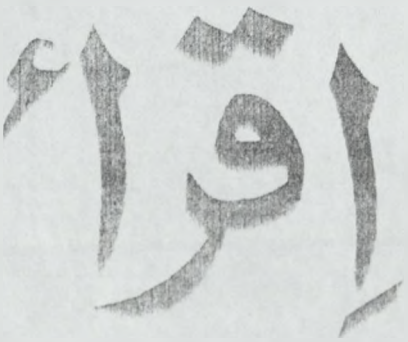
NATIONAL EDUCATION POLICY

1998–2010



GOVERNMENT OF PAKISTAN
MINISTRY OF EDUCATION
ISLAMABAD

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FOREWORD

The new Education Policy (1998-2010) has been framed in the perspective of historical developments, modern trends in education and training and emerging requirements of society in terms of national integrity and economic and social development. The state of Pakistan, soon after independence, demonstrated its commitment to education by convening National Conference on Education in November, 1947. The Conference took stock of the situation and expressed aspirations of the nation and those of the then Muslim League Government. Quaid-i-Azam Mohammad Ali Jinnah provided vision for future. Keeping in view the goals for the nation, the 1959 Education Policy, popularly known as Sharif Commission report was a step forward in that direction. This policy reiterated the objectives of 1947 Educational Conference and provided a rational framework for translating the abstract concepts into practical realities. The policy did not provide any physical targets, leaving them to the discretion of the agents of implementation. Since good results were not achieved, as many as six other Education Policies were formulated from time to time. The last one came in 1992 during the first tenure (1990-93) of the Prime Minister Mohammad Nawaz Sharif. Within one year of the declaration of the policy, the Muslim League Government was ousted. The ideas put forth in the policy, therefore, could not be implemented. After coming into power again in 1997, the Muslim League government took a fresh look on the educational problems of the society. In view of rapid developments, taking place all over the world and the enormous changes in the socio-economic fabric of our own society, it was deemed essential to express the aspirations and intentions of the government in the crucial area of education with a renewed vigour and outlook.

The Prime Minister Mohammad Nawaz Sharif directed the Ministry of Education for formulation of a new Education Policy. An honest endeavour has been made to reflect aspirations of the Prime Minister as well as people of Pakistan in compilation of this document and to make it practicable and implementable. It is a dynamic document which is open to improvement with the passage of time.

Education is now universally recognized to be the prime key to moral, cultural, political and socio-economic development of a nation. The nations, who have taken major

initiatives, made revolutionary advances and performed miracles in the last two decades, have only faithfully exploited the efficacy of this dictum. Being conscious of this reality, one of my main tasks has been to mobilize the political will and seek support from all sections of the population. The Prime Minister of Pakistan has given me full support in this national task and this fundamental idea forms the genesis of the present Policy. It takes a balanced and pragmatic view of the entire education system. Learning from our past experiences, lop-sided thrusts and unattainable targets have been avoided. The basic objectives of universal basic education, diversified secondary education and high quality tertiary education have been emphasized, without affecting the holistic and balanced approach, which forms the basis of this policy. The major concern of creating enlightened Muslim society permeates through all these areas. The theoretical and practical components of the policy have been conceived in light of the modern trends and essential requirements of the society. In addition to *Nazira Qur'an* and its translation, it has been prescribed as a compulsory component all through the elementary level and a whole package of reforms has been proposed for Islamic Education. The objective is to narrow the gap between purely religious and purely secular education, leading finally to purposeful integration of the two systems. Diversification of secondary education is proposed to be achieved by introducing a separate stream of Matric (Technical), which will form an integral part of the system. The standards of higher education will be brought at par with the international level by introducing an optional stream of B.A./B.Sc Hons. The continuous supply of scientifically trained manpower will be ensured by gradually balancing the ratio between Arts and Science streams and making it finally 50:50. An institutionalized monitoring and evaluation mechanism has been proposed at the level of Prime Minister to ensure that the targets of the policy may be achieved in time.

Efficient decentralized management and institutionalization of community mobilization are the two mainstay of the policy. A new concept of District Education Authority has been proposed. This authority will have proper linkage with educational set up on the one hand and liaison with the community for mobilizing its resources for meaningful utilization on the other. The two inter-related functions of implementation and monitoring shall thus be entrusted to the community at the level of basic administrative unit.

We have decided to announce the policy on 27th March, the 100th death anniversary of Sir Syed Ahmed Khan. We cannot find a better occasion to dedicate ourselves to the goals and ideals set by him. He was a great believer in the Muslim Community. He being a visionary and thinker was a practical man. More than ever before there is a need to act on the message for the Muslims that Sir Syed Ahmed Khan left through his thoughts and deeds. This message was of unity and of tolerance. He talked of the Muslims as one people. There was no distinction between Provinces and there was no differentiation on the basis of language. Sects and other distinctions were far from all his thoughts and deeds. He thought of us as Muslims and Muslims alone. We need to learn from his teachings. God has given us a beautiful country, an independent home-land where we can develop as a nation without fear and suppression. We must unite and look upon ourselves as Muslims and Pakistanis. We must remove from our hearts the artificial distinctions that have raised their heads. Today, we must resolve to be Muslims and Pakistanis and nothing else. This will be a befitting dedication to the 100th anniversary of the death of Sir Syed Ahmed Khan and it will help us to achieve our targets.

