supports vocational education and training in the Ministry of Education and the Vocational Training Corporation. Box No. (13) shows details of this project.

Box No. (13): Sustaining and Extending Technical And Vocational Education And Training (SETVET) Project (2000-2005)

Project Goal: To assist Jordan in the development of its human resources to globally competitive levels in order to foster economic development and support the prosperity of the society through increased employment and reduced poverty.

Project Purpose: To support the formulation of national policy directions which focus on a realignment of Jordan's TVET systems with the demands of a modern economy, and to strengthen the capacity of the respective TVET providers to conform to this realignment at the systemic, institutional, management, instructional and program levels.

Expected Results:

1. **Gender and Development:** Gender issues are integrated into all project activities.

2. **National Initiatives:** The National TVET Task Force through the newly formed National TVET Council formulates TVET policy linked to Economic Consultative Council (ECC) expectations. TVET Policy Framework is guiding systemic change and development.

3. **Industry Liaison:**
   - Productive Sector partners are selected and the resultant liaison model contributes to the formulation of national TVET strategy and program objectives.
   - Productive sector partners input established into all institutional (BAU, VTC, MOE) planning and program development processes.

4. **Balqa Applied University (BAU):**
   - BAU Strategic plan updated .
   - BAU Organizational Development Plan is completed and implemented.
   - BAU MIS system is designed, purchased and operational.
   - BAU Planning and Program Development Units are established, individuals trained and related procedures become operational.
   - Revised curricula are being delivered.
   - Planning and program development procedures are validated through the implementation of pilot projects.

5. **Vocational Training Corporation (VTC):**
   - Strategic Development Plan is in place and guiding VTC activities,
   - "Instructional Resources and Curricula Development Centre" capacity enhanced and extended.
   - Programs are being renewed in CBE format., designed and implemented.
   - VTC MIS system is designed and an implementation plan is ready.
   - A management plan is in place and guiding VTC responsibilities related to the Occupational Organisation Law.

6. **Ministry of Education (MOE):**
   - Enhanced understanding at senior levels of MOE regarding global trends in secondary TVET education.
   - Implementation plan in place to establish a model TVET school.

7. **National Center for Human Resources Development (NCHRD):**
   - Enhanced capacity in the NCHRD in undertaking HRD policy and   planning analysis.
   - Enhanced capacity in NCHRD relating to labour market analysis is being used to generate labour market information products, which are relevant to the decision-making requirements of the TVET Council and the system's institutions.

Project Cost
The project value is 4.7 million Canadian dollars made available through a grant from CIDA.

Implementing Agency
The National Center for Human Resources Development.

Section Seven

Higher Education: Universities

Introduction

Universities in Jordan are traditionally autonomous institutions of higher education that are governed on the policy level and regulated for by a Council, "The Higher Education Council (HEC)" which is chaired by the Minister of Higher Education and Scientific Research. Recent legislative tools (laws number 41, 42 and 43) were enacted in 2001 to update old ones, providing the general legislative umbrella for public and private universities, including mission, general structures, etc.

There are more private universities than public ones. Nevertheless private universities accommodate only about one third of the total number of students that amount to 180,000. As in the case of CC`s, private universities are registered in the Ministry of Industry and Trade as corporations of private shareholders, in addition to subscribing to the relevant educational laws.

University education in Jordan is only forty years old. Nevertheless it is considered of a relatively reasonable standard, offering a wide spectrum of graduate and post-graduate programmes.

Despite many strengths and developmental efforts, as for example the ongoing World Bank financed "Higher Education Development" project which is administered by the NCHRD, university education faces many challenges and obstacles, both from within the system itself and from outside.

Status

Box No. (14) shows some of the major statistical data about university education in Jordan for the academic year 2003/2004.

Box No. (14): University Education in Jordan Major Data and information, 2003/2004		
I. No. of universities:	**22 of which 9 are public**	
II No. of First Degree Students	**Number**	**% Female**
(i) Applied Sciences	39143	37
(ii) Natural Sciences	29873	44
(iii) Humanities and Social Sciences	97582	58
Total Number of first degree students	**166598**	**50**
Number of First Year Students	**45708**	**50**
III No. of Post-Graduate Students		
(i) Doctorate Degrees	2094	26
(ii) Masters Degrees	8370	36
(iii) Higher Diplomas	2660	48
Total Number of post-graduate students	**13124**	**37**
IV No. of Academic Staff (Faculty)	**5696**	**16**
(i) Full Professorship	839	4
(ii) Associate and Assistant Professorship	3284	11
(iii) Other (Lecturers, Assistants, etc.)	1573	34
V Non Jordanian Students		
(i) First Degree Students	17782	27
(ii) Higher Diploma Students	583	80
(iii) Master Degree Students	1009	23
(iv) Doctorate Degree Students	168	20
Total Number of Students	**19542**	**27**
Source: Annual Statistical Yearbook 2003/2004 (Summary), Ministry of Higher Education and Scientific Research.		

The following are the major outlines of the present structure and characteristics of university education in Jordan:

1. The Quantitative Dimension

Unlike the case of Community College education, there does not seem to be a shortage in university facilities, services and beneficiaries. With 22 universities, and about 180 thousand university students in addition to about 30 thousand studying abroad, constituting about one third of the population of the age group 18-24, and considering the relatively high unemployment rates among university graduates that exceed the national unemployment rates, one is tempted to conclude that no major quantitative expansion is needed. Nevertheless, half a dozen new, public and private universities have already been given permission to be established within the coming few years. One of them will be established with German involvement.

2. Enrolment Policies

The enrolment of students in universities is governed by a number of conditions and criteria that include the following:

(i) Passing the national "General Secondary Education Certificate Examination (GSECE)", which is held at the end of secondary education is a pre-requisite for enrolment in universities. The rate of success in this examination is usually less than 55%. Nevertheless, passing the examination does not necessarily guarantee acceptance in universities due to the competitive nature of enrolment and the high demand on university education.

(ii) Enrolment criteria vary according to type of disciplines, location of the university, and whether the university is a public or private one. Medical and Engineering disciplines require higher standards of attainment in the GSECE. On the other hand, public universities in general accept students of higher standards due to the bigger demand because of lower fees.

(iii) Although the majority of students are accepted in public universities on a competitive basis nationally, many of them are accepted on a quota basis. Geographical and social criteria define the different types of quotas, some of which seem justifiable while some others don't seem so. Quotas target the following social groups:
- Seventy students from each directorate of education, who score the highest grades in the GSECE.
- Sons and daughters of teachers of the Ministry of Education.
- Sons and daughters of personnel of the Armed Forces.
- Sons and daughters of palestinian refugees.
- Sons and daughters of beduins.
- Sons and daughters of residents of areas with underdeveloped schools.

In the opinion of the author of this study, the only justifiable quota is the first one that targets the directorates of education, since such quota takes into consideration variations in the socioeconomic conditions in the different regions of the country.

3. Funding

Until recently, recurrent expenditures for public universities were funded mainly from a government grant, and partially from student fees and income-generating activities. Student fees then constituted less than a third of the needs. It is worthwhile noting here that student fees for post-graduate studies are much higher than those for first degree studies, covering most, if not the full cost of such studies. Funding sources for capital expenditures, on the other hand, included government budgets, donations, loans, etc. Furthermore, private universities depended completely on student fees to fund their recurrent expenditure.

Major policy changes took place during the past few years in the funding of public universities. Such changes included:

(i) the gradual raising of student fees which eventually will be the major source for funding recurrent expenditures.

(ii) the introduction of parallel paths for student registration whereby students who could not join through the highly subsidized ordinary programmes within the competitive procedures, can register with full fees. This source of funding will obviously phase out gradually as student fees rise.

(iii) the establishment of a student fund to provide loans and grants to needy students.

(iv) the gradual channeling of the government grant to the student fund.

(v) Some research activities are contributed to by private sector enterprises. One of the funds that is administered by the Higher Council for Science and Technology is contributed to by a few major industrial enterprises. Some universities are active in securing funds from enterprises to finance research projects that are of interest to these enterprises.

Most of these measures have been initiated, albeit with slow progress. It is expected that the new funding policies will take some time to materialize.

4. Status of Private Universities

The fact that private universities are registered in the Ministry of Industry and Trade as corporations of private shareholders, thus subscribing to the relevant legislation in addition to subscribing to the relevant educational legislative tools, is causing sometimes some friction and conflicts between the investors and owners on the one side and the university administration on the other.

