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ABSTRACT

One of a series of studies on the development of technical and vocational education in the member states of UNESCO, this report profiles the educational system in Iran. The six parts of the document provide information about the following: the country; the educational system; fundamental change in the new system of secondary school education, including technical and vocational education; a snapshot of the educational system in August 1993; the historical development of the technical vocational education system; and non-formal training by the Ministry of Labor and Social Affairs. Some of the highlights include the following: (1) the education system in Iran is undergoing revolutionary reform in terms of philosophy of education with its aims, goals and objectives, administrative and management structures, curricular design and development, with major implications for the future; (2) the present system consists of 1-year kindergarten, 5-year primary school; 3-year guidance school, and 4-year secondary academic school as well as secondary vocational and technical education; (3) under the new system, secondary education will be 3 years long; (4) there are two types of higher technical and vocational institutions, which select their students among graduates of technical and vocational high schools and offer post-diploma certificates to their graduates; (5) the teaching staff usually have industrial training and workshop instructors have long industrial experience; and (6) there is flexibility for students to move from one stream to another in the new educational system. (KC)

NATIONAL PROFILES IN TECHNICAL AND VOCATIONAL EDUCATION IN ASIA AND THE PACIFIC

Iran

UNEVOC

International Project on Technical and Vocational Education

NATIONAL PROFILES IN TECHNICAL AND VOCATIONAL EDUCATION IN ASIA AND THE PACIFIC

Iran

Asia-Pacific Centre of Educational Innovation for Development
ACEID
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FOREWORD

Technical and vocational education has always been an important component of UNESCO's consecutive Medium Term Plans. The basic objective of this programme is to support the efforts of Member States to link education systems more closely to the world of work and to promote the expansion and improvement of technical and vocational education in the light of changing employment needs.

The Colombo Plan Staff College for Technician Education (CPSC) also dedicates itself primarily to enhancing the growth and development of the technician education systems in its member countries which are located in the Asia and Pacific region. Its programmes, projects and activities are geared to provide the needed impetus for the professional development of senior level personnel involved in technician education development efforts.

UNESCO has launched an International Project on Technical and Vocational Education (UNEVOC) as of 1992 in co-operation with the Government of Germany, ILO, FAO, UNDP and NGOs interested in the reform of technical and vocational education. This project focuses on exchanging information, research and experiences on policy and programme issues in technical and vocational through a network of co-operating institutions.

In a spirit of co-operation between UNESCO and CPSC, under UNEVOC, an attempt is being made to compile and publish studies on the development of technical and vocational education in Member States in the form of TVE profiles of 21 countries. It is hoped that this series will serve as a handy reference information on TVE systems, staff development, technical co-operation and information networking. These studies have been possible because of the full co-operation to UNESCO PROAP and CPSC by all concerned in the Member States.

The opinion expressed in this study are those of the authors and do not necessarily reflect the position of UNESCO and CPSC in this regard. This profile on Islamic Republic of Iran was prepared by Prof. MMR Siddiqi, Seconded Faculty Member to CPSC by the Government of Bangladesh.

C.K. Basu
Director, CPSC

Victor Ordonez
Director, UNESCO PROAP

OVERVIEW

The Islamic Republic of Iran, having an area of 1,648,000 sq. km. and a population of about 50 millions is characterized by great contrast in terrain from dense forest, woodlands, valleys and ravines to vast expanses of shining plains. On account of arid climate and mountainous terrain, Iran has limited regions for agricultural exploitation. Iran is one of Middle East's reservoirs of oil. In addition, other mineral deposits are extensive including iron, coal, copper, lead, manganese, borax, nickel, cobalt and precious stones. Petro-chemicals are the latest industrial products. Iran's chief exports are petroleum, carpets, dried fruits and caviar and imports are textiles, sugar, metal products and machinery. About 98.5 per cent of the population is Muslim, most of whom belong to Shi'a sect.

The education system of Iran is undergoing revolutionary reforms in terms of philosophy of education with its aims, goals and objectives, administrative and management structures, curricular design and development, etc. with major futuristic implications. The present pre-college educational system (undergoing gradual changes) consists of one-year kindergarten, five-year primary school, three-year guidance school, and four-year secondary academic school as well as secondary vocational and technical education. Under the new system, the duration of secondary education is three years. In other words, pre-college education will consists of 11 years of formal schooling.

Technical/vocational education starts after guidance school as a separate stream in the secondary schools. It is also of four-year duration. It is divided into three branches of Technical, Agricultural, Business and Vocational. The students receive their diplomas after successful completion of the requirements in one of the areas.

There are two types of Higher Technical and Vocational Institutions such as (a) Technical Colleges or Institute of Technology and (b) Technical/Vocational Teacher Training Institute/Centres. These institutes select their students among graduates of technical and vocational high schools and offer post-diploma certificates to their graduates. The graduates of the Technical Colleges can be compared with the technicians of other countries. The Colombo Plan Staff College primarily caters to the needs of these institutes.

The number of students of the 22 Technical Colleges is about 30,000. Technical Colleges offer courses in all engineering specializations especially in mechanical, electrical, electronics, computer, chemical, building/civil engineering, wood industry, textile, metallurgical, mining, etc.

The graduates of Technical Colleges receive their post-diploma certificates (after 2.5 years) called 'high technician'. The specialization starts at the beginning of the course and the curriculum is mainly engineering practice oriented.

The teaching staff usually have industrial training and workshop instructors have long industrial experience. The colleges also organize in-plant group training courses for industry staff and establish fruitful links with industry.

The graduates of the technical/vocational teacher training centres, upon completion of their studies, can be employed by the Ministry of Education as teachers of technical and vocational high schools.

Under the new system, which is gradually implemented, the secondary schooling will be for three-years followed by pre-university course of one-year. Accordingly a three-year secondary schooling leading to diploma in technical/vocational education will be introduced. One integrated Associate Degree of five-year duration after guidance cycle in technical/vocational education has been designed for implementation. In addition, a two-year Open Associate Degree in technical/vocational education after secondary schooling will also be introduced. The graduates of both of these types of institutes are comparable to technicians in the industrial world.

The course under Kar-Danesh (work-knowledge) aims to produce semi-skilled workers, foremen and supervisors. Pupils can get their second degree skill certificate (i.e. National Skill Standard II) after they have passed 32 units of skill modules or get their 'first degree skill certificates' (i.e. National Skill Standard I) after passing 48 units of skill modules. They can also get their diploma in the same field provided they can pass 48 units of general subjects.

There are provisions of adequate flexibility for lateral movement from one stream to another in the new educational policy. This will make the design of 'core' and specialized curriculum extremely difficult.

In addition to formal systems of technical and vocational education, there are provisions of non-formal training by the Ministry of Labour and Social Affairs. The training is imparted by the Technical and Vocational Training Organization (TVTO) in their centres spread in different parts of the country or in co-operation with the industries.

The Department of Technical and Vocational Education is headed by a Vice Minister who is responsible for planning and management of the entire formal TVE activities in the country. The major five bureaus under this department relate to technical education, vocational education, agricultural education, higher education and KAD plan.