In the end, I am thankful to all the scholars, men of ideas and general public that provided many useful ideas for enriching the contents of this policy. I am also grateful to Education Secretary and the Officers of Ministry of Education, who worked very hard for putting this document together. I feel indebted to my Cabinet colleagues, especially the members of Cabinet Committee whose continuous guidance and support have been of immense help to us. I pray Allah Almighty to give us strength, fortitude and courage to implement this policy faithfully so that we can cover lost mileage among the comity of nations. Amin.

March 27, 1998

(Justice (Retd) Sayed Ghous Ali Shah)
Minister for Education

PREFACE

Pakistan celebrated Golden Jubilee of independence last year. The dawn of 21st Century is only two year off the road. Nations of the world have been preparing for entering the new millennium with clearly defined directions and commitments for the last two decades. The twin issues of maintaining supply of highly trained manpower for keeping the sophisticated industrial establishments operational and sustaining an accelerated pace of research for further advancement has placed education at the apex of all plans and philosophies for survival. The concept of continuing education for common citizen has assumed significance as the unprecedented technological advancement is rendering them into illiterates.

While this is happening at the top-layer of educational development, we in Pakistan are still struggling with the problem of illiteracy, which for us consists of basic skills of reading and writing. We, therefore, require a strong commitment for defining a clear direction and then advancing towards it with determination. This task can only be accomplished through political will expressed at the highest level and carried out by massive support from the general public.

The state of literacy within the context of cultural and historical heritage of an Islamic society, presents a paradoxical picture. Islam emphatically requires the quest for knowledge for all individuals and makes provision of education as an obligation for the state. During the dark ages of Europe, Muslim societies all over the world carried the torch of knowledge and advanced its frontiers. According to the reports on literacy published during the last decade of 19th century, literacy rate among the Muslims of the sub-continent was 65%. The 1951 census, indicate that the literacy rate had declined to 13% at the time of independence of Pakistan. The present rate of literacy is estimated to be 38.9% which means that literacy has been increasing at the rate of half percent during the last fifty years. Consequently, Pakistan stands at 142nd position among 160 countries, whereas among SAARC countries, the position is 6th. It is certainly a depressing scenario.

The Prime Minister asked the Ministry of Education (MOE) to design a New Education Policy that will smoothly lead the nation into the next century. The MOE embarked on a comprehensive process of consultations with scholars, administrators,

leader of public opinion and representatives of non-governmental organizations to develop an initial draft. These deliberations helped the MOE to devise major features of the policy which were considered by the Cabinet on 21.1.1998. The Cabinet examined the draft in detail and suggested to extend the range of consultations for developing a truly democratic and representative policy. Accordingly, the Ministry of Education flashed advertisements in the national dailies, inviting ideas and concrete proposals. Also, the Cabinet appointed a sub-Committee, headed by the Education Minister and consisting of Ministers for Finance, Planning and Economic Affairs, Interior, Religious affairs, Information, Deputy Chairman, Planning Commission, and Minister for State: Women Development Social Welfare and Special Education, and the Chief Coordinator of Vision 2010, to scrutinize the proposals and advise the Ministry for finalizing the policy.

Six committees of experts of Ministry of Education were constituted to examine 4,025 proposals received from all over the country and to identify those not already included in the draft policy. The Cabinet Committee reviewed these proposals in consultation with eminent educationists and approved those which could be incorporated in the policy. Later, further major proposals were submitted to the Cabinet on 21st January 1998 for decision. In line with the Cabinet decision, the first revised draft was submitted to the Cabinet on 18th February, 1998. Finally, the Prime Minister of Pakistan in a National Convention on Education, on 21st February, announced the salient features of the policy and led the general discussion. The Prime Minister provided yet another opportunity to the public to provide a comprehensive feed-back to the Ministry by March, 15 1998.

In response to the call of the Prime Minister, 774 proposals were received by the Ministry of Education after 21st February which were presented to the Committee of the Cabinet on March 18, 1998. On the same day the views of all donor agencies and governments were personally heard by the Education Minister, assisted by the senior officers of the Ministry. The Cabinet Committee spelt out the broad outlines for judging eligibility of the proposals to be the part of Education Policy, and appointed a Sub-Committee under the Chairmanship of Education Minister to scrutinize them.

Simultaneously, the draft of the policy was discussed at length in the standing committees of National Assembly and Senate. These Committees invited experts from all over the country and asked for their candid feed-back to improve the policy. MOE received

all comments from the Standing Committees, which were examined personally by me and the Education Minister. The final document that emerged, contains all the proposals that met the criteria laid down by Cabinet sub-Committee.

We have an enviable history of producing excellent documents of plans and policies which could not be implemented. The present policy is being launched with the highest level of political commitment. The Prime Minister personally assured the nation that he will do every thing possible to implement the provisions and achieve the targets of the policy. The concerns of major donor agencies and governments have also been taken care of in this policy. Accordingly, the targets, as envisaged in the Social Action Programme (SAP-II) and those emanating from national and international commitments of the government of Pakistan have been incorporated. In addition, public participation has been ensured through wide range of consultations and by eliciting public opinion. The highest political commitment, the unreserved cooperation of foreign donors and people's ownership are a guarantee for proper implementation and success of this policy.