5. Gender

Female participation in university education for the first degree is slightly higher than male participation. The situation is different in the case of post-graduate studies, especially for the doctorate degrees, where females constitute only 37% of the total. A similar situation exists in the case of natural and applied sciences, where females constitute only about 40% of the total, although such a figure can be noted in many industrialized countries. What is more discouraging in this respect is the gender issue in the teaching profession in universities where females constitute only 16% of the total. The predominance of females in the teaching profession in pre-university education is far from reflected in university education.

6. Post-graduate Studies

Post-graduate studies in Jordanian universities started to expand only recently in terms of number of students and disciplines for the third (doctorate) degree level, i.e. since the mid-nineties of the last century. Before that, the number of disciplines at the doctorate level were limited, and offered by a few public universities. Consequently, a great proportion of doctorate degrees until then were acquired through universities outside Jordan. No such limitations existed for lower levels of post-graduate studies, i.e. for the Master's and Higher Diploma levels.
During the past decade, a major expansion took place at the doctorate degree level, especially after the establishment of a private not-for-profit university for higher studies, the "Arab Amman University for Post-Graduate Studies". Nevertheless, many quantitative and qualitative challenges are encountered by post-graduate studies in Jordanian Universities, including:

- Most studies for the doctorate degree are in the fields of humanities and social sciences. Such studies in the exact and natural sciences, and more so in the applied sciences, are limited.

- The quality of research in higher studies, especially for the doctorate degree in the humanities and social sciences, needs thorough assessment and upgrading.

- Although the education system is an open one, and is free of any direct gender prejudices, female participation in post-graduate studies is mainly influenced by social and economic considerations. The majority of post-graduate studies, especially for the doctorate degrees, are undertaken by working individuals who can support themselves economically. The fact that females constitute less than

20% of the labour force and that they marry earlier than males, explain to a great extent the low participation rate of females in post-graduate studies.

- Until recently, the "Ministry of Higher Education and Scientific Research" held the name "Ministry of Higher Education". Adding "Scientific Research" four years ago emphasized the need to promote and regulate scientific research on a national level. Nevertheless, the role of the Ministry in promoting scientific research has not so far been activated as to have a noticeable impact in the field of scientific research.

- Although the experience of the "Arab Amman University for Post-Graduate Studies", as a not-for-profit university, has been successful, it has not been replicated yet. It is worthwhile noting that although the university is owned by a not-for-profit company, the land, buildings and equipment are owned by another share-holding for-profit company and rented to the not-for-profit company. The fees of students cover the running costs of the university. Any surplus is used for developmental purposes.

7. Accreditation

A comprehensive and relatively tight system for the accreditation of higher education institutions is in place. Nevertheless, such a system faces two limitations: the first is that it is applied only on private universities despite the fact that the relevant legislation does not differentiate between public and private universities in this respect. The second limitation is that the standards and criteria for accreditation are mostly concerned with inputs, such as space facilities, equipment, faculty and human resources, student services, etc. Processes and outputs that better assess the quality and standards of education are lacking in the accreditation criteria. The factors that have so far been standing in the way of reforming the accreditation system include the lack of flexibility, lack of high levels of experience, the ongoing debate about the status of the accreditation function regarding its relation with the Ministry or otherwise its autonomy, and some financial restrictions. The initiator for such reform is usually the Higher Education Council with inputs from the Ministry, committees, civil society, and government.

8. Human Resources (Faculty)

A noticeable shortage exists in university teaching staff in general, and for post-graduate studies in particular. The shortage is accentuated by the more favorable work conditions in the universities of the Gulf Countries which attract many Jordanian faculty members. The shortage is usually compensated for by the recruitment from other, mainly Arab, Countries, such as Iraq, Egypt, Syria, etc.

9. Non-Jordanian students in Jordanian Universities

Non-Jordanian students in Jordanian universities constitute more than 10% of the university student population. Most of these come from other Arab countries, especially Gulf countries. Nevertheless, some come from Far-Eastern and other Moslem Countries. It is estimated that non-Jordanian students spend $50 million annually to cover the cost of their education and living in Jordan.
It is expected that the number of non-Jordanian students in Jordanian universities will keep increasing due to political and security considerations in Western Countries, especially in the USA.

10. Governance

The following diagram No. (4) shows the structure of the governance system for higher education (universities and community colleges).
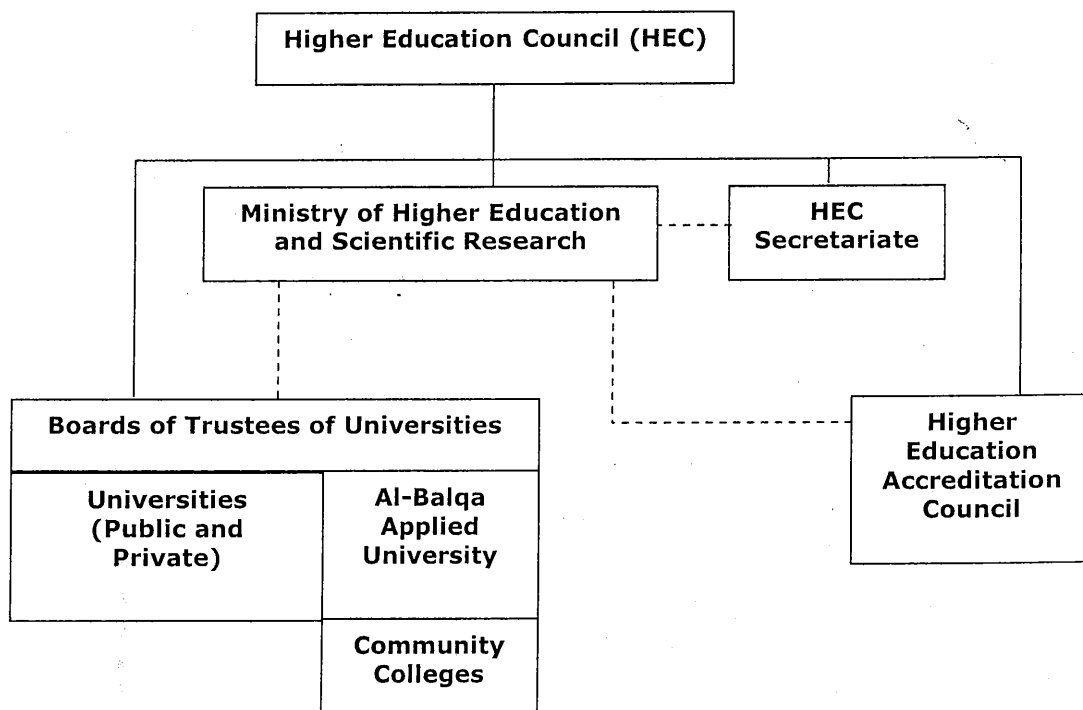
Higher Education Council (HEC)

Ministry of Higher Education and Scientific Research

HEC Secretariate

Boards of Trustees of Universities

Universities (Public and Private)	Al-Balqa Applied University
	Community Colleges

Higher Education Accreditation Council

Diagram No. (4): Governance Structure of the Higher Education Sector

Universities are autonomous to a great extent and are strongly represented in the Higher Education Council which is the highest authority in policy-making and planning for higher education. The mandate of the HEC include entrance criteria to higher education institutions, establishment of new institutions, accreditation decisions, distribution of government funding, choice of university presidents, and disciplinary actions against private institutions.

11. Libraries and Publications

All universities have good library facilities, especially that such facilities constitute one of the criteria for accreditation. Electronic access to journals in Arabic and foreign languages is becoming a standard practice in universities, utilising ICT.

Most universities issue journals periodically, covering the spectrum of sciences. Nevertheless, considering the quantitative and qualitative aspects of such an activity, some rationalisation and coordination of efforts among universities is needed.

Needs and Priorities

Following from the above, the national needs and priorities of higher education in universities in Jordan can be summarized as follows:

- to review and rationalize university enrolment policies, criteria and conditions, taking into consideration the following major principles:

  - building enrolment policies on the basis of dealing with the whole higher education sector, including universities and community colleges.

  - reviewing and rationalizing the quota system of enrolment in public universities, with the objective of phasing out unjustified quotas.

  - unifying enrolment criteria in public and private universities.

  - promoting quality and ensuring high standards.

- phasing out the parallel paths of enrolment that are not based on competitive criteria, so as to enhance the democracy of higher education.

- enhancing the enrolment of non-Jordanian students in Jordanian universities by better catering for their academic and non-academic needs.

- to enhance the relevance of university education outputs to developmental needs and labour market requirements, through such measures as:

  - enhancing the involvement of private sector representatives in policy making and planning for university education, through such platforms as the boards of trustees, the Higher Education Council, etc.