Part I

GENERAL INFORMATION

1.1 Physical Geography

Iran covers an area of 1,648,000 sq km bounded on the north by the former Soviet Union and the Caspian Sea, on the east by Afghanistan and Pakistan, on the south by the Persian Gulf and Oman sea, and on the west, by Iraq and Turkey. Iran is a plateau 3,300 ft above the sea level. Near Tehran, its capital, is the mighty Alborz Mountain range, of which the highest peak is Mt. Damavand, rising 18,000 ft above sea level. Iran is characterized by great contrast in terrain from dense forest, woodlands, valleys and ravines to vast expanses of shinning plains.

On account of arid climate and mountainous terrain, Iran has only limited regions for agricultural exploitation. Of the total area of Iran (160 million hectares) about 20.7 per cent is desert and unsusceptible land, 54.9 per cent natural pastures, 7.6 per cent forest land and only remaining 14.4 per cent is potentially arable land, of which 11.6 million hectares go annually under cultivation and the rest lie fallow.

1.2 Demography

According to the general census in 1986, the population of Iran is about 50 million. Of this number, about 27 million (54 per cent) are urban residents and about 23 millions (46 per cent) are inhabitants of rural areas. The greater part of urban residents live in big cities. The population of Iran has a relatively high growth rate of about 3.9 per cent. More than half of country's population is the active group within the age levels of 15-64, while about 46 per cent of the total population are under 14 years of age. Thus, considering the age composition, the population of Iran is one of the youngest among the countries of the world. From the viewpoint of occupation, about 29.2 per cent are engaged in agriculture, 25.3 per cent in industry and 42.3 per cent in other services.

1.3 Religion

The official religion, in accordance with Article 12 of the Islamic Constitution, is the Jafari faith of the 12 Imams. About 98.5 per cent of the population is Muslim, most of whom belong to Shi'a sect. The total number of Iranian religious minorities is about 305,000 of whom 97,500 are Christians, 26,000 Jews, 91,000 Zoroastrians, and 90,000 are followers of other faiths.

1.4 Economic Geography

Iran is one of the Middle East's reservoir of oil. In addition, other mineral deposits are extensive, including iron, coal, copper, lead, manganese, borax, nickel, cobalt and precious stones. Petro-chemicals are its latest industrial products.

Agriculture is a prime industry in Iran. Wheat, barley, corn, rice, fruits, gums, wool, tobacco and cotton are the chief agricultural products. Khorassan province is famous for the quality of its wool. Carpets, all hand loomed, are produced in Mashhad, Tabriz, Arak, Isfahan, Kashan and Kerman provinces.

Iran's chief exports are petroleum, carpets, dried fruits, caviar, gums, hides and rice; its imports are textiles, sugar, meat, metal products and machinery. The recent years witnessed the development and expansion of numerous industries such as cement, plastics, refrigeration, food industry, soap, detergents, pharmaceuticals, automobiles, etc.

1.5 Government

The government of Iran is an Islamic Republic which the nation of Iran (based its eternal belief in a government of truth and justice of the Holy Qu'ran, following the victorious Islamic Revolution led by Imam Khomeini) affirmed in the National Referendum held on the 30 and 31 March 1979 with a majority of 98.2 per cent of those who had the right to vote.

The Islamic system is based upon two pillars: the people's vote and God's commandments. The three sovereign powers in the Islamic Republic are the Legislative, the Executive and the Judiciary which are exercised under the supervision of religious leadership (Imamate). These three powers are independent from each other and the President is the link between all three of them. The presidency is the highest official position in the country after that of the Leader.

With the view of ensuring that the decision of the Assembly does not ignore Islamic precepts and principles of the constitution, a Guardian Council has been set up. Article 30 of the Islamic Republic Constitution states that education, including physical education, are free for all Iranians. The government is responsible to provide educational opportunity up to secondary school level for all Iranian students.

Part II

EDUCATIONAL SYSTEM IN IRAN

2.1 The Structure

The pre-college educational system of Islamic Republic of Iran consists of a one-year kindergarten, 5-year primary school, 3-year guidance school and 4-year secondary academic school, as well as secondary vocational and technical education. (Figure 1)

2.2 Pre-School Education

The pre-school education is a one-year period in which five-year old children are prepared for the primary stage. (Ministry of Industry, 1992, pages 45-59) Furthermore, in the bilingual areas, where Persian is not the mother-tongue of children, they will be taught the Persian language. The main objectives of pre-school education (kindergarten) are as follows:

1. Contributing to physical, mental, emotional and social growth in young children, based on religious and ethical principles.
2. Developing the abilities and talents of students in order to prepare them for future studies.
3. Preparing children to comprehend scientific concepts more easily.
4. Spreading the Persian language, particularly in the provinces with different native languages.
5. Preparing children for social relationships and co-operation.
6. Helping families with low incomes by creating a safe educational atmosphere to train their young children.

2.3 Primary Education

Primary education is the first stage of formal education, which lasts five-years and includes children between 6-10 years of age.

The main objectives of elementary education are as follows:

1. Creation of a favorable atmosphere for 'purification and moral superiority of students'.
2. Development of students' talents and their creative abilities.
3. Development of students' physical strength.
4. Enabling the students to read, write, and upgrade their calculating skills and providing necessary training on proper social behaviour.

5. Instruction for individual hygiene and providing necessary advice on how to behave at home as well as in the society.

2.4 The Guidance Cycle

The guidance cycle takes three years for children from 11 to 13 years of age. In this cycle, the students become familiar with sciences to readily find their area of interest and be able to choose their field of speciality in the secondary school. The main aims of the guidance cycle are as follows:

1. Developing the students' moral and intellectual abilities.
2. Increasing students' experiences and general knowledge.
3. Helping students to continue the habits of discipline and scientific imagination which have been taught in elementary school.
4. Distinguishing individual preferences and talents in students so that they may be directed towards suitable studies and professions.

2.5 Secondary Education

The secondary education comprises a four-year formal schooling for children from 14 to 18 years of age. After successfully passing the courses of the guidance cycle, pupils continue their studies in one of the many areas of the secondary level.

The main aims of the secondary education are as follows:

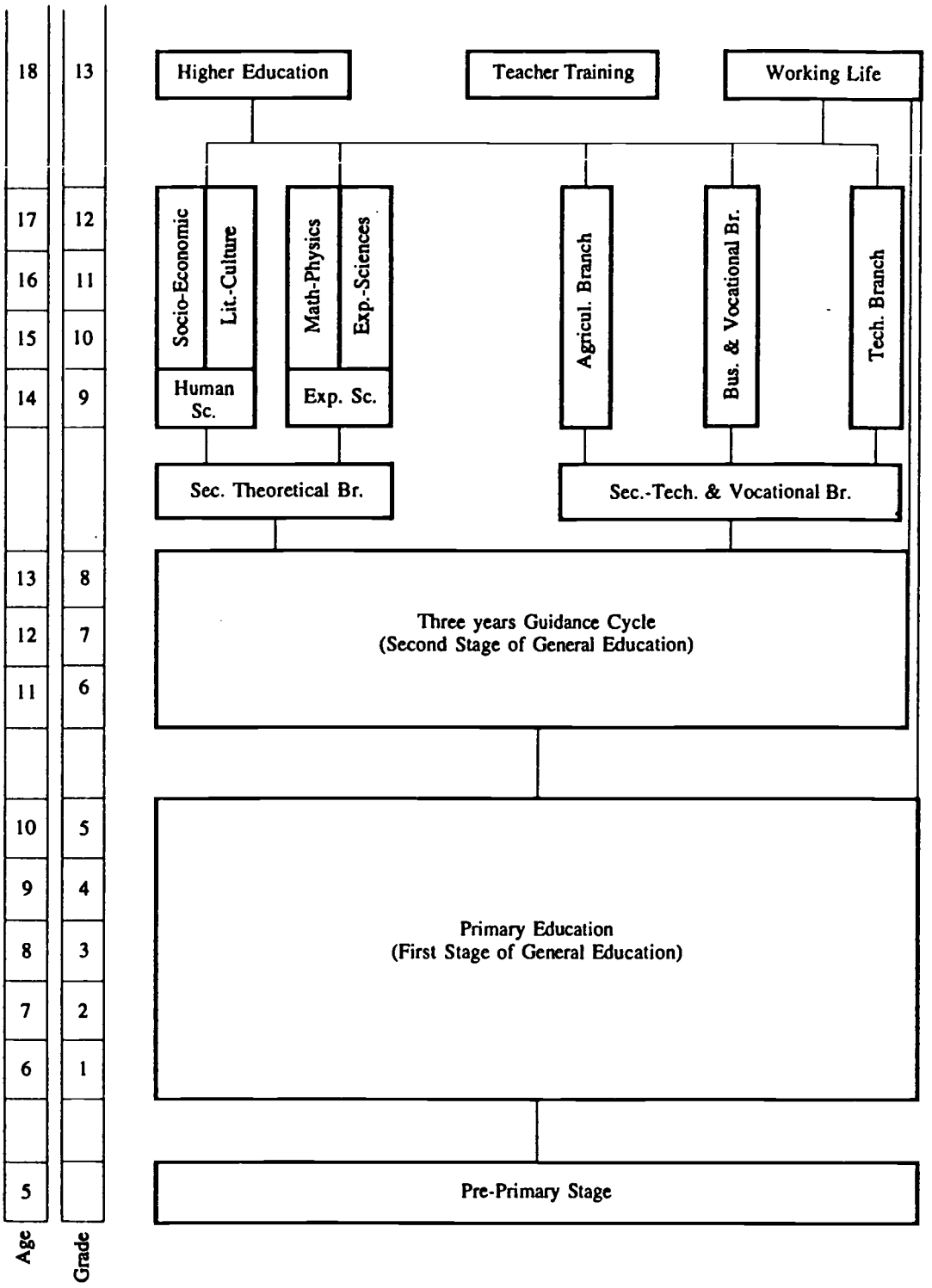
1. Developing moral, intellectual, spiritual and physical abilities of students.
2. Helping students to detect their talents and abilities so that they can be assisted in choosing their future education and professions.
3. Upgrading and strengthening one or more skills in each student according to individual attitude and ability, so as to lead each student towards a profession.
4. Prepare the students for higher education in the universities, in order to gain the technical and scientific skills needed by society.

Secondary education is basically divided into theoretical (academic), and technical and vocational domains. The theoretical programme of the high school is divided into two major fields of experimental sciences (which consists of mathematics - physics and experimental sciences sub-fields) and humanities (which consists of literature, culture and socio-economic sub-fields). Hence those who take the theoretical courses will receive a diploma in one of the four mentioned fields after four years of study.

2.6 Technical/Vocational Education

The technical-vocational education programme is also of four years duration. It is divided into three fields, i.e. Technical, Agriculture, Business and Vocational.

Figure 1. The Educational System of the Islamic Republic of Iran



Students obtain their technical diplomas after having successfully completed the courses of Technical Field in one of the following areas: construction, electricity, electronics, communication, and electrotechnics, general mechanics - (mine machinery), casting and metal melting, air-conditioning and refrigeration, heating system, metal work, machinery, design and welding, automechanics, weaving and dyeing, ceramics, nautical industry (ventilation, electronics and communications, electromechanics, engine mechanics, fishing and commercial shipping), printing, chemical industry and wood work (model making, carpentry and internal decoration).

The agricultural field consists of the following sub-fields: general agriculture, food industry, rural management and farm machinery. Some of the above subject areas are offered by the Ministry of Education, while the others are conducted by the agricultural schools of the Organization of Agricultural Education affiliated to the Ministry of Agriculture. The students of agricultural schools are selected from among the Guidance Cycle graduates, who are qualified for entering this field. Since the agricultural schools are boarding schools, the students are offered facilities such as food and accommodation. The duration of academic year is eleven months, with nine month of theoretical and practical courses and two months of working in the fields. After four years study the students gain the following skills:

a) Practical knowledge on crop production process, such as planting, growing and reaping.
b) Planting vegetables and trees, grafting, and propagating.
c) Applying the methods for plant protection.
d) Land cultivation, harvesting, maintenance of agricultural machinery.

In the field of business administration, and vocational training the students take both theoretical and practical courses. During the study, the student visit the vocational training centres and pertinent workshops. In addition to the above, the students should take a two month practical training in a public or private centre after their graduation.

2.7 Higher Institutes of Technical and Vocational Education

There are two types of Higher Technical and Vocational Institutions such as (a) Technical Colleges or Institutes of Technology and (b) Technical-Vocational Teacher Training Institutes/Centres. These institutes select their students among graduates of technical and vocational high schools and offer post-diploma certificates to their graduates. The graduates of the Technical Colleges can be compared with the technicians of other countries. The Colombo Plan Staff College primarily caters to the needs of these institutes.

The number of students in 22 Technical Colleges is 30,000. Technical Colleges offer courses in all engineering specialization especially in mechanical/machine engineering, electrical, electronics, computer, chemical, building/civil engineering, wood industry, textile, metallurgical, mining, etc.

The graduates of Technical Colleges after a 2.5-years of study, receive their post-diploma certificate which is equivalent to 'high technician' title and can get a job in industry or any other sector of the economy. The specialization starts at the beginning of the course and the curriculum is mainly engineering practice-oriented.

The teaching staff usually have industrial training and workshop instructors have long industrial experience. The colleges also organize in-plant group training courses for industry staff and establish fruitful links with industry.

The graduates of the technical-vocational links teacher training centres, upon completing their studies, can be employed by the Ministry of Education as teachers in technical and vocational high schools.

2.8 Exceptional Education

The main aim of the education of exceptional children is to provide suitable opportunities and special possibilities for exceptional students in order to use their maximum mental and physical abilities. These students are divided into six groups according to their exceptional character. These groups are: the genius, blind and partly blind, deaf and partly deaf, mentally retarded, teachable, unsociable and physically handicapped. There are some priorities and projects such as development and generalization of exceptional education facilities all over the country with special attention to deprived regions, and offering special credit courses in the training centres to make teachers familiar with these children's problems and difficulties. Furthermore, two teacher training centres exist in Tehran, where teachers are trained to teach in exceptional schools.

The main aims of exceptional education are as follows:

1. The objectives of training the blind and deaf students is to develop their mental and physical abilities in order to help them become self-sufficient and to be able to serve the society.
2. The purpose of training the problematic children is to help them to solve their behavior problems which make it impossible for them to participate in general instruction.
3. The purpose of instructing mentally retarded students who are willing to be taught is to provide opportunities to them to use their physical and mental abilities for an independent life.
4. The purpose of the education of exceptionally creative and intelligent students is to stimulate and bring forth their potential talents so that they may serve in industrial and cultural fields and help lead the country towards self sufficiency and real independence.