Development of this policy is very unique, because the Prime Minister for the first time in the history of the country broadcast this live on television to the nation. He personally provided audience for more than two hours to all those present on the occasion to obtain their comments and proposals. He declared education as the top priority and pledged before the nation to raise educational expenditure from 2.2% to 4% of GNP. For the first time in our history, a debate on the education policy was arranged at the national level. Therefore, the democratic process led by the Prime Minister personally at all different stages provides sufficient strength to the positive expectations for proper implementation.

The launching of policy will be followed by a well conceived Plan of Action, which will be developed in consultation with the provinces and the educationists. The Plan of Action will work out several scenarios, based on different assumptions of the policy provisions. Physical targets will be laid down on quarterly basis and agencies responsible for its implementation will be identified. This will provide the basis for preparing quarterly agenda for monitoring and evaluation Committees to be headed by the Prime Minister and the Chief Ministers of Provinces to make strategic decisions, on corrective measures.

In nutshell, we have taken all possible safeguards to ensure that the present policy is implemented in letter and spirit. The Prime Minister has made a clear commitment. The Government machinery at the provincial and federal level has been positioned in state of readiness to take over the task of implementation, immediately after the announcement of the policy. Massive public support is expected to be mobilized for providing resources and monitoring implementation process.

May Allah guide us to deliver as best as we can for future prosperity and integrity of this nation.

March 27, 1998

(Dr. Safdar Mahmood)
Education Secretary

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CHAPTER

INTRODUCTION

1. INTRODUCTION

Are those equal, those who know and those who do not know?
Al-Qur'an 39:9)

1.1 The ideology of Pakistan lays down two important obligations for the government. Firstly education will be accessible to all citizens. Secondly it shall enable them to prepare an enlightened and civilized individuals committed to the cause of Islam. These Obligations, are in accordance with the teachings of the Qur'an, Which recognizes provision of education as a right of the individual.

1.2 The present Government has accorded full recognition to this fundamental responsibility. The manifesto of the Pakistan Muslim League has assigned a distinct place to education and committed itself to several significant goals as guiding principles of its policy. Briefly these goals include, inter alia; (i) attaining respectable level of literacy by universalizing basic education; (ii) making arrangement for providing quality education and reducing the gender disparities at all levels; (iii) encouraging private investment, (iv) making education purposeful and job oriented (v) upgrading the quality of higher education by encouraging internationally recognized research in universities; (vi) reforming the examination system, and (vii) evolving an efficient decentralized management structure.

1.3 The first major thrust of the policy is on the eradication of illiteracy. The policy stipulates to use all possible formal and informal means for expansion of basic education. The concepts, procedures and targets as envisaged in Social Action Program (SAP-II) shall be adhered to. The role of the Prime Minister's Literacy Commission has been enhanced for taking educational opportunity to the doorsteps of deprived and under privileged segments of society. Full utilization of existing capacity at the basic level has been ensured by providing for introduction of double shift in existing schools of basic education. It is envisaged that expansion of basic education at unprecedented rate shall enable the Government to promulgate and implement Compulsory Primary Education Act. The utilization norms for the existing schools shall be laid down and redeployment of school will be undertaken accordingly. It is expected that by the year 2002-03, 90% of the children in the primary age group (5-9) will be in schools and by the year 2010, the gross enrolment will rise to 105%. Consequently, the promulgation and enforcement of Compulsory Primary Education Act will be possible by 2004-05.

1.4 Diversification of education is the corner stone of this policy at the secondary level. Three distinct streams will now be available at the secondary level. The graduate of basic education who want to join a profession will be able to vocational schools. A separate stream of Matric (Technical) will be added into general education for those who plan to pursue higher education. The opportunities of joining technical education for graduates of secondary schools will be increased by providing better equipped and easily accessible polytechnics all over the country. To cope with the increasing

demands, a special program for training of technical and vocational teachers shall be undertaken by the National Technical Teacher's Training College in Islamabad.

1.5 Higher Education is responsible to supply highly trained manpower for the country. The policy, therefore, envisages to increase the participation rate from 3% to 7%. It is a fact that Pakistan cannot afford to train a large army of university graduates aimlessly, the policy, therefore, proposes to tap the intellectual resources available in institutions of higher learning for economic and technological development. Hence, practical linkages shall be established between universities and the industries.

1.6 The technological and scientific knowledge is expanding at an unprecedented rate. The 21st century is referred to as the century of information technology. The policy takes care of this need by introducing computer education as a subject at secondary levels. Proper laboratories and trained teachers will be provided for this purpose.

1.7 Ideology of Islam forms the genesis of the state of Pakistan. The country cannot survive and advance without placing the entire system of education on a sound Islamic foundations. The policy has adequate provisions for this transformation, such as integration of society; upgrading the quality of education in Deeni Madaris. Nazira Qur'an has been introduced as a compulsory component from grade I-VIII while at the secondary level translation of the selected verses from the Holy Qur'an will be offered.