  - improving career guidance and counseling services to higher education students.

  - improving employment services to the graduates of educational institutions, including universities.

  - activating the utilization of the "human resources information system" that provides information about the supply and demand sides of the labour market.

- to upgrade the accreditation system of higher education institutions, taking into consideration that the accreditation criteria should be based on the quality of both inputs and outputs of such institutions. On the other hand, the governance structure of accreditation should be reviewed to enhance the autonomy and effectiveness of the accreditation function.

- to establish a comprehensive funding policy for higher education in general, and for university education in particular, according to the following framework outlines:
  - ensuring that students fees cover most of the recurrent costs.
  - establishing an effective student fund to avail loans to needy students, so that no individual is denied higher education on social or economic grounds, if he fulfils the relevant requirements.
  - ensuring that government grants to higher education institutions are linked to promote certain programmes and activities of national priority and importance, such as research, ICT, teacher preparation, etc.
  - encouraging contracted research whereby research projects are financed by and directed to the needs of industry.

- to cater comprehensively for the human resources needs of universities through such measures as:
  - intensifying scholarship programmes for PH.D. degrees to reputable universities.
  - supporting and activating the "Faculty Development Centres" that have recently been established in universities to avail in-service training for the academic staff.
  - encouraging females to join the faculty of universities, and providing special incentives for that purpose, such as easy access to scholarship schemes.

- to enhance the capacity of universities in the field of post-graduate studies and research, through such measures as:

  - upgrading the capacity of universities in post-graduate studies, quantitatively and qualitatively, especially in the fields of natural and applied sciences.
  - encouraging common research programmes with external reputable universities.
  - exchanging research staff with reputable universities.
  - supporting contracted research as mentioned above.
  - reviewing the criteria for the "sabbatical" system, to ensure the involvement of the released faculty in R&D activities.

- to review the legislative framework whereby universities are accountable to both the Ministry of Higher Education and Scientific Research and the Ministry of Industry and Trade, with the objective of reducing friction between the investors and owners of facilities on the one side and university governance on the other.

- to establish a "quality assurance" system for higher education institutions. Such a system can be associated with, or independent from, the accreditation system.

It is worthwhile noting that some of the needs and priorities for university education are contributed to by the ongoing higher education development project (HEDP), which is financed jointly by the World Bank and local sources. Box No. (15) shows the objectives, components and funding arrangements of this project.

Box No. (15) Higher Education Development Project (HEDP), 1991-1995

Project Development Objective

The objective of this project is to initiate improvements in the quality, relevance and efficiency of Jordan's higher education, and to support the Kingdom's program to reform sector governance. The project would: (i) establish system-wide modern information technology (IT), management information systems (MIS), and library infrastructure for higher education; (ii) support a Higher Education Development Fund that would provide grants to public universities for innovative and economically relevant sub-projects and for improving teaching and learning; (iii) initiate reforms of higher education governance, including the introduction of formula-based allocation of higher education recurrent funding from the Government; and (iv) support the rationalization of the community college sub-sector through the new Al-Balqa' Applied University (BAU).

Project components

1. Initiate improvements in quality, relevance and efficiency through support for:
   - (a) essential infrastructure. for inter- and intra-university information technology networks, management information systems, modern library systems and faculty training; and
   - (b) the Higher Education Development Fund (HEDF), which would allocate investment funding for university-based (i) academic and entrepreneurial subprojects, according to specified criteria contained in the HEDF Operations Manual; (ii) information technology (IT) proposals; and (iii) Faculty Development Centers.

2. Initiate improvements in governance through support for the Higher Education Council's Secretariat, the Higher Education Accreditation Council; and management and planning at the university level.

3. Support reform of the community college system through the following at Al-Balqa' Applied University: governance and management; new program development; human resources development; and facility and equipment upgrade.

4. Support project implementation capacity including staffing and equipment for the Project Implementation Unit and University Implementation Units.

Financing:

Source	Million $
Government of Jordan	15.7
Jordanian Universities	15.8
IBRD	34.3
Total	**65.8**

Implementing Agency

The National Center for Human Resources Development (NCHRD)

Section Eight

Special Education

Introduction

Special education targets groups with special needs. Such groups would normally include:
- The talented and high achievers in such fields as academics, sports, arts, etc.
- The physically handicapped.
- The slow learners.
- The mentally handicapped.

Other groups might include in some societies the underprivileged, the social caste, etc.

Two models can be cited in education systems regarding the facilities and services made available for groups with special needs:

(i) The "separation" model which is characterized by the availability of educational institutions that admit only learners with special needs.

(ii) The "integration" model whereby the potential beneficiaries are integrated into the normal schooling system, sharing with others all basic services and facilities, while being availed additional services in response to their extra special needs.

Special education, with its two models, is a feature of the Jordanian education system, although it is far from being comprehensive enough as to encompass a good portion of the concerned groups.

Status

The following are the main outlines of the present structure and characteristics of special education in Jordan:

1. Legislation
   Basically, both the Constitution and the Education Law refer to the right of every individual, including individuals with special needs, to the type and level of education that fits his/her abilities. Many other legislative tools tackle the issues and needs related to groups with special needs. One major law that was enacted ten years ago activates and specifies the general principles incorporated in the Constitution and the Education Law regarding the right of the handicapped to special educational, health and social services, and the roles of the MOE and Ministry of Social Development in this respect.

2. The talented and High Achievers
   The two aforementioned models that cater for groups with special needs can be cited for the talented and high achievers in the Jordanian education system. On the "Separation" model side, one relevant institution, which is a private school that is extensively supported by the MOE, offers relatively high quality programmes for about 300 students in grades 9-12. A few other public schools, run by the MOE, have recently been singled out for this purpose, accommodating about 1000 students in grades 7-12. Theoretically, the second, i.e. "integration", model is catered for by the fact that all schools are required and encouraged to cater for the needs of the talented and high achievers. In practice, a small percentage of schools live up to this challenge.

3. The Slow Learners and the Handicapped
   The two models referred to above apply in the case of the slow learners and the handicapped with a more distinct categorization of the "Separation" and "integration" concepts. A good part of the efforts and services provided for the handicapped are undertaken by private, mainly voluntary and philanthropic organizations. This applies to groups which cannot be easily integrated in the

ordinary educational institutions, such as many categories of the handicapped. Slow learners and those with mild handicaps are mostly integrated in the ordinary school system. Many MOE schools have specially prepared resource rooms to avail extra services to slow learners. One particular NGO cooperates closely with the MOE in this respect, offering services in the field of teacher training and educational material development.

4. The Quantitative Dimension
   It is generally recognized that 10%-15% of the population in any society should be catered for by one kind of special education or another. In Jordan, this means more than one hundred thousand school children. Only a small fraction of this number is catered for by special education services and facilities.

5. Quality
   The quality of services offered to learners with special needs on both sides of the spectrum of abilities leave much to be desired, with the exception of few cases and with varying degrees from one location to another. The weaknesses can be cited in almost all inputs to special education, including human resources, educational material, facilities and governance.

Needs and Priorities
Following from the above, the national needs and priorities of Special Education in Jordan can be summarised as follows:

- to review all existing legislative tools, that are related in one way or another to groups of special needs, in order to enact the necessary legislation needed for the development of special education. In this respect, special education for individuals of special needs should be viewed as a human right.

- to develop a comprehensive approach to special education as an integral part of the education system, and to adopt a system approach to such development, that encompasses visions, policies, planning tools, funding mechanisms, organizational structures, roles of stakeholders, etc. This should lead to a national policy on special education that ensures full partnership between the public, private and NGO sectors.

- to expand educational facilities and services to all groups of special needs within the public, private and NGO sectors. This applies to both the "separation" and "integration" models as deemed appropriate.

- to establish a system of "human resources development" for special education. Such a system would cater for pre-service and in-service education and training programmes for teachers and administrators involved in special education. Universities should be major players in these efforts.

Section Nine

Non-formal and Adult Education

Introduction

It is no exaggeration to state that modern education systems are judged, regarding their status and progress, by the type, extent and standard of facilities and services in the non-formal and adult education sector within the concept of life-long education, as much as, or even more than, by such facilities and services in the formal education system.

In Jordan, whatever progress and achievements were realized in the field of formal education at the basic, secondary and higher levels, were not matched by similar or comparable progress in the field of non-formal and adult education.

Status

The following are the major outlines of the status and characteristics of non-formal and adult education in Jordan.