2.9 Teachers Training

The teaching staff for the primary education and guidance cycle as well as teachers for exceptional children in the primary and guidance cycle are trained in the

teacher training centres which are affiliated to the Ministry of Education. The students who have received their high school diploma and are admitted to these centres, graduate after a two-year study in this course and then begin their work. At the present time, these centres accept the students in the following 14 fields: (1) primary education, (2) Persian literature, (3) English language, (4) German language, (5) French language, (6) Experimental sciences, (7) Social sciences, (8) Mathematics, (9) Vocational and technical training, (10) Islamic ethics and Arabic language, (11) Art, (12) Fostering affairs, (13) Physical education, and (14) Exceptional children.

The curriculum of these centres is based on the content of the textbooks of the guidance cycle, which they will teach later. Courses are offered for the purpose of upgrading the teaching skills of teachers. On the whole, four types of courses are offered in these centres:

1. Courses relevant to teaching skills.
2. The ideological and Islamic courses that reinforce the moral and ethical aspects of students.
3. General courses which give the necessary information such as hygiene, nutrition, Persian literature, etc.
4. Special courses which prepare student-teachers for teaching the guidance cycle textbooks and subject matters.

In order to train teachers for the rural areas, the Higher Council of Education has approved a degree according to which new four-year centres will be established. The students of these new centres will be selected from the guidance cycle graduates. After completing the four-year course of studies, the graduates will be employed by the Ministry of Education and will be sent to the rural areas.

The required teaching staff for secondary education, at the theoretical, technical and vocational branches, is trained by the universities and higher institutes. These personnel should have at least a B. A. degree.

2.10 Grading and Examination

In the present system of education in Iran, certificates are conferred on pupils upon the fulfillment of (1) the requirements of the five-year primary, (2) the three-year guidance cycle and (3) the four-year high school. Currently, a centralized and uniform final examination is administered for graduation from the province level for the fifth graders of primary and third level of the guidance cycle and on the national level for the twelfth grade of high school.

The Iranian system of education requires students to take three school examinations during each academic year and to pass them satisfactorily in order to be promoted to the next grade. The criteria for promotion is determined by a numerical scale. In an essence, it rests on student's efforts not to get less than a 10 point average out of 20 for the three annual examinations in each subject. However, if a student fails to meet this criteria, he will have the opportunity to re-take the

examination in the failed subject close to the beginning of the next academic year (September).

There is also some flexibility in the final examination on behalf of the students. That is, if any student gets less than 10, which is the lowest passing average, in one or two subjects, he can be promoted to the next grade, provided he compensates his deficiencies in those subjects during the next academic year. The student whose cumulative grade point average is less than 10, fails to be promoted to the next grade. He has to repeat the entire programme for another academic year.

In the educational system of Iran, a report card is maintained for each student during the primary, guidance cycle and secondary level and is completed at the end of each academic year.

This report card contains information about the educational and disciplinary activities of students during the nine-month academic year. Students who cannot attend formal education, can take the free volunteer examination which is held at the end of each academic year. It should be mentioned that the academic year in Iran begins on the 20 September of each year and ends on the 20 June of the subsequent year.

Part III

FUNDAMENTAL CHANGE IN THE NEW SYSTEM OF SECONDARY SCHOOL EDUCATION INCLUDING TECHNICAL AND VOCATIONAL EDUCATION

Following the comprehensive changes which resulted from the Islamic Revolution in Iran, it was necessary to re-examine the philosophy, policies, strategies, and objectives of the previous educational system. The Council for Fundamental Change in Education, established in 1986 as an organization affiliated to the Higher Council of Cultural Revolution, became responsible to revise the Pre-College Educational System, study some ideal alternatives, and propose a system of education to the pre-College level, based on the Islamic doctrine, as well as the new social, economic, and political needs. (Ministry of Education, 1993, pages 35-39)

The Council, consisting of educators, university professors, and a number of deputy ministers, headed by the Minister of Education, prepared the following main guidelines which were finally approved by the Higher Council of Cultural Revolution in 1990.

1. Providing the necessary conditions and facilities, to promote and develop the quality and quantity of the secondary (theoretical as well as technical and vocational) education based on the social, economic, and cultural needs of the various regions of the country and also on the basis of the sex and age characteristics of the students. The following items are some of the most essential considerations which were suggested to be implemented:

   a) Providing enough flexibility in the secondary education to lead students to get better jobs, to enter higher education, and to choose those academic branches of study which properly match the social needs and the students own interests, regarding the latest scientific and technological innovations;

   b) Increasing the quantity and promoting the quality and status of the technical and vocational education;

   c) Providing appropriate bases and conditions to take advantage of the social capabilities for promoting the secondary education, organizing outdoor education, and also putting the different local public facilities in the service of these types of education;

2. The secondary education will last three years, and passing of 96 course units is necessary for graduation from the secondary schools. These course units are divided into two different categories:

   a) **General (common) courses.** These courses are considered necessary for promoting the scientific, social, economic, cultural and political insights of the secondary school students. These courses cover about half of the total units, and they should be passed in the first and second year of high school.

   b) **Special courses.** Passing these courses will offer the students with the basic theoretical and practical skills and prepare them to initiate a given profession or to enter any academic branch of the higher education institutes.

3. The branch of technical skill education will be established according to the social capabilities to encourage students to learn those skills necessary for the society, and also the economic, cultural and educational opportunities of the country will be devoted for the development of the appropriate centres. Based on their interests, the guidance school graduates can enter this branch, and by passing 32 or 48 units, they will receive a second rate and a first rate skill certificate respectively. Upon passing additional 48 general course units, these students can receive a technical skill diploma.

4. For preparing high school graduates to enter higher education, the Ministry of Education will establish a pre-college course. This course will take one academic year, and high school graduates will be allowed to enter this course under the conditions defined by the Higher Council of Education.

5. The curriculum of the pre-college program will be developed based on the secondary school curriculum as well as the higher education situations. The curriculum will be prepared and approved, in a cooperative manner, by the Ministry of Culture and Higher Education and the Ministry of Health Care, Treatment and Medical Education. The Ministry of Education is responsible for administering the pre-college course programmes.

6. Upon completion of the pre-college course, the graduates are eligible to take part in the higher education entrance examination.

7. The secondary school graduates who are interested to enter a two-year associate course, do not have to pass the pre-college courses, provided they meet the other pre-requisite requirements.

8. Designing and administering special courses in the fields of science and technology, the Ministry of Culture and Higher Education in accordance with some other organizations will provide the necessary preconditions

for the graduates of technical and vocational schools, as well as those of technical and also teacher training associate courses to pursue further academic studies.

9. The Ministry of Education will administer or supervise the performance of part-time as well as complementary courses for students to complete their general or special courses. The Ministry will also prepare the relevant guidelines for evaluating the outdoor education programmes, as well as designing the procedures for supervising and developing this type of education.

10. The Ministry of Culture and Higher Education, with co-operation of the Ministry of Education, will prepare the relevant programmes for training manpower necessary for the new system of secondary school education.

11. The Ministry of Education will prepare the first draft of the guidelines for planning, managing, and implementing the plans and present it to the relevant organizations for the final approval.

As reflected in the Plan, compared with the present system of education, major changes are to occur in the policies, administration, programmes, and curricula of the different academic branches of study. In order to achieve the above objectives, a detailed study and planning along with the knowledge of necessary provisions are needed. Even though the present socio-economic status calls for a rapid and urgent change within the system (Figure-2), it is predicted that the implementation of the whole programme will take about 12 to 14 years.