1.8 Teacher is a backbone of education system. The policy seeks to create relationship between supply and demand of teachers, it has not been, therefore, considered essential to open new teacher training institutions. The existing capacity of teacher training institutions shall be fully utilized and surplus demand shall be met by using teaching outposts to be established under Teacher Education Project and strengthening capacity of Allama Iqbal Open University.

1.9 For raising the quality of teacher education programs, the policy stipulates to raise minimum educational qualifications for primary teachers from matric to intermediate. Two parallel programs of F.A/F.Sc. education and B.A./B.Sc. education will be launched. The contents and methodology parts of teacher education curricular will be revised. The frequency and depth of in-service training courses will be increased by institutionalizing in-service programs through school clustering and other techniques.

1. 10 The private sector virtually disappeared from education sector as a consequence of nationalization in 1972. It re-appeared in 1979 as a result of an amendment in nationalization enactment. The government has recently established Educational Foundations for providing financial assistance to the private sector for opening non-commercial institution specially in rural areas. The re-entry of the private sector in education needs to relate itself to the overall objectives of the government policy. The

Education Foundations shall further be strengthened and the unplanned growth of the private sector shall be regulated so that it is brought in line with the overall national objectives.

1.11 The policy also places great emphasis on the quality of education. At the elementary level, a system of continuous evaluation will be adopted to ensure attainment of minimum learning competencies. The National Education Testing Service will be established to design and administer standardized tests for admission to professional institutions. Qualifying these tests will become a compulsory requirement for entry to professional education. This mechanism is expected to check the incidence of malpractice in examinations. Likewise, standardized tests shall be introduced for admission to general education in universities. The curricula at all levels of education will be reviewed for creating a relationship between education and environment. The libraries and library services will be strengthened to provide increased opportunities of self-learning.

1.12 Quality of textbooks has been a continuous source of concern. Sole-textbooks, which are prescribed up to secondary level are causing a number of problems in teaching, learning and evaluation of students. To solve this problem, a competitive system of multiple textbooks is being introduced at the secondary level. The availability of multiple-textbooks instead of sole- textbooks is expected to broaden the knowledge base of students and minimize the chances of rote learning.

1.13 To implement this policy in true spirit, almost 100% increased resources will be required. The Prime Minister of Pakistan in his address to the nation on 21st February, 1998 committed unequivocally that the total expenditure of the government on education will be raised from its present level of 2.8% to 4% of GNP, therefore, resources will be available to implement the policy.

1.14 Lack of political commitment, centralization of authority and absence of public participation have been identified as the main reasons for the failure of any policy or program. The policy has devised a comprehensive program to solve this tirade of problems. A comprehensive monitoring and evaluation system has been envisaged from gross-roots to the highest level. The District Education Authority will be established in each district to ensure public participation in monitoring and implementation. The Education Ministers at the Federal and Provincial levels will oversee monitoring committees, responsible for implementation at their levels. The Prime Minister and Provincial Chief Ministers will be the Chiefs of National and Provincial Education Councils respectively which will ensure achievements of targets.

2

CHAPTER

AIMS AND OBJECTIVES

2. AIMS AND OBJECTIVES

2.1 Education is a powerful catalyzing agent which provides mental, physical, ideological and moral training to individuals, so as to enable them to have full consciousness of their mission, of their purpose in life and equip them to achieve that purpose. It is an instrument for the spiritual development as well as the material fulfillment of human beings. Within the context of Islamic perception, education is an instrument for developing the attitudes of individuals in accordance with the values of righteousness to help build a sound Islamic society.

2.2 After independence in 1947 efforts were made to provide a definite direction to education in Pakistan. Quaid-i-Azam Muhammad Ali Jinnah laid down a set of aims that provided guidance to all education endeavors in the country. This policy, too has sought inspiration and guidance from those directions and the Constitution of Islamic Republic of Pakistan. The policy cannot put it in a better way than the Quaid's words:

2.2.1 You know that the importance of Education and the right type of education, cannot be over-emphasized. Under foreign rule for over a century, sufficient attention has not been paid to the education of our people and if we are to make real, speedy, and substantial progress, we must earnestly tackle this question and bring our people, in consonance with our history and culture, having regard for the modern conditions and vast developments that have taken place all over the world.

2.2.2 There is no doubt that the future of our State will and must greatly depend upon the type of education we give to our children, and the way in which we bring them up as future citizens of Pakistan. Education does not merely mean academic education. There is immediate and urgent need for giving scientific and technical education to our people in order to build up our future economic life and to see that our people take to science, commerce, trade and particularly well-planned industries. We should not forget, that we have to compete with the world which is moving very fast towards growth and development.

2.2.3 At the same time we have to build up the character of our future generation. We should try, by sound education, to instil into them the highest sense of honour, integrity, responsibility and selfless service to the nation. We have to see that they are fully qualified and equipped to play their part in various branches of national life in a manner which will do honour to Pakistan.