1. Types
    Non-formal and adult education efforts include a wide spectrum of activities, services, facilities, providers and stakeholders. Examples of such services include, but are not restricted to:
    *   Training programmes offered by private (for-profit and not-for-profit) and public institutions. Such programmes vary in duration between a few days and a few months, and vary in content covering a variety of vocational, educational and cultural fields, including such areas as administration and management, ICT, vocational skills, languages, etc.
    *   In-services training activities offered, supported or made available by employers in the private and public sectors, to upgrade and enrich the capabilities of their staff.
    *   Academic studies provided by ordinary schools, colleges and similar institutions to adults, to enable them move up the educational ladder. Such studies vary in content and level, and include distance education and e-learning programmes offered by a wide spectrum of institutions: local and external.
    *   Literacy programmes offered free of charge to illiterate adults who constitute about 9% of the population of the age groups above 15.

2. Weaknesses
    Existing non-formal and adult education facilities and services are characterized by being:
    *   Mostly of a scattered nature,
    *   Lacking adherence to quality assurance standards and criteria,
    *   Lacking the framework that defines the policies and strategies for development.
    *   Biased towards the social groups that are economically and culturally privileged, as a good proportion of the relevant services are relatively expensive to make use of, and/or target the well educated groups.

3. Strategy
    Despite the availability of many facilities and services, non-formal and adult education has not so far been one of the priorities of the Jordanian education

system. Educational strategies and policies do not adopt a developmental approach to non-formal education, which should be:

- An integral part of the concept of continuing and life-long education for all.
- One of the essential requirements for sustainable human development in general and human resources development in particular.
- An essential tool to keep abreast with quick knowledge and technological developments.
- A major need and requirement on the national level to help the transition to a knowledge economy and a knowledge society.
- An effective means, if adequately utilized, to bridge the educational, and hence the socioeconomic gap between the various social groups of society.

4. Funding

The present status of funding for non-formal and adult education lacks the role of contributing to bridging the knowledge gap, and hence the social gap, in society. Many of the funding structures and sources of finance for the relevant services contribute to widening such gap. This is because a good part of such services target qualified and financially able people, and those who are motivated and have the incentives for self development. This applies to a multitude of programmes that are offered by private sector institutions. Voluntary and philanthropic organizations which offer free or low cost programmes and target underprivileged groups, including the poor, refugees, the handicapped, etc. are believed to have a modest impact. Furthermore, in-service training for employees in the public and private sectors is usually governed by economic, rather than social considerations, targeting the interest of the enterprise rather than the individual.

5. Studies and Research

The issues related to non-formal and adult education do not seem a favourite field for researchers and academicians, or even such learned activities as conferences, human resources development, etc.

6. Governance

As mentioned earlier, non-formal and adult education in Jordan is characterised by being of a scattered nature, and lacking high level policy approaches, strategic vision and governance frameworks, including legislative tools, funding policies, institutional set-ups, etc.

7. Information System

The current importance given to the information system, including MIS, in the field of formal education is not matched by similar efforts in the field of non-formal and adult education, making it difficult to draw accurate strategies, take informed policy decisions, or undertake studies and research work.

Needs and Priorities

Following from the above the national needs and priorities in the field of pre-school and adult education can be summarised as follows:

1. to conduct a major and comprehensive assessment of all aspects of non-formal and adult education, including such dimensions as situation analysis, strengths, weaknesses, opportunities and risks, to help in major development efforts.

2. to establish a strategy for non-formal and adult education that draws the outlines of a national system with clear social, cultural and economic implications and dimensions.
Such strategy should be designed to have an impact on economically and socially underprivileged groups, to promote social equity, and to avoid a situation whereby non-formal and adult education contributes to making the

knowledgeable and socially privileged more knowledgeable and socially privileged and vice-versa, thus widening the knowledge gap, and hence the social gap, in society.

3. to explore the funding and financing issue thoroughly, with the objective of using the relevant policies to fulfill both economic and social objectives, as referred to above.

4. to encourage studies and research work related to the various issues of the non-formal and adult education sector.

5. to establish a comprehensive system of human resources development for the non-formal and adult education sector, to guarantee that an adequate pool of professionals, technicians, trainers, etc is available. Such system should cover the human needs of pre-service programmes in higher education institutions as well as the HR needs of in-service programmes.

6. to strengthen the links and channels between formal and non-formal education at the policy as well as implementation levels that include standards certification, accreditation, etc. without reflecting negatively on the flexibility, diversification of objectives and other specificities of non-formal education.

7. to establish a national governing body in the form of a Council or Board, with an effective secretariat to act as an executive arm with a clear vision aiming at the development and consolidation of non-formal and adult education as an effective means of activating the concept of "Learning for Life for All". The composition of such a governing body should take into consideration the need for an active and participatory approach to planning and policy making by all stakeholders in the public, private and NGO sectors, with a mandate to:
   - regulate the non-formal and adult education sector, and enact the necessary legislative tools, taking care to avoid over-regulation that might reflect negatively on flexibility and diversification for a sector that is by its nature flexible, diversified and decentralized.
   - design the relevant policies and strategies
   - define the roles of the various providers in the public, private and NGO sectors.
   - define the type and extent of links and channels with the formal education sectors.
   - define accreditation criteria for the institutions that provide the relevant services, including standards, certification, quality assurance, etc.
   - undertake general follow-up and assessment activities, through studies and research.
   - Provide support to providers, institutions, programmes and beneficiaries, to promote national policies and priorities, and to enhance the democratization of HRD systems.

8. to establish a comprehensive information system for the non-formal and adult education system to provide the necessary statistics, data and information that can be transformed into knowledge and utilized for decision making. Such system can cover such components as:
   - programmes
   - providers
   - beneficiaries
   - human resources
   - geographical distribution

9. to establish centres of excellence, affiliated to universities and/or other concerned institutions, to undertake developmental activities in the field of non-formal and adult education.

Section Ten

General Examinations

The General Secondary Education Certificate Examination (GSECE)

Introduction

Examinations have great impact on the various aspects of the teaching-learning processes. Their importance stems from the fact that they influence not only what is taught, but also how it is taught. They also influence any home-based contribution to the teaching-learning process. This applies to evaluation and testing systems that assess student performance, both at classroom or school level as well as at central or national level.

Various types of assessment tools and examinations exist and are utilized by different education systems, ranging from the general-ability-type test to the cognitive and subject-based test. Several historical, cultural and educational factors influence the type of assessment tool utilized in any particular education system.

Status

The following are the main outlines of the present structure and characteristics of the system of general examinations in Jordan:

1. Level
    The Jordanian education system is characterized by being free from the bottlenecks of general national examinations, except after the end of secondary education, i.e. after grade 12, when "The General Secondary Education Certificate Examination (GSECE)" is held to serve as entrance requirement to higher education. Passing the GSECE is a prerequisite for joining all types and levels of higher education in universities and community colleges.

2. Criteria
    Criteria for successfully passing the GSECE are rather stringent. To be considered successful students are normally required to pass more than ten subjects in any one of the eight types of secondary education, namely scientific, literary, industrial, agricultural, information and communication, hotel and tourism, paramedical and home economics. Even then, a border-line pass in the total average is not enough to join a university. The social pressures, and the highly competitive nature of university acceptance procedures, place pressures on the education system as a whole.

3. The Quantitative Dimension
    About 104 thousand students sat for the GSECE in 2004. About 20% of these did so as private-study students, i.e. without being sponspored by a school. Private-study students comprise applicants who prepared themselves for the GSECE through special, evening, home, etc. studies. These applicants comprise such groups as those who failed the GSECE in previous years and wished to try again, or adults who originally dropped out of school, or graduates of terminal VET programmes.

4. Management
    The MOE is the sole responsible agency for the GSECE at the planning and implementation levels. Previous attempts to involve other stakeholders, such as universities, have not materialised. Such involvement was planned at that time

through the establishment of a "General Examinations Council" to be the policy making and planning body in this respect.

5. Quality

Despite some efforts undertaken by the MOE to develop the structure and upgrade the content of the GSECE, this national examination is still oriented mainly to measure the cognitive type of skills. A long-awaited breakthrough is still to come to design an assessment tool that is oriented to measure the different abilities and skills of the learner in a balanced manner, including higher-order mental skills. Such a shift would further democratise the education system by reducing non-educational influences on the assessment outputs, such as the social or economic background of learners.

Recognising this weakness, the MOE has recently embarked on the development of an exam-item bank which consists of a pool of well-designed exam questions from which exam papers are set electronically. If well developed, such an effort will help to upgrade the quality of the GSECE.