Therefore, the Ministry of Education, based on the defined essentials in the approved plan of the new system of education, has prepared an intermediate first draft of plan called 'The Transitional Stage to the Ideal System of Secondary Education' in 1990 (Figure-3).

In this plan, the transitional stage is defined consisting of two or three phases of which the first one would take about 17 to 23 months to be ready to administer.

The first phase has already begun as a pilot plan, and it has been administered in about 15 per cent of the secondary schools in the academic year 1991-92. This percentage will increase each year, in order to cover the whole secondary school education throughout the country.

Figure 2. The Structure of the New System of Secondary Education Approved by the Higher Council of Cultural Revolution

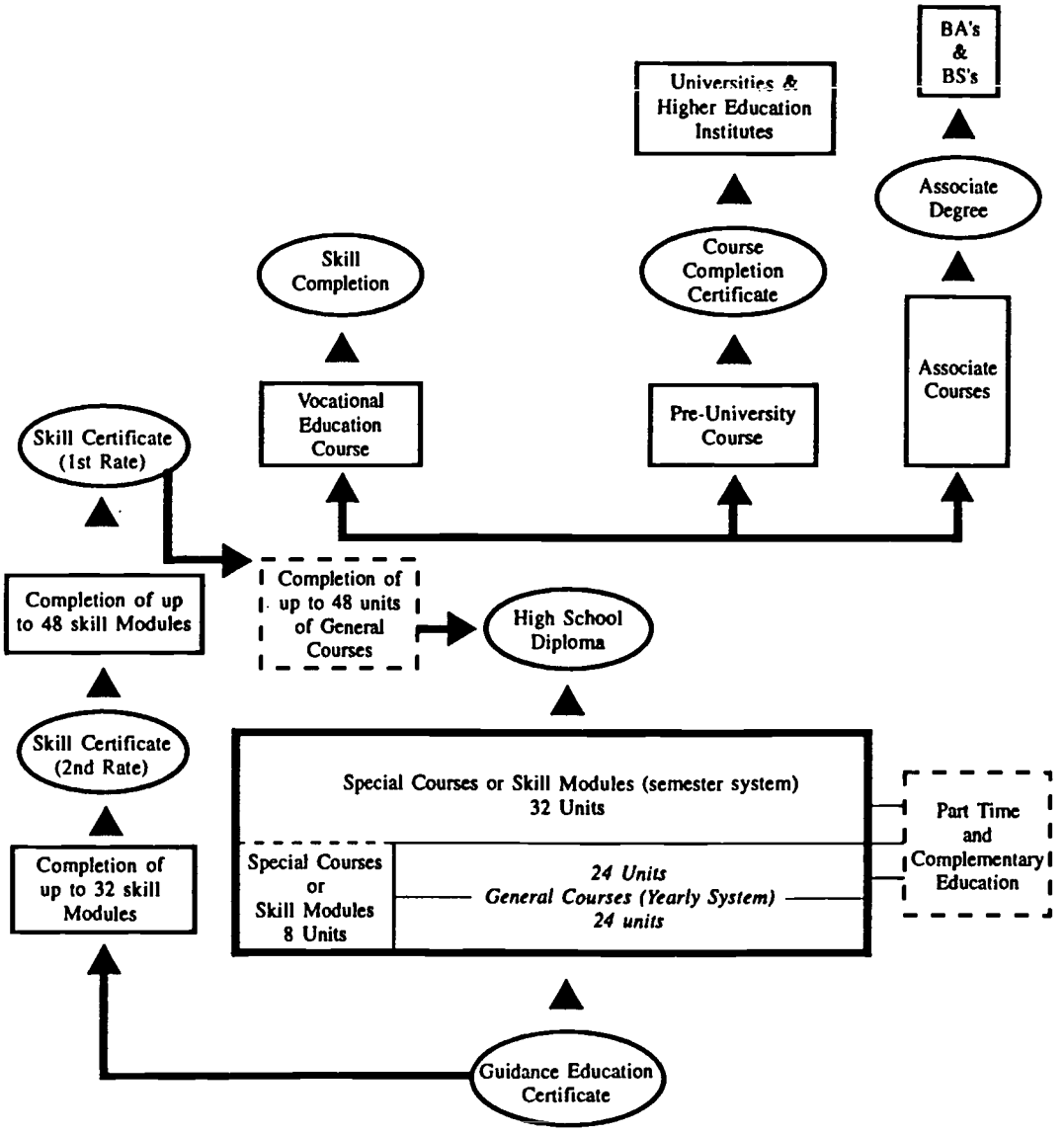
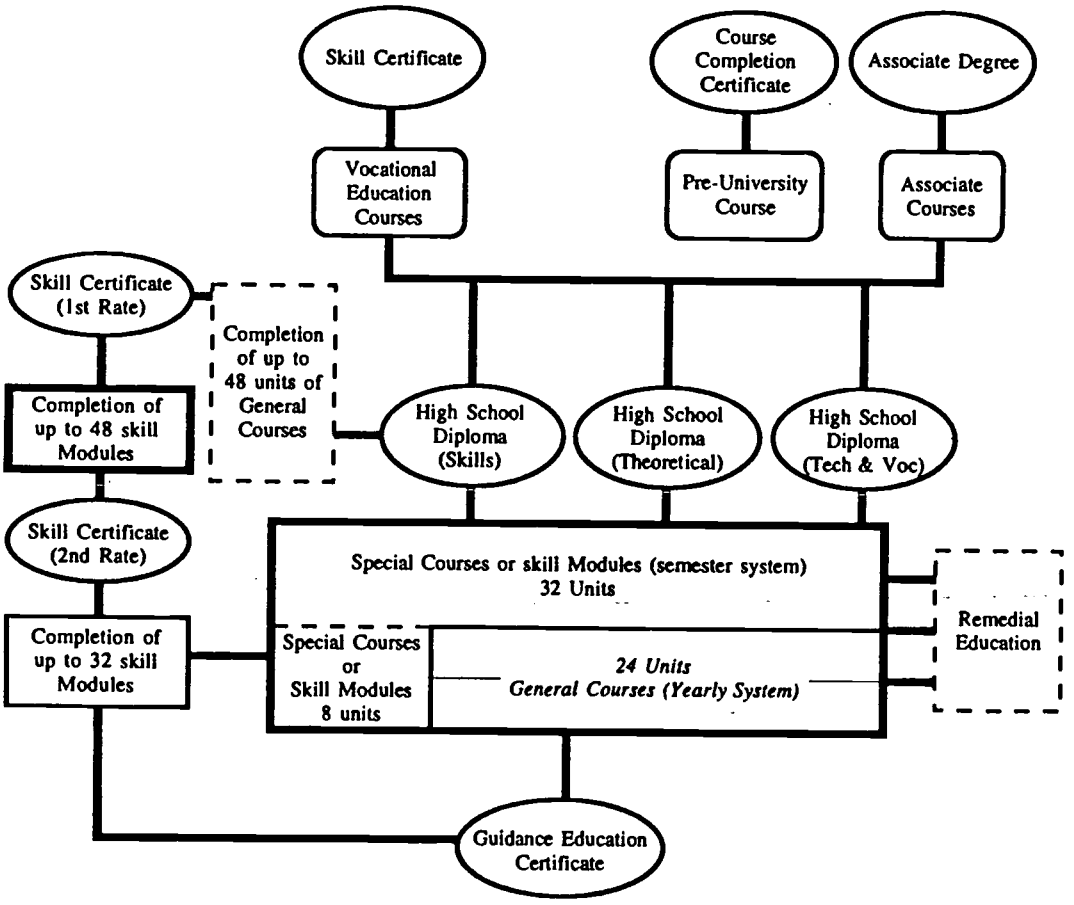


Figure 3. The Structure of the System of Secondary Education
(The Transitional Stage of the Ideal System)



Part IV

THE SITUATION IN AUGUST 1993

The author of this country profile personally visited Tehran and met the key personnel in the Ministry of Education and senior managers of one educational institute. It transpired from discussions with them that there are marked degree of differences in their perceptions of the philosophy and policy of directives of this New Education system, although everyone seemed committed to devise implementation strategies in accordance with the philosophy and goals of the New Education Policy.