2.3. These desires of Quaid have been reflected in the Constitution of the Islamic Republic of Pakistan and relevant articles are:

2.3.1 The State shall endeavour, as respects the Muslims of Pakistan:

a to make the teachings of the Holy Qur'an and Islamiat compulsory, in order to encourage and facilitate the learning of Arabic language, and to secure correct and exact printing and publishing of the Holy Qur'an;

b to promote unity and the observance of the Islamic moral standards; and (31.a & b).

2.3.2 Provide basic necessities of life, such as food, clothing, housing, education and medical relief, for all such citizens, irrespective of sex, caste, creed or race, as are permanently or temporarily unable to earn their livelihood on account of infirmity, sickness or unemployment; (38, d).

2.3.3 Remove illiteracy and provide free and compulsory secondary education within minimum possible period (37.b).

2.3.4 Enable the people of different areas, through education, training, agricultural and industrial development and other methods, to participate fully in all the forms of national activities, including employment in the service of Pakistan; (37.f).

2.3.5 The State shall discourage parochial, racial, tribal, sectarian and provincial prejudices among the citizens (33).

2.3.6 Reduce disparity in the income and earnings of individuals, including persons in various classes of the service of Pakistan (38e).

2.3.7 Steps shall be taken to ensure full participation of women in all the spheres of national life (34).

2.4 The vision is to transform Pakistani nation into an integrated, cohesive entity, that can compete and stand up to the challenges of 21st Century. The Policy is formulated to realize the vision of educationally well-developed, politically united, economically prosperous, morally sound and spiritually elevated nation.

2.5 Objectives

2.5.1 To make the Qur'anic principles and Islamic practices as an integral part of curricula so that the message of the Holy Qura'n could be disseminated in the process of education as well as training. To educate and train the future generation of Pakistan as a true practicing Muslim who would be able to usher into 21st century and the next millennium with courage, confidence, wisdom and tolerance.

2.5.2 To achieve universal primary education by using formal and informal techniques to provide second opportunity to school drop-outs by establishing basic education community schools all over the country.

2.5.3 To meet the basic learning needs of child in term of learning tools and contents.

2.5.4 To expand basic education qualitatively and quantitatively by providing the maximum opportunities for free access of every child to education. The imbalances and disparities in the system will be removed to enhance the access with the increased number of more middle and secondary schools.

2.5.5 To ensure that all the boys and girls, desirous of entering secondary education, get the basic right because of the availability of the schools.

2.5.6 To lay emphasis on diversification so as to transform the system from supply-oriented to demand-oriented. To attract the educated youth with world-of-work from various educational levels is one of the policy objectives so that they may become productive and useful citizens and contribute positively as members of the society.

2.5.7 To make curriculum development a continuous process and to make arrangements for developing a uniform system of education.

2.5.8 To prepare the students for the world of work, as well as pursuit of professional and specialized education.

2.5.9 To increase the effectiveness of the system by institutionalizing in-service training of teachers, teacher trainers and educational administrators. To upgrade the quality of pre-service teacher training programmes by introducing parallel programmes of longer duration at post-secondary and post-degree levels.

2.5.10 To develop a viable framework for policy, planning and development of teacher education programmes, both in-service and pre-service.

2.5.11 To develop opportunities for technical and vocational education in the country for producing trained manpower, commensurate with the needs of industry and economic development goals.

2.5.12 To improve the quality of technical education so as to enhance the chances of employment of Technical and Vocational Education (TVE) graduates by moving from a static, supply-based system to a demand-driven system.

2.5.13 To popularize information technology among children of all ages and prepare them for the next century. To emphasize different roles of computers as a learning tool in the classroom, learning about computers and learning to think and work with computers. And to employ information technology in planning and monitoring of educational programmes.

2.5.14 To encourage private sectors to take a percentage of poor students for free education.

2.5.15 To institutionalize the process of monitoring and evaluation at the lowest and highest levels. To identify indicators for different components of policy, in terms of quality and quantity and to adopt corrective measures during the process of implementation.

2.5.16 To achieve excellence in different fields of higher education by introducing new disciplines/emerging sciences in the universities, and transform selected disciplines into centres of advanced studies, research and extension.

2.5.17 To upgrade the quality of higher education by bringing teaching, learning and research process in line with international standards.

3

CHAPTER

ISLAMIC EDUCATION

3. ISLAMIC EDUCATION

3.1 Conceptual Framework

3.1.1 Educational policy and particularly its ideological aspect carries perhaps the most vital place in the socio-economic milieu and moral framework of a country. Countries of the world, in order to build their destiny, evolve national policies reflective of their vision of the future, and take steps for the development of human resources necessary for the realization of that vision. Pakistan has a unique position on the map of the world. We are not a country founded on its territorial, linguistic, ethnic or racial identity. The only justification for our existence is our total commitment to Islam as our sole identity. Although the previous educational policies did dilate on Islamic education and Pakistan ideology but those policies did not suggest how to translate the Islamic ideology into our moral profile and imbibe it in our educational system.

3.1.2 Pakistan is an ideological Muslim state. Article 31 of the Constitution of the Islamic Republic of Pakistan clearly points out this aspect. It requires development of an educational policy to ensure preservation, practice and promotion of Islamic ideology and principles as enshrined in the teachings of the Qur'an and the Holy Prophet (p.b.u.h.).