6. Human Resources Development

Part of the weaknesses in the content of the GSECE can be attributed to the lack of enough special experiences related to measurement and assessment techniques, although all those involved are professionals in their subject matter and other educational fields. In general, this applies to those who administer the national examination as well as those who actually set the examination papers.

Needs and Priorities

Following from the above, the national needs and priorities of the General Examination system in Jordan can be summarised as follows:

- to develop the management system of the GSECE by disengaging it from the MOE. A national autonomous body in the form of a Council or Board with representatives from the relevant stakeholders, is suggested to take over the management of the examination system from the MOE. The relevant stakeholders include:

  o Ministry of Education.

  o Ministry of Higher Education and Scientific Research.

  o Universities and Community Colleges.

  o Teachers.

  o The Private Sector.

- to rationalize the relation between the GSECE and secondary education. The general examination should not be a pre-requisite for successfully ending secondary education, but rather a pre-requisite for acceptance to higher education. Thus, the secondary school certificate should be recognized as testifying the successful completion of secondary education for the purpose of joining the labour market. This is the more important as secondary education is gradually becoming universalized to the extent that it might, at some point, become compulsory, thus extending basic compulsory education from ten to twelve years.

- to support the development and reform of the GSECE at the grassroot level, by a parallel effort of development and reform that is directed to school examinations which suffer even more from the overemphasis on the cognitive element in the assessment and testing process.

- to support the efforts that are undertaken by the MOE to enhance the quality of the GSECE so as it can assess the different abilities of the learner. In particular, to support the establishment of the exam-item bank within that context.

- to establish a sustainable system of human resources development in the field of educational measurement and assessment techniques. Such a system should take into consideration the need for in-service training across the education system including school teachers, and pre-service training for specialists in the relevant disciplines in cooperation with universities.

- to develop the structure of the GSECE with the objective of enhancing its flexibility and credibility, through such measures as:

  - reducing the number of subjects to be passed by the student to be eligible to get his success certificate. At present, more than ten subjects have to be passed.

  - introducing an elective system, whereby students of any stream or type of education can choose from a pool of subjects, in addition to a few core subjects that they have to take.

Section Eleven

Arab Human Development Report (AHDR)

Introduction

When it was first released in 2002, the Arab Human Development Report (AHDR) was received with mixed feelings. At that time typical responses and comments included the following and similar statements:

- There is nothing new regarding the identification of the well-known social, political and economic ills in our society. Nevertheless, the report helped to better quantify such ills, and enabled us to compare ourselves with other Arab Countries.

- In practice, things are even worse than what the report tries to tell us.

- Things can't be as bad as the report tries to tell us. The report magnifies the weaknesses and underestimates the strengths.

- The report is politically driven by external, not-so-friendly forces, to justify belligerent actions against the Arab World, or to push for certain changes therein.

- Stop talking about the report, and start tackling the various issues it deals with.

Such and similar statements could be heard from all concerned, but mostly intellectual, groups in society.

The AHDR was the subject of a symposium held on 2nd Nov. 2004, on the occasion of the "Second Conference of the Arab Women Summit" that was held in Amman, 3-4 November 2004. A great number of Arab experts and intellectuals, including more than forty Jordanians, attended the symposium and discussed the various issues and findings that were dealt with by the report. More than forty recommendations marked the output of the symposium. These were grouped under four sections, namely.
- Capacity Building.
- Capacity Deployment (Investment).
- Capacity Empowerment (Liberation).
- General Recommendations.

The major issues that were tackled by the four sections included education, health, environment, child rights, women issues, ICT, civil society, literacy, employment, poverty, economic and social development, regional (Arab) efforts, R&D, public liberties, political participation, and the evils of military occupation.
The following are the major recommendations that were approved by the symposium in the field of education:
- Reforming Arab education systems within the framework of "education for all", and ensuring a ten year cycle of basic compulsory education.
- Establishing institutional frameworks for non-formal and life-long education.
- Enhancing the quality of education.
- Emphasizing the importance of "early childhood development (ECD)" and the "Rights of the Child".
- Developing a modern "information and communication (ICT)" infrastructure, and expanding the utilization of ICT in education, including "distance education".

- Improving the status of the underprivileged groups in society, especially women, through such measures and services as empowerment-based development, accumulation of human capital, education and training, health care, employment opportunities, and fair distribution of wealth.
- Establishing an Arab fund to support women activities, including training, education and capacity building of the relevant institutions.
- Promoting "Research and Development (R&D)" as well as real commitment to knowledge in society.
- Supporting scientific projects and protecting intellectual property rights.
- Universalizing education, and improving its relevance to developmental needs.
- Activating Arab cooperation in the fields of science, and outsourcing Arab scientists abroad.
- Enhancing the use of Arabic language in ICT, and supporting an Arab network of information to bridge the existing digital divide.
- Eliminating all sorts of bias against females in education, legislation, employment, etc.
- Activating the role of the media in serving the issues of sustainable human development, especially concerning "Woman's Rights".

Three other general recommendations of particular interest called for holding national (local) and regional seminars to discuss the AHDR, issuing similar reports regularly in the future, and issuing national human development reports by the Arab countries. One such regional seminar which was organized by the UNDP was held in Beirut (Lebanon) in February 2004, and was attended by a group of intellectuals and experts from different Arab countries including Jordan.

Apart from informal discussions, modest media coverage, and the above-mentioned symposium and seminar, no organised efforts of PR campaigns and strategies have so for been undertaken for the AHDR in Jordan.

Views and Responses

To explore the views and reactions of intellectuals, senior officials and academicians, concerning the AHDR, more than a hundred persons were contacted individually. The interviewees included the following categories:
- Academicians working in schools, community colleges and universities.
- Senior officials in Ministries and public institutions.
- Senior officials in the private sector and NGO`s.
- Intellectuals, such as writers, artists, etc.
- Political parties` officials.
- Media personnel.

Their views were sought regarding the following:

(i) The respondent's knowledge about the existence of the AHDR.

(ii) If the respondent knew about the report, the extent of his/her knowledge about the issues and topics it dealt with, especially in the field of education.

(iii) If the respondent knew about the report, does s/he think it is a purely academic report or politically driven one.

(iv) If the respondent didn't know about the report, what is his/her reaction when told about the major issues and topics it dealt with.

The results can be summarised as follows:

1. Just over 70% knew about the existence of the AHDR, although with varying degrees of accuracy about the issues and topics it dealt with. Nevertheless

less than 20% of the respondents did see the report or own a copy. Whatever information they had was mainly attained through the media or from peers.

Media personnel as well as senior officials in ministries and public institutions were in the forefront among those who knew about the existence of the report, while senior officials in the private sector and NGO`s were the least knowledgeable in this respect.

It is worthwhile noting that shortly after the release of the report with a limited number of copies, all copies were distributed, and no more were available. This can partially explain the limited number who own a copy

2. The great majority of those who knew about the existence of the report, including those who have seen it, knew about the general outlines, especially regarding the issues related to democracy, human rights and the like. Knowledge about educational issues was less.

   The general impression of respondents was that, depending upon the report findings, the situation in the Arab World is far behind the ambitions.

3. More than two thirds of the respondents thought that the report is a purely academic effort and not politically driven. Nevertheless, nearly half of these thought it has been or can be exploited by not-so-friendly parties for political aims.

4. Nearly all those who did not knew about the existence of the AHDR, agreed with its findings when they were told about them. Some voiced their opinion that things are even worse than these findings.

5. The great majority argued that, relatively speaking, Jordan is among the few Arab Countries who lead in many issues, such as education, health, human rights, etc.

Section Twelve

General Issues

The education system affects and is affected by many social, cultural, political and economic considerations and factors. The interface between education and these factors is what actually differentiates one educational system from the other. The following is a brief description of the general issues that are of relevance, and the relevant status of such issues in Jordan.

1. **Democracy and Education**

   Democracy of education is to some extent a reflection of democracy in society at large. The education system can be assessed as democratic if:
   (i)   it avails equal opportunities to all social groups in society: males, females, the underprivileged, the talented, the slow learners, the handicapped, the refugees, etc.
   (ii) it is organized, governed and administered by the utilization of democratic principles and processes that highlight the participatory approach to learning and that empowers the school as the basic unit and active cell in the system.
   (iii) it avails the necessary knowledge, skills and attitudes to the learner related to democratic systems, models, principles and practices through the relevant educational material as well as in-class and out-of-class activities.

   The substantial progress in Jordan vis-à-vis the first criterion (i) above is not matched by the status of the two other criteria, (ii) and (iii). The organization, governance, administration and content of the system lacks the democratic approaches, principles and processes.