The convergence of majority opinions and the state-of-the-art of the activities concerning the new Educational Policy can be shown in the following simple diagram. (Figure 4)

4.1 Explanation of the New System

Under the new system, the students passing guidance schools enter the 3-year secondary school according to their 'aptitudes and potentials'. They begin their first year 'temporarily'. They can continue the same course provided they can complete the first year successfully. The courses provided in secondary schools are:

a) *Theoretical Course*

The aim of this course is to promote general knowledge and culture of pupils, identifying their aptitudes and attitudes, provide essential background to guide them into one of the many areas of secondary level and prepare them to be able to enter the universities. Pupils have about 70 units in common while the remaining 26 units are divided specifically among Math-Physics course, Literature and Human Science Course, in the three years secondary course to get a diploma.

The students after passing the diploma can take part in a one-year pre-university course. The other students and also drop outs can enter 'Kar-Danesh' course to get skills (described below).

b) *Vocational and Technical Course*

The aim of the course (in addition to promote general knowledge and culture, to identify aptitude and attitude of pupils), is to guide them to continue their studies in applied-science course. About 60 units of 96 units are common in different areas and other 36 units vary among industry course, agriculture course and service course.

Qualified students of TV courses can also enter the institutions offering 'technician degrees' or pre-university course, and others get first or second degree skill certificates to begin jobs according to their fields of study.

c) ***Kar-Danesh (Work-knowledge) Course***

The aim of this course is to produce semi-skilled and skilled workers, foremen and supervisors.

Pupils can get their 'second degree skill certificates' (i.e. National Skill Standard II) after they have passed 32 units of skill modules or get their 'first-degree skill certificates' (i.e. National Skill Standard I) after passing 48 units of skill modules. They can also get their diploma in the same field provided they can pass 48 units of general subjects.

d) ***Pre-University Course***

The aim of this course is to prepare pupils to enter the universities if they can pass 32 units according to their fields of study.

e) ***Integrated Associate Degree in Technical/Vocational Stream***

This is a contemplated five-year course after guidance to produce what are generally called 'technicians' in the industrial world. Differences of opinions exist among the curriculum developers in the Ministry of Education concerning this course. The dotted lines in Figure-4 signify that the students of this stream have the option after three years to opt for pre-college or other streams. The curricular arrangement of such a course is difficult and students may have a dual-aim and neglect the practical subjects which have a continuity for five years. The Iranian literature has translated this course as 'Joined Associate Degree'.

f) ***Open Associate Degree in Technical/Vocational Stream***

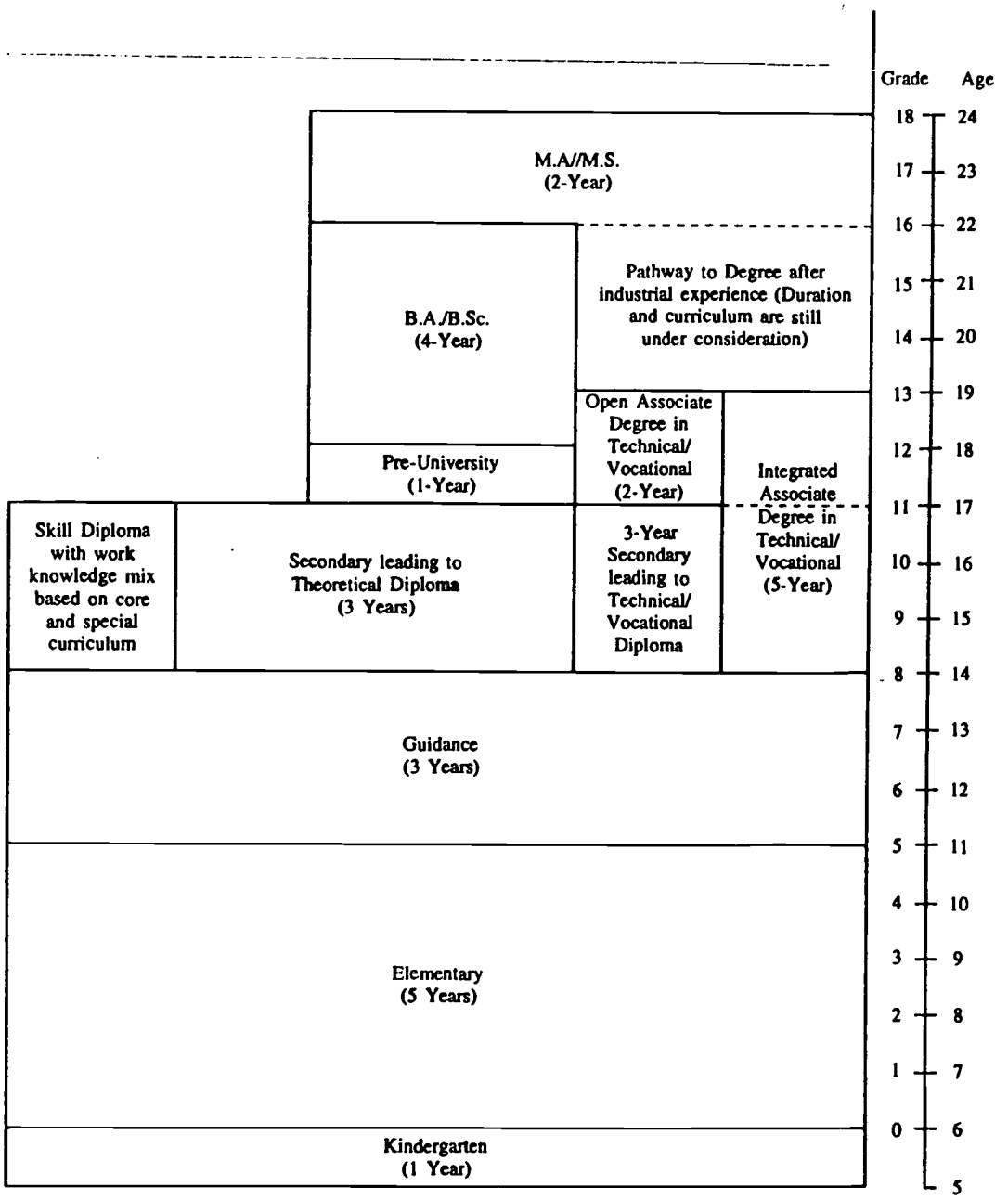
This is a two-year course after three years of secondary, having Diploma in Technical/Vocational stream. The Iranian literature has translated this course as 'Unjoined Associate Degree'.

g) ***Flexibility***

There is adequate flexibility for lateral movement from one stream to other streams. This makes the design of 'core' and specialized curriculum extremely difficult. Only the future can say how the new curricular arrangement will be made without disintegrating the systematic development of knowledge and skill leading to specified occupations.