3.1.3 Islam is not just a matter of belief. It is a complete code of life wherein science and technology, as well as social and human sciences, economic and cultural activities, in brief, all aspects of life are to be guided and determined by the principles of the Holy Qur'an and the Sunnah. Therefore, allocation of one or more hours in a week for teaching Islamic studies, memorization of a few shorter *surahs* of the Holy Qur'an or reading a few passages, selected from the Holy Qur'an, without knowing their implications for life, may serve a formal requirement to satisfy constitutional needs but it does not serve the spirit of the Constitution.

3.1.4 Progress and advancement of the countries of the world is always related to the kind of education they offer to their people. The secular western countries or the Marxist-oriented countries always make sure that their ideology is fully reflected and integrated in the educational system not only in social sciences but also in other disciplines. Secularism and materialism are the two sacrosanct principles of their educational approach. It is, however, important to note that western secular education allows, a few slots in their scheme of studies that deal with moral or religious education. This, however, does not change the basic secular character of their educational systems.

3.1.5 Pakistan is not a secular country, nevertheless, during the past fifty years, we did not dissociate ourselves from the colonial and secular concepts of education, in

which religious subjects were incorporated in the curricula. However, moral, ethical and religious vision is not allowed to penetrate and get fully reflected in the total educational system. While we talk about religious dimension of the new policy, this aspect cannot be overlooked. The missing relationship between our Islamic vision, ideology and educational system, will only defeat the purpose of even including Islamiat or Pakistan studies in our curricula.

3.1.6 For the past 50 years, different and opposite views have emerged in our educational system. Consequently, this system encourages a secular approach where a man does not mind visiting Masjid once a week or sometimes five times in a day, but his religious commitment is not reflected in his life style, economic, social, and cultural activities. The other world view is that of a traditional sectarian believer who regards his interpretation of religious doctrines as the only valid practice. Consequently, we have not been able to build the nation with an integrated vision and a clear direction for the future. It is high time that new educational policy should take into consideration the development of an integrated educational system in which our Islamic values, principles and objectives must be reflected not only in the syllabi of Islamic studies but also in all the disciplines.

3.1.7 *Aqidah* (one's conviction and faith) in Islam is not a matter of blind belief. It calls for the use of analytical faculty i.e. *"Shu'ur"* and *"tafakkur"* to be actively applied and after proper analysis to be translated into one's everyday life. This anti-dogmatic approach of Islam is inculcated through the Qur'anic and the *Sunnah* paradigm of education. Unfortunately, the dualistic vision of life, in which religious and secular realms of knowledge are clearly marked into *dunya* and *deen*, secular and the sacred, is even recognized by several classical Muslim scholars. They interpret religious sciences *i.e. ulum-ud deen* as a matter of *belief*, while worldly sciences *i.e. ulum ud-dunya* as a mundane, at activity. This approach needs to be empirically examined.

3.1.8 The Islamic epistemic change, at a personal level, leads to a qualitative change in one's social life. Economic, political, legal, and cultural aspects of the society are also remodeled on the foundation of a well-reasoned Islamic epistemology.

3.1.9 The importance of knowledge and culture in Islam is fully reflected in the Qur'anic ayah: *O my God! increase my knowledge (Al-Qur'an* 20:114) and the Prophetic tradition seeking knowledge is an obligation for all Muslims. One of the paramount attributes of Allah is His transcendent knowledge: *Lo! your God is Wise, and Aware (Knowledgeable)* (Al-Qur'an 6:83). It is essentially knowledge and volition which makes the human elevated over the angels. That is why, the angels were asked to bow down to recognize the transcendence of knowledge and to offer their cooperation to man in his volitional activities: *And We created you, then fashioned you, then told the angels: Fall you prostrate before Adam, and they fell prostrate, all save Iblis... (Al-Qur'an 7:11).*

3.1.10 That a knowledgeable person is superior to one who does not know, is underscored by the Qur'an in many places: *Allah will exalt those who believe among you, and those who have knowledge to high ranks. Allah is informed of what you do.* (Al-Qur'an 58:11). This centrality of knowledge and creation of a culture of knowledge appears to be the social norm of Islam. It rejects the unscientific thinking in its many forms, and places knowledge as the valid basis for social stratification; *Say unto them O, Muhammad, are those who know equal with those who know not? But only men of understanding will pay heed (Al-Qur'an* 39:9). It condemns with all possible force, the attributes of dogmatism, skepticism, and agnosticism.

3.1.11 Islam wants an attitude of critical thinking and deep knowledge *And the believers should not all go out to fight. Of every troop of them a party only should go forth, that they (who are left behind) may gain sound knowledge in al-Deen and that they may warn their folk when they return to them, so that they may beware. (Al-Qur'an 9:122).*

3.1.12 Development of clear thinking is a virtue encouraged to be inculcated among the believers: *Men who remember Allah, standing, sitting and reclining and contemplate the creation of the heaven and the earth (and say) our Lord, you created not this in vain. (Al-Qur'an* 3:191). The universe and all it contains, is presented as subject matter for man's contemplation, critical thinking, and meditation: *And He it is Who spread out the earth and placed there in firm hills and flowing streams and of all fruits, he placed therein two spouses (males and females). He coverth the night with the day. Lo! herein verily are portents for people who take thought. (Al-Qur'an* 13:3). In the following *ayah* in place of *ley qawmin yatafakarun,* it uses *ley qawmin ya'qiloon people with reason, aql, or intellect* (*Al-Qur'an* 13:4).