2. **Unemployment and Education**

   With rates exceeding 12%, unemployment has been for the past two decades a chronic problem in Jordan, and although it is basically an economic issue resulting from the fact that the new job opportunities created by the economic growth are less than the number of new entrants to the labour market, yet the education system can contribute to improve or worsen the situation. The fact that more than 20% of the labour force in Jordan consists of non-Jordanians who are employed mostly at the basic occupational levels as skilled and limited-skills (semi-skilled) workers, coupled with high unemployment among university graduates leads to the conclusion that the education system should emphasize more the preparation of human resources at the post-basic education level in vocational areas.

3. **Poverty and Education**

   It is estimated that about 15% of Jordanians live under the poverty line. Some studies show that poverty in Jordan is due to low income as well as to unemployment. Most of the efforts undertaken to alleviate poverty are of the curative type through such measure as direct financial help, provision of loans to establish productive projects, and the provision of training services in employable skills. Preventive-type efforts for the alleviation of poverty such as tax structures, redistribution of wealth systems, legislative tools and fighting corruption are not as effective as needed. The education system can play a role in the efforts to alleviate property by promoting its relevance to developmental needs and labour market requirements, and by expanding its non-formal and adult education services that enhance the employability of the poor locally and regionally.

4. **Gender**

   The rate of participation of females is greater than that of males in almost all educational cycles. Females also predominate in the teaching profession, except in university education. Despite these positive indicators about the

gender issue in education, some weaknesses still exist, which can be summarized as follows:

(i) the great progress achieved in the participation of females in education is not matched by a similar progress in their participation in the labour market. Females constitute only 17% of the labour force, and unemployment among females is more than 50% higher than among males. The issue should be explored whether the education system can contribute to the promotion of female participation in the labour force, by enhancing its relevance to labour market needs and highlighting female employability, and emphasizing the relevant attitudinal aspects.

(ii) the rate of female participation in the teaching profession in university education as well as in post-graduate studies is low.

(iii) the participation of females in senior management positions, as well as in the membership of the relevant councils and boards is relatively low, such as in the "Board of Education", the "Higher Education Council", the "Board of Directors of the Vocational Training Corporation", and the "Technical and Vocational Education and Training Council".

5. The Economics of Education

It is well acknowledged now by education systems, including the Jordanian education system, that education is as much an investment in human capital as it is a social service and a human right. But despite this recognition, the economics of education as a concept is not fully recognised or comprehensively taken into consideration in Jordan. The following are some of the weaknesses in this respect:

- Little efforts are undertaken to evaluate the rate of return and feasibility of many educational programmes at the secondary and post-secondary levels.
- the utilization factor of many educational facilities, including schools, training centres and colleges is low and hence of low rate of return. This is due either to low number of learners or to low number of working hours.
- It is not unusual to find that in most sectors of the education system, around 90% of the current budget is spent on salaries and wages, reflecting conditions of over-employment, or lack of funds to develop the qualitative aspects of the educational processes.
- Learner-instructor ratios in many educational institutions and geographical locations are low and hence uneconomic, due to the scattered nature and lack of consolidation of facilities. More attention seems to be needed for the economics of size when planning for educational facilities and services.
- The system of government subsidies to higher education institutions is built on a formula that takes into consideration mainly the size and nature of each institution. It is not linked to the promotion of national policies and priorities or to criteria that are related to quality and relevance of outputs.

6. Human Resources

In general, the qualifications and academic standards of human resources in the education system, including teaching and administrative staff in schools, centres, colleges and universities, is basically adequate reflecting both mandatory requirements of the relevant legislative tools and the availability of an extensive network of pre-service programmes in higher education institutions. Nevertheless, three main weaknesses exist in this respect:

(i) In-service training facilities and services for basic, secondary and vocational teachers have so far been qualitatively inadequate enough and of a traditional nature. The major aspect in this respect is the need to enhance pedagogical abilities related to teaching and training methodologies. Two new developments are expected to improve the situation: the first is the introduction of a four-grade system for teachers, whereby moving up from one grade to another is conditional on fulfilling certain criteria, among which are some accredited in-service training programmes. The second development is the extensive introduction of ICT in the education system,

whereby teaching methodologies will be radically developed, especially that all teachers are required to be qualified in the new technologies.

(ii) Faculty development in higher education institutions has traditionally been a weak aspect of such education. A new development is expected to develop this aspect of human resources in universities. Faculty development centres (FDC) have recently been established through the "Higher Education Development Project" to cater for the in-service training needs of university staff in such skills as research and teaching methodologies, community extension, networking, etc. Some German assistance helped to establish these FDC`s.

(iii)The recruitment procedures and employment criteria to the teaching profession in public pre-university education are not merit-oriented or test-based. The Civil Service Bureau administers the employment procedures in response to the needs presented by the Ministry of Education. The number of years since graduation, and the applicant's performance at the university are the main criteria, resulting in mass appointments in the MOE every year without effective screening or filtering.

(iv)Special groups of human resources, especially in pre-university education, need special attention and emphasis in the field of in-service training. Such groups include: school principals, supervisors (inspectors), school guidance and counseling officers, and administrative staff. These groups are not well-taken care of in existing in-service training efforts.

7. Funding

Jordan spends about 6% of its GNP on education and 15% of its annual budget on government sponsored education. Percentage-wise these are favourable figures according to world standards, but in absolute figures they fall short of the financial needs that would respond to the quantitative and qualitative needs of the education system. An important part of the gap is bridged by external funding through loans and grants.

Substantial increase in national spending on education is not a feasible suggestion due to other pressing national needs. Any major moves in this respect, apart from external funding that has its own limitations, should concentrate on promoting the economics of education by rationalizing expenditure and increasing the rates of return on educational services. Major aspects to be tackled in this respect include:

- overemployment.
- learner-instructor ratios.
- The scattered nature and small size of schools.
- utilization factor of educational facilities.
- diversification of funding resources, and increasing the role of the private sector, NGO`s and learners in this respect.

8. Role of the Non-Government (NG) Sector

When considering the involvement of the non-government sector in education, twp groups of stakeholders can be identified: the private sector which is usually a for-profit sector in the various fields of the economy, and the NGO sector including philanthropic and voluntary organizations and civil society at large, including the learners themselves and their families. Both these groups are active partners in the Jordanian education system.

The role of the non-government sector in education is characterised by a number of strengths and weaknesses as shown hereunder:

(i) The relatively high level of participation of the NG sector in education on the implementation level is not matched by a similar level of participation on the policy making and planning level, despite the representation of this sector in the membership of the relevant boards and councils.

(ii) The role of the NG sector is weak in the evaluation and assessment of the outputs of the education system and, in particular, the assessment and certification of the graduates whom they will employ. The need to

strengthen such a role is more obvious in the case of TVET systems, some of which are jointly implemented by both government and non-government partners.

(iii) The role of the NG sector on the implementation side of TVET is almost exclusively limited to the cooperative (dual) system of VET, and is minimal in the school system.

(iv) Despite the active role of the voluntary NGO sector in the provision of educational services for special groups such as the handicapped and the underprivileged, only a small percentage of such groups are provided with the necessary educational and training services.

(v) Learners and their families bear the full cost of their education in educational institutions that are run by the private sector, whether for-profit or not-for-profit. This applies to private universities, community colleges and schools. The relatively high cost involved and the lack of an effective system of student funds and loans, render such institutions accessible mainly to the economically able to the detriment of those who can't afford to pay for the services, thus reflecting negatively on the democracy of education. Student funding schemes that are available for this purpose are provided by some NGO`s and through some trust-funds that are established by individuals, but the size and impact of such efforts are small.

(vi) The role of the NG sector in funding educational services is manifested in many aspects:
- Learners fund the cost of their education fully in private educational institutions including universities, community colleges, schools, and non-formal and adult education centres. Furthermore, learners fund less than half the cost of their education in public higher education institutions.
- Employers in share-holding companies participate in funding TVET through a special fund to which they contribute 1% of their profits.
- Employers who participate in apprenticeship (cooperative or dual) schemes that are administered by the Vocational Training Corporation participate in funding the relevant VET programmes through meeting the cost of the on-the-job element of such programmes in addition to paying reduced wages to apprentices.
- Despite the small role of the voluntary NGO sector, such sector provides subsidies or free educational services to special groups, especially at pre-school and pre-university education. This sector has also a small role in student funding schemes in higher education, as mentioned earlier.