Figure 4. The New Educational System of Iran

(As studied in the month of August 1993. New changes may emerge during the process of implementation)



Part V

HISTORICAL DEVELOPMENT OF TVE

Technical and vocational education was officially started by the establishment of a technical school in 1907 in Tehran. This school was divided into two branches: Wood work and metal work. Due to the first world war the activities of this school had to end in 1925. Eventually in 1928 the number of technical schools increased to nine which were in cities like Tehran, Shiraz, Tabriz and Mashhad. Then in 1928, a women vocational school, in 1933, a girls technical school, in 1938, an agricultural school and in 1937, vocational and business schools were founded. These schools became part of official system of technical and vocational education in Iran. Education system consisted of elementary school (6 years) and secondary school (6 years). Technical and vocational education, mentioned above was in secondary schooling. (Ministry of Education, 1987)

Technical and vocational education at the university level started in Iran in 1935 by the establishment of two schools of technical and agricultural education in Tehran university. These two faculties started to work using modern ways and methods.

The informal training (the kind of training which is not part of formal education) began to function in 1935 by the establishment of a vocational centre in oil company. Its aim was to train skilled workers and the duration of this course was five years.

The second world war caused a break in the activities of technical and vocational education. The activities were reopened in 1959. In this year the technical and vocational students were 28% of the total number of secondary students.

In 1959, some elementary vocational centres with three year courses within formal system of technical and vocational (the first three years of secondary-school) were set up.

Training of the special teachers for technical and vocational education was started by 1951 for men, and 1961 for women. Also in 1964, a kind of training centre (College) for training higher technical education was designed (this course was designed for people who had finished secondary school successfully).

Until 1966, all activities of secondary type of technical and vocational education were under the responsibility of the Ministry of Education. But in this year, responsibility of secondary agricultural education was shifted to the Ministry of Agriculture. Also in 1967, after establishment of the Ministry of Science and Higher

Education, all activities of higher education including technical and vocational at university level, except technical and vocational teacher training and training of high technicians, was vested in the new Ministry.

It should be mentioned here that educational system of Iran was changed during academic years of 1966-67. Elementary and secondary levels were divided into three parts: Elementary school (5 years), Guidance cycle school (3 years) and high school (4 years).

Secondary technical and vocational education with three branches (industrial training, professional training and training for rural vocational education) having duration of four years was introduced from 1974-75. Also vocational centres with the aim of offering courses having duration of one or two years specially designed for rural people or less bright students were opened from the academic year of 1971-72.

The academic year of 1979-80 should be considered the year of great changes in technical and vocational education system. Some institutes were closed, some merged and some separated. The high council coordination of technical and vocational education was formed.

In 1983-84 academic year, the percentage of students in technical and vocational education reached 13% of total of all the secondary school students. Since the academic year of 1983-84 (the first year of 5 and 20 years planning for economical social and cultural development in Islamic Republic of Iran) special attention was paid.

After three years (1986-87) the number of students in secondary technical school grew to 214,424 students, which were 18% of the total number of students in secondary schools.

It should be mentioned that from the academic year of 1982-83, some new activities which were a combination of work and knowledge, called KAD, in secondary school had been started, and this change was considered an improvement in secondary schooling system. (But in 1993, the KAD me is considered unsatisfactory and unmanageable) According to this me, all the students at secondary level have to attend 8 hours per week either in private or public or cooperative workshops under the supervision of two instructors, one of them from the Ministry of Education and the other one a specialist from workshops in industry. This me is a kind of practical training.

5.1 Higher Council of Education

After the Islamic Revolution in Iran, the Higher Council of Education was established as the highest legal body for education in Iran. The Council consists of 17 members including four ministers, one religious representative, three experts from different scientific disciplines, three experienced teachers, one expert from industrial sector, one expert from agricultural sector, the General Director of Research and Planning Bureau, and three scholars in the field of education.

The Secretariat of Higher Council of Education is responsible for officially notifying the council's decisions and approvals to all organizations including the Department of Technical and Vocational Education. The approval of Higher Council of Education is compulsory for all policy decisions.

5.2 Department of Technical and Vocational headed by Vice Minister

This Department is responsible for planning and management of entire TVE activities in the country. It has many divisions/councils under its control (Figure 5) The major five bureaus under the Department relate to technical education, vocational education, agricultural education, higher education and KAD plan. The Department has also research division, book evaluating council, computer, statistics and information centre, board of educational planning, budgetary office, technical information and production of educational materials centre, and various committees.

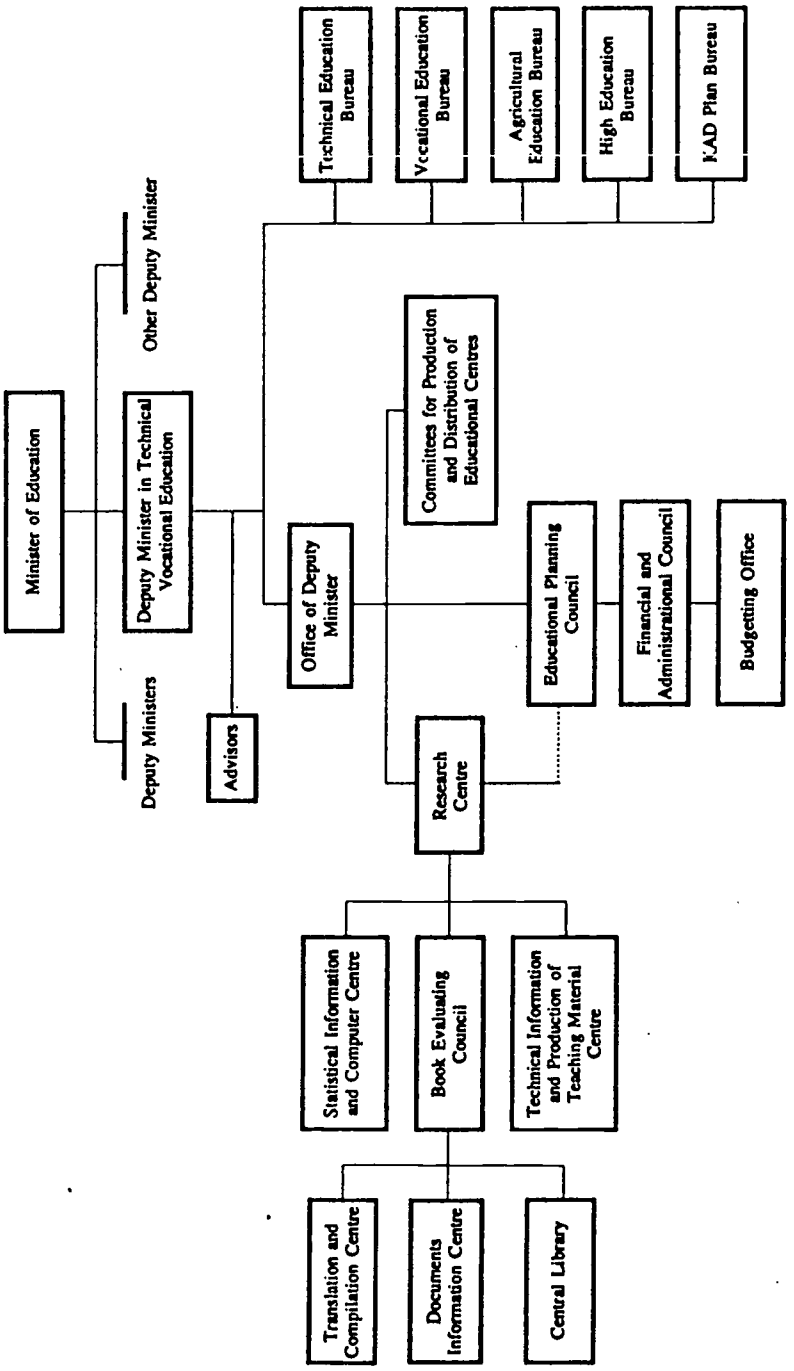
Education is free from elementary to high school including technical and vocational education. Therefore, main provider of expenses is the government. In addition, the students are given loans which are recovered in their service career.