3.1.13 These and many other references in the Qur'an refer to those who seek knowledge, who conduct research, investigate, explore, interpret, introspect and reason out. This shows that Islamic vision of human conduct is based on a conscious rational and meaningful volitional behaviour. In short, it leaves no room for a dogmatic way of life.

3.1.14 That man must seek knowledge from all possible sources, revelation, nature, life as well as from others who know and have wisdom. It is an Islamic value: *And we sent not (as of our messengers) before you other than men on who We revealed. Ask those who know if you know not. (Al-Qur'an* 16:43 and 21:7). The Qur'an also refers to the sense of ethical responsibility, consciousness and knowledge which Allah creates in the personality of a scholar. The empowerment through knowledge should not make a scholar proud and arrogant. It should create in him tenderness, responsiveness and benevolence.

3.1.15 It appears that education without purpose is not the be-all and end-all of every thing. Education like art must also have a purpose. While knowledge is empowerment, a purposeless empowerment tends to be a form of tyranny. While knowledge is power, the problem with aimless power is that it corrupts absolutely. In the Qur'anic paradigm, *Iblis*, later on given a qualitative name Satan, was not an ignorant person. It was his egotism, self-conceit, and pride in excellence in knowledge which made him arrogant and rebellious enough to be condemned for ever. Similarly, *Abu Jahal*, another character in history was not an illiterate and uneducated person. It was his arrogant denial of the obvious truth which earned him the title *Abu Jahal* (father of ignorance).

3.2 Objectives

3.2.1 To fulfil the requirements of Objectives Resolution and Article 31 of the Constitution of Islamic Republic of Pakistan saying that education and training should enable the citizens of Pakistan to lead their lives according to the teachings of Islam as laid down in the Qur'an and Sunnah.

3.2.2 To evolve an integrated system of national education by bringing Deeni Madaris and modern schools closer to each stream in curriculum and the contents of education.

3.2.3 To educate and train the future generation of Pakistan as a true practicing Muslim who would be able to enter into 21st century with courage, confidence, wisdom and tolerance.

3.3. Policy Provisions

3.3.1 Teaching the Holy Qur'an with translation shall be introduced from class VI and will be completed by class XII.

3.3.2 The basic teachings of the Holy Qur'an shall be included in all the courses of studies.

3.3.3 Pre-service and in-service training programs for Islamiat and Arabic teachers will be ensured. They shall be given due respect and status among the teaching community.

3.3.4 To bridge the existing gulf between the formal education system and Deeni Madaris system and to eradicate sectarianism, the curricula of Deeni Madaris shall be upgraded and improved to enhance prospects of employment.

3.3.5 *Degrees/asnad* awarded by Deeni Madaris shall be equated with the formal degrees/certificates at all levels.

3.3.6 Recognition shall be given to these institutions by the Government.

3.3.7 In terms of Article No. 31 of the Constitution, the preservation, promotion and practice of the basic ideology of Pakistan, making Islam as an integral part of individual and national life with the purpose of reformation and development of society on the principles of the Qur'an and Sunnah shall be ensured.

3.3.8 Valuable and rare books on Islam shall be reprinted and distributed among Deeni Madaris for research and reference.

3.3.9 Curricula and textbooks of all the subjects shall be revised so as to exclude and expunge any material repugnant to Islamic teachings and values, and include sufficient material on Qur'an and Islamic teachings, information, history, heroes, moral values etc. relevant to the subject and level of education concerned.

3.3.10 Ideology of Pakistan and teachings of Islam must be made an integral part of all training programs (pre-service and in-service etc), including Pakistan Administrative Staff College, National Institute of Public Administration (NIPA), Armed Forces Academies and Staff Colleges etc.

3.4 Implementation Strategy

3.4.1 Islamiat shall be continued as a compulsory subject from class I to B.A./B.Sc. levels including professional institutions.

3.4.2 Nazira Qur'an shall form an integral part of Islamiyat compulsory for classes I to VIII.

3.4.3 Islamiyat, Arabic and the Holy Qur'an with translation shall be integrated in a single compulsory subject from class IX onwards.

3.4.4 The textbooks of Arabic and Islamiyat shall be updated.

3.4.5 New integrated textbooks shall be developed for classes IX-XII.

3.4.6 Teachers' guides shall be developed and disseminated.

3.4.7 Teacher shall be considered the focal point for dissemination of information on fundamental principles of Islam as laid down in the Holy Qur'an, and as applicable to the development of an egalitarian Muslim society. For this purpose, extensive in-service training programs will be conducted. The curricula of pre-service teachers' training shall have a compulsory component of Islamic education including *Uswa-e-Hasana*, Nazira Qur'an with translation and principles and methods of teaching

Islamic courses. This concept will be interwoven in all the subjects of professional training institutions.