(vii) Human resources development through in-service training for the staff and employees of educational institutions is a relatively well-established activity in the education system, albeit with some weaknesses as mentioned elsewhere in this report.

9. Empowerment of Schools

Schools are in general marginalised to a great extent in the Jordanian education system. Major educational policies, decisions and processes are managed centrally, including funding, staff recruitment, curricula, textbooks, legislation and regulatory tools. Minor improvements in this respect were initiated in the late eighties and early nineties of the last century. Such improvements included some administrative and financial aspects. The following are some areas where credible breakthroughs can be introduced:
- Administratively, school principals should be invested with more authority.
- Financially, schools should be entrusted with enough funds under their control, to take care of a good part of the operational needs.
- Schools should be mandated to be income-generating institutions through the various services they can provide to the community. Such income should be under the full control of the school.

- The "School Fund", which was operational for a short period in the early nineties of the last century but phased out because of the lack of funds, should be re-established. Sustainability can be ensured through a permanent budget item to feed it financially. Through this fund, which can be administered nationally at the Ministry headquarters level or locally at the directorates of education level, schools can compete to secure non-refundable amounts of money to finance developmental projects that they propose. Such projects should fulfill certain criteria that promote innovation, initiative, community linkages, teaching environment, etc.
- Although, it is not practical at this stage to give schools a substantial role in the field of curricula and textbooks, they can be mandated to choose from more than one textbook that would have been approved centrally. Schools should also be mandated to offer enrichment educational programmes and activities.
- Similarly, although it is not practical at this stage to give schools a major role in the hire and fire of staff, especially that such role is even outside the mandate of the Ministry itself since it is the Civil Service Bureau mandate, schools can be entrusted with a much greater role in the various aspects of personnel affairs including evaluation, disciplinary measures, etc.
- Decentralisation of the education system, which has been under consideration for some time in Jordan, should be interpreted as to permeate all levels of responsibility, including the school itself, and not only to transfer some power and responsibilities from the Ministry headquarters to the local (field) directorates of education.

10. Information and Communication Technology (ICT)

Interest in introducing ICT on a systematic level in the education system started in the late eighties of the past century. Nevertheless, the big drive in this respect had to wait until the beginning of this century when enough financial resources became available to fund the relevant items of expenditure including hardware, software, and HRD. This coincided with the national interest manifested by the establishment of an ICT Ministry and the multi-dimensional moves towards the e-government. The following are the major efforts in this respect:

- ICT constituted one of the major components of the "Higher Education Development Project" (HEDP) (2000-2005), with the objective of updating the MIS capacity and networking of universities, community colleges and the Ministry of Higher Education.
- ICT constituted one of the major components of the "Education Reform for the Knowledge Economy (ERfKE)" programme (2004-2008), with the objective of introducing ICT in all schools of the country. Areas of development included hardware/software facilities, teacher and staff training, curriculum development (e-learning) and networking.
- ICT disciplines, including computer science, information technology, computer engineering, etc are being taught by all Jordanian universities and many community colleges. About twenty thousand students are enrolled in such disciplines at first, second and third level degrees in universities.
- ICT is taught in schools as a compulsory subject for grades 7 to 12. In addition, acquiring basic ICT skills is compulsory for all teachers in the Ministry of Education.
- Information Management has recently been introduced as one of the streams in secondary education side by side with other academic and vocational streams.
- The percentage of Jordanian families that own a computer or have access to the internet is about 25% and 10% respectively.

11. Human Resources Information Systems (HRIS)

Until recently, an adequate system for human resources information that covers both the supply and demand sides was lacking. In 2001, a major effort

was initiated through "Al-Manar Project" which was funded jointly by the Jordanian Government and CIDA to address this need. The system is now operational in cooperation with the major stakeholders and information providers. Box No. (16) shows details of this project.

Box No. (16) Al Manar Project (2001-2008)

Al Manar aims to improve the collection, analysis and dissemination of Human Resources information to make the Jordanian work place more transparent. The Project was funded by Canadian International Development Agency (CIDA) during its pilot phase and the current one.

Objectives :
I.   To enhance the development and utilization of Jordanian human resources in support of national economic development in a globally competitive environment.
II. To ensure that labor market decision making by institutions, employers and prospective employees (men and women) are made on the basis of comprehensive, timely and regularly updated gender sensitive information systems that are supported by continuous technical and internet-based services.

Components:
1.   Human Resources Information (HRI)
   The Human Resources Information system (HRIS) component aims at creating a specialized national HRI database, maintaining and updating the database, and coordinating among HRI producers and users.
   The HRI database will be used for conducting policy research, HRD planning, evaluation and monitoring HRD projects, HRD policy evaluation and sectoral governance reform.
2.   Electronic Labor Exchange (ELE)
   The Electronic Labor Exchange (ELE) is an electronic employment service that matches work to people and people to work. Using a checklist, employers create a profile of the position they need filled, identifying the skills, education and experience they are looking for. Job seekers create similar profiles, using a skill checklist to describe their skills, education and experience. The Electronic Labor Exchange uses this information to make a match.
3.   Professional Career Counseling (PCC)
   An internet-based, professional career counseling system, which provides both counselors and individuals with on-line career development and counseling tools and access to accurate human resources information.
   The wide use of PCC will lead to knowing individuals' interests, values, skills, and personal traits, explore the career possibilities for people and how to find out which occupation they will like ? and guide them for the career that will match the skills and abilities that they have gained by practice and knowledge

Project Cost
The project value is 2 and 3 million Canadian dollars for the pilot and basic phases respectively, made available through a grant from CIDA.

Implementing Agency
The National Center for Human Resources Development.

12. Regional Cooperation

Jordan is considered one of the leading countries in the field of education in the region (Middle East and North Africa). Regional cooperation in this field takes place both through bilateral arrangements as well as through regional agencies and organizations, the most prominent of which are:

- "Arab League Education, Culture and Science Organisation (ALECSO)", in Tunis (Tunisia).
- "Islamic Education, Science and Culture Organisation (ISESCO)", in Rabat (Morocco).
- "Arab Universities Union", in Amman (Jordan).
- "Arab Labour Organisation (ALO)", in Cairo (Egypt).
  (involved mainly in vocational education and training).
- "Arab Union for Technician Education", in Tripoli (Libya).
- "Arab Organisation for Administrative Sciences", in Cairo (Egypt).
- "Arab Education Office for the Gulf Countries", in Riyadh (Saudi Arabia).

Major areas of cooperation in the field of education, in which these organisations are involved include:

(i) Conferences, seminars, workshops, etc.

(ii) Publications, covering such areas as strategies, issues, subject matter, and proceedings of conferences.

(iii) Human resources development, through structured training programmes.

On the bilateral level, Jordan has educational/cultural agreements and relations with most countries of the region. Thousands of Jordanian teachers wok in, or are seconded to, many Arab Countries, especially Gulf Countries. Jordanian experts in the various fields of education can be found in many Arab Countries. On the other hand, Jordan benefits from various regional sources of funding for the development of education, mainly in the form of loans. Major such sources include:

- Arab Fund for Social and Economic Development.
- Islamic Development Bank.

Section Thirteen

German Cooperation: Areas and Issues

Building on the needs and priorities of the education system, that were highlighted in the previous sections, German cooperation and assistance can be explored and rationalised by highlighting the following areas and issues. For better assessment of such areas and issues, they should be explored side by side with the aforementioned "needs and priorities".

Human Resources Development (HRD)

German cooperation and assistance to the Jordanian education system in the field of HRD can target the following activities and areas:

- Accessibility of German higher education institutions and services, especially in the field of post-graduate studies, to Jordanian students, through different scholarship and non-scholarship schemes. Some priority areas in post-graduates studies include applied sciences, ICT, Law, etc.

- HRD in the field of research in Jordanian universities. Support in this field can be secured through:

  o Exchange of German and Jordanian researches.

  o Secondment of German researchers to Jordanian universities and vice-versa.

  o Involvement of German and Jordanian researchers on common research projects.

- Supporting the "Faculty Development Centers" that have recently been established in universities to avail in-service training and development services and facilities for the academic staff. German support has already taken place on a small scale.

- HRD in the newly established "National Institute for the Training of Trainers" to support TVET institutions, including community colleges, vocational schools, training centres and enterprise training units. Such support can include:

  o Staff development, especially trainers of trainers.

  o Training materials development, such as in-service training modules and packages.

  o System development, as referred to elsewhere.

- Supporting the on-going efforts to update and develop the system of in-service training for staff of pre-university education institutions including kindergartens, basic education, secondary education and special education. Support in this field can be secured through:

  o Staff development, especially trainers of trainers.

  o Training material development, such as in-service training modules and packages.

  o System development, as referred to elsewhere.