5.3 Enrolment in 1992-93 in Different TVE Institutions

Table 1

Serial No.	Area of Education	No. of Students	No. of Branches
1	Technical Schools	150,478	22
2	Vocational Schools	116,411	7
3	Agricultural Schools	12,792	4
4	Technical Colleges	22,655	28

Figure 5. Various Functional Units of TVE System



Part VI

NON-FORMAL TRAINING BY THE MINISTRY OF LABOUR AND SOCIAL AFFAIRS

In addition to formal technical and vocational programmes run by the Ministry of Education and the Ministry of Sciences and Higher Education, non-formal vocational courses are conducted by Technical and Vocational Training Organization (TVTO) of the Ministry of Labour and Social Affairs. This informal system lays emphasis on practical training and upgrading of skills. Theory is considered necessary for teaching practical courses and facilitating learning and the trainees are awarded a certificate of vocational skills. Duration of these courses are normally less than two years.

The non-formal training imparted can be divided into three categories. First, there are basic and widely applicable skills such as welding, sheet metal, turning, etc. which are normally common in different trades. The second category includes the skills that are similar only in a few factories or industries like auto manufacturing, cement and food industries, etc. The third group involves some highly specialized skills that are only applicable in one factory or industrial unit like the ones needed by Sarcheshmeh Copper Complex, Oil industry's precision tools and control units, Ministry of Energy, etc.

Basic skills training is within the responsibility of the Ministry of Labour and Social Affairs and is provided by different training centres of Technical and Vocational Training organization as well as private institutions. These basic courses, in some cases, need certain complementary programmes (training or apprenticeship) at industrial units that are normally sponsored by related factory.

Training on the skills commonly used by a number of factories are either provided by centres affiliated to such factories or through on-the-job training schemes supervised by TVTO. Highly specific skills courses are held at the user industrial unit in compliance with the educational criteria.

All candidates who have physical ability in proportion to their required work and satisfy the other conditions are allowed to undergo training.

The minimum age required for undergoing training is 14 years. The minimum educational qualification needed is completion of primary school. However, some of the courses require higher qualifications.

In addition to the trainees trained at the training centres of TVTO, any person who has learned a craft, in some way, and is desirous to receive a certificate of

skill, may refer to and enrol at TVTO. The applicants may receive the same 'certificate of skill' by passing the required theoretical and practical tests.

Table 3 shows the number of training centres and number of courses in the centres in the different provinces.

Table 4 shows the different courses, hours of training and minimum qualification required to undergo the training.

Table 3. Training Centres

	Province	Centres	No. of Courses
1	East Azarbaijan	3	19
2	West Azarbaijan	2	9
3	Isfahan	4	24
4	Elam	1	15
5	Bakhtaran	2	17
6	Boushehr	3	10
7	Tehran	11	33
8	Chahar - Mahal/Bakhtiari	2	8
9	Khorassan	9	26
10	Khouzestan	5	18
11	Zanjan	2	19
12	Semnan	4	18
13	Sistan/Balouchestan	2	16
14	Fars	3	16
15	Karaj	2	28
16	Kurdistan	3	15
17	Kerman	4	28
18	Kohkiloyeh/Boir - Ahmad	2	7
19	Guilan	5	17
20	Lorestan	2	15
21	Mazandaran	8	17
22	Markazi	1	11
23	Hormozgan	2	5
24	Hamedan	4	12
25	Yazd	2	14

Table 4. Different Courses with Duration and Minimum Qualifications

No.	Training Course	Training Hour	Minimum Qualification
1	Electrotechnics	900	Junior High School (Guidance)
2	Building Wiring System	900	Junior High School
3	Engine and Transformer Wiring	900	Junior High School
4	Cooling Home Appliances Repair		Junior High School
5	Circulating Home Appliances Repair	600	Junior High School
6	Electrical Home Appliances Repair		Junior High School
7	Radio and TV Repair	900	Senior High School (Secondary)
8	Color TV Repair	300	Senior High School
9	Computer	110	Senior High School
10	Turnery	900	Junior High School
11	Milling	900	Junior High School
12	Moulding	1837	Junior High School
13	Indústries Mechanics	1800	Senior High School
14	Petrol Engines Repair	900	Primary School
15	Diesel Fuel System	600	Junior High School
16	Car Wiring and Elect. System	900	Primary School
17	Car Upholstery	260	Primary School
18	Car Body Repair	600	Primary School
19	Car Painting	600	Primary School
20	Tiller and Tractor Mechanic/Repair	900	Primary School
21	Heavy and Road Making Machinery	900	Primary School
22	Sheeting	600	Primary School
23	Door and Window Making by Fashioned Iron	900	Junior High School
24	Electrical Welding	900	Junior High School
25	Gas Welding	900	Junior High School
26	Gas - Plumbing System	600	Junior High School
27	Cold and Hot Water Plumbing	600	Primary School
28	Utility System	900	Primary School
29	Carpentry	900	Junior High School
30	Modeling	1200	Junior High School
31	Casting	900	Primary School
32	Eng Drawing	900	Senior High School
33	Eng Drawing for Building	900	Senior High School

Table 4. Different Courses with Duration and Minimum Qualifications (cont'd)

No.	Training Course	Training Hour	Minimum Qualification
34	Surveying	900	Senior High School
35	Construction Frame Work	700	Primary School
36	Sliding Wooden Mould Assembling	633	Primary School
37	Wood framework	900	Primary School
38	Armature	514	Primary School
39	Reinforcement Concrete	900	Primary School
40	Building Painting	600	Primary School
41	Introduction to Weaving	240	Junior High School
42	Weaving	240	Junior High School
43	Fibre and Yarn Dyeing	240	Junior High School
44	Spinning	240	Junior High School
45	Fibres Physics Lab	240	Junior High School
46	Leather and Skin Manufacturing	600	Primary School
47	Manual Printing on all contexts	358	Junior High School
48	First Class Driving	month	Junior High School
49	Accounting	600	Junior High School
50	Typewriting	600	Junior High School
51	Sewing	600	Primary School
52	Wool Weaving	600	Primary School
53	Embroidery	600	Primary School
54	Crocheting	600	Primary School
55	Carpet Weaving	600	Primary School

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