3.4.8 The Ministry of Education shall be responsible for the training of *Master-Trainers* at secondary and higher secondary levels.

3.4.9 At grassroots level, the provinces shall impart training under a crash program by utilizing the services of Master Trainers trained by the Federal Ministry of Education.

3.4.10 Two posts, one of Qari for teaching Nazira Qur'an and the other to teach the Holy Qur'an with translation, shall be created in each teacher training institution by the provinces.

3.4.11 Meaningful and useful charts on selected Qur'anic Ayat with translation shall be published and provided to all schools.

3.4.12 All possible means, and resources, strategies such as, electronic and print media shall be used for teaching Nazira Qur'an with translation for disseminating information on Islamic values and Islamic World view at national and international level.

3.4.13 Institutes of Education and Research shall open separate centers for undertaking research on the contents of Islamic education for inclusion in the courses at various levels, and on methods of teaching Islamic ideology.

3.4.14 Schools and colleges, during morning assemblies and during the periods set aside for religious and moral education, shall emphasize character building, high moral values, and create an environment for societal development, patriotism and discipline based on the injunctions of the Qur'an and Sunnah.

3.4.15 The work and contribution of Muslim philosophers shall form a compulsory part of the teaching of curricula at appropriate levels of education.

3.4.16 In lieu of Islamiyat as a compulsory subject for Muslim students, moral education/ ethics has been provided as an alternate to the non-Muslim students. *Status-quo* will be maintained.

3.4.17 To bring the formal education and Deeni Madaris close to each other and to facilitate horizontal mobility of students with the ultimate aim of integrating the two systems, the following steps are proposed:

i. **Establishment of Deeni Madaris Board:** For uniform standards of Deeni Madrssah Education through registration, standardization of curricula and examination system, equivalence of asnad, award of foreign scholarships, grant-in-aid and financial assistance by government

a Deeni Madaris Board shall be established. All the willing Wafaqs/ Tanzeem/ Rabita and independent Madaris will be eligible for affiliation to this Board. A draft Act recently prepared by the Ministry of Education in consultation with the Ministry of Religious Affairs shall be processed for legislation.

ii. **Establishment of Model Darul Uloom:** To absorb the graduates of these institutions in the market for technical, vocational and formal educational courses, a few model Deeni Madaris shall be established by the Government under a phased program as under:

a. The existing Sheikh Zayed Islamic Centers at Lahore, Karachi and Peshawar Universities, shall be converted into model Deeni Madaris by introducing Dars-i-Nizami, modern subjects as well as technical and vocational subjects.

b. Later, on the same pattern, Model Madaris shall be established at divisional level throughout the country.

iii. To integrate Deeni Madaris system with the formal education system, some formal school subjects like English, Math, General Science, Economics and Pakistan Studies, etc. shall be included in the curricula of Deeni Madaris and their Asnad at Matric, Inter and graduate levels shall be equated with the formal education. All the willing Madaris shall be provided suitable financial assistance for payment of salaries to the teachers.

iv. All the incentives to Madaris like re-printing of selected textbooks and their distribution amongst the Madaris, annual grant-in-aid, imparting training to their teachers through workshops, improvement of the libraries, etc. shall be continued and extended. For this purpose, new development schemes will be prepared and approved in the light of the previous schemes.

v. Opportunities of pursuing higher studies for the students of Madaris, shall be provided in the appropriate fields of studies.

vi. The particulars of Madaris shall be updated through surveys and the reports shall be compiled suggesting measures for improving the system.

vii. All the facilities and concessions available to the students of formal education shall be admissible to the students of affiliated Madaris.

4

CHAPTER

LITERACY AND NON-FORMAL EDUCATION

4. LITERACY AND NON-FORMAL EDUCATION

4.1 Conceptual Framework

4.1.1 The International literacy year (1990) provided an opportunity to renew the commitments for ensuring a fully literate world. The two principal messages of the year were (a) that literacy matters and it matters greatly and (b) that the provision of education is, above all, a public responsibility but there is a role for every one including private sector, Non-Governmental Organizations (NGOs), Community Base Organizations (CBOs) and other allied organizations to ensure the basic human right. There is a need for grand alliance between and among the government, private sector and the donors.

4.1.2 Basic literacy and numeracy may not by themselves constitute a guarantee to a better quality of life for all but they are definitely a crucial part of individual development and social participation. However, it is an incorrect notion, that literacy and numeracy can be achieved in isolation from the social context in which they operate. This confusion has significant consequences. The developed countries are faced with increasing evidence of the superficiality of literacy levels achieved by large sections of communities. In developing countries, the spiral of literacy development is consistently swamped by the population growth, poverty, health and problematic subsistence. However, basic literacy skills do not guarantee functional literacy and in both the developed and developing nations, the problem of relapsing into illiteracy is a significant one. Functional literacy can not extend automatically, if there are no books to read or no willingness to do so; if there is no purpose to write; and above all, if there is no desire to change from traditional or practical methods of communication and work.

4.1.3 However, against a diversity of extreme scale in the languages, population concentrations