Facilities Development

German cooperation and assistance in the field of facilities development can be secured by contributing to the funding and financial needs, through loans and/or grants, for the construction and equipping of new educational facilities for pre-school, basic, secondary (academic and vocational) and higher education, as

specified in national development plans and strategies, to enable the education system to cope with the expected quantitative expansion of the student body at the rate of about 2.5% for pre-university education, due to population rise, and to respond to the need to replace rented facilities and phase out double-shift practices in schools.

System Development

System development is an important component of all efforts that target the reform and development of the education system. German cooperation and assistance in this field can be directed to the following activities and areas:

- The development of the whole governance system for pre-university education to promote such aspects as:
  o decentralization.
  o empowerment of local authorities and schools.
  o accountability.
  o local and central monitoring, evaluation and supervisory services.
  o legislative tools and regulations.
  o funding systems.
  o involvement of the private sector and civil society.
  o guidance and counseling services.

- The development of the whole system of in-service training for pre-university and higher education, including such aspects as mentioned above in addition to testing and certification.

- The development of the whole system of non-formal and adult education, including such aspects as mentioned above.

- The development of the system of special education, including such aspects as mentioned above.

- Establishing twinning arrangements among German and Jordanian higher education institutions.

Technical and Vocational Education and Training (TVET)

German TVET systems are well known for their quality and relevance. German cooperation and assistance in this field can play a significant role in the development of TVET in Jordan in such areas as:
- standards.
- curriculum development.
- testing and certification.
- governance and systems.
- role of the private sector and civil society.
- employment services.

This is in addition to supporting the quantitative expansion of the system in terms of facilities and equipment.

Higher Education

The higher education sector in Jordan, including universities and community colleges, can benefit from German cooperation and assistance in the following areas:

- The updating of the accreditation and quality assurance systems of higher education institutions.

- The development of modern Management Information Systems (MIS) and networking among higher education institutions.

- The development of the whole governance system for intermediate university education in community colleges, to promote such aspects as:

- o Funding systems and sources.
- o Enrolment policies.
- o Channels with university education.
- o Autonomy and institutional empowerments.
- o Non-formal programmes.

- Legislative frameworks, especially regarding the accountability of private institutions to both the Ministry of Industry and Trade and the Ministry of Higher Education and Scientific Research.

- Labour market relevance, and partnerships with employers.

General Examinations

German cooperation and assistance for Jordan in the field of general examinations can target such areas as:

- The structure and governance of the examination system.
- Quality and comprehensiveness.
- Human Resources Development.

Special Education

The priorities of special education needs in Jordan, where German cooperation and assistance can be of great benefit, cover the slow learners and handicapped as well as the talented. The needs are of a quantitative as well as a qualitative nature. The expansion of the relevant services and facilities and the qualitative development of such services should be aimed at.

Approaches and Channels

German assistance to Jordan in the field of education can utilize three major approaches and channels. These are:

(i) Bilateral arrangements between the two countries. In Jordan this is usually initiated through the Ministry of Planning and International Cooperation.

(ii) The regional approach, whereby more than one country in the region are targeted by German assistance.

Box No. (17) Shows an ongoing project that utilized the regional approach.

(iii) Through European agencies and networks, such as the European Training Foundation and similar bodies. This approach can utilize the bilateral approach as in (i), or the regional approach as in (ii) above.

Box No. (17): Regional Cooperation of Selected Arab States in the Sector of Vocational Education and Training (TVET)"

Project goal:
The project goal is to contribute to the improvement of economic growth and employment in the Mashreq-Region and related countries by enhancing the quality of vocational training in conformity with the requirements of the labour market and the employment prospects of school leavers and other young persons.

Project Purpose:
Strengthening of regional cooperation in the field of technical and vocational education and training through enabling the participating countries to benefit from development and results of vocational training systems in neighboring countries for the advance of their own systems. In addition, through intensified communication about regional standards in vocational training, the exchange of respective instruments, reduction of costs of vocational training, etc, the project is to contribute to more flexibility of the labour markets, and an improvement of chances and opportunities of training in the countries involved (Egypt, Jordan, Lebanon, Palestine, and Syria).

Project duration and phases:
The total project duration is eight years (2002-211), and is divided into three phases:

The Objective of the Initial Project Phase:
The first project phase (April 2003-March 2006) objective is to install a consultative network for regional cooperation in the field of (TVET) between the participating countries through which contributions will be made to the improvement of the economic, social, cultural and political development in the region.

Funding Organization:
The project is supported by the Government of the Federal Republic of Germany. For the implementation of the first phase of the project an amount of € 2 Million has been allocated in addition to in-kind contribution of the participating countries (Egypt, Jordan, Lebanon, Palestine, and Syria).

Areas of interest:
1.   Testing and Certification and Accreditation
2.   Teacher/Instructor/Supervisor Training.
3.   Standards for TVET
4.   Curricula: Competencies of a Workforce in a Knowledge Society
5.   TVET Systems Development

Lead Country: Jordan

Project Office Location: National Center for Human Resources Development

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Obstacles and Pitfalls

German cooperation and assistance efforts are expected sometimes to encounter some obstacles and pitfalls regarding approaches, methodologies, type of projects, etc. Such potential obstacles have to be looked into carefully and taken into consideration at the preparation and design stages of cooperation activities and projects. The following is a brief description of each of these obstacles and pitfalls:

1. Legislation
    The lack of an appropriate legislative umbrella or the inadequacy of existing legislative tools stand in the way of developmental and reform efforts. Sometimes, existing legislation hampers such efforts. The consequences can be most apparent in the area of system development and sometimes, in HRD. Enacting new legislative tools or amending existing ones is frequently difficult or time consuming.

2. Absorption Capacity

   It happens sometimes that the size and nature of cooperation projects and programmes exceed the absorption capacity of the concerned agency. This can take place when the material or technical resources that are available are beyond the local capacity to utilise such resources.

3. Model Borrowing and Adoption

   The adoption of specific models that are borrowed from outside without taking into consideration local conditions from the social, cultural, political and economic perspectives, and hence without tailoring projects and programmes to local needs and environment.

4. Ownership

   Weak involvement of experts and institutions of the recipient country in the design, implementation and follow-up of projects and programmes can reflect negatively on the success, impact and sustainability of the relevant outcomes , because of the absence of ownership feeling.

5. Sustainability

   When local funding and institutional involvements for cooperation projects and programmes are weak, the problem of sustainability of such programmes creeps in. The danger of phasing out cooperation programmes when external involvement comes to an end is not infrequent. To avoid such a danger, the sustainability issue should be taken into consideration in the design stage of cooperation projects.

6. Assessment and Evaluation

   Cooperation projects and programmes are usually subjected to evaluation during and at the end of implementation. Such evaluation efforts at their best assess outputs and outcomes, but not impacts. Impact evaluation can be implemented usually long after the cooperation programme comes to an end, with the result that it is rarely implemented.

7. Time-Frames

   Sometimes, the time frame for the duration of cooperation projects and programmes are not long enough to have a significant impact or sustainable outcomes. Time-frames should therefore be carefully studied, taking into consideration the nature and objective of the relevant programme.

8. Regional Projects

   Cooperation projects and programmes that target a group of countries in a region have the advantage of maximising benefits and rates of return. Nevertheless, such efforts face some obstacles and risks, including:
   • choice of programme headquarters and (sometimes) the lead country.

   • Coordination procedures among the concerned countries.

   • Choice of activities and programmes that are of common interest.

9. Funding

   To be successful, cooperation projects and programmes should be adequately funded, preferably from both external and local sources. Inadequate funding systems reflect negatively on the quantitative and qualitative outputs of such programmes.

10. Donor Coordination

    It is usual that more than one donor implement their cooperation programmes in the same country within the same sector, running the risk of duplication, waste of resources and lack of institutionalization. The problem gets more serious if the concerned country is also neglecting the coordination function for lack of expertise, capacity or will.

11. Resistance to Change

    Resistance to change, if it exists, is usually indirect, silent and of an attitudinal nature. Positive and/or negative incentives help to minimize the relevant

negative consequences. The nature of cooperation projects and programmes define the potential groups that are expected to lead the resistance. The following are some examples:

Potential Resisting Group	Nature of Project or Programmes
Teachers/instructors	• curriculum development • teaching and training methodologies
Parents	• funding policies • testing and examinations
Private Sector	• funding policies
Administrators	• system development • legislation • decentralisation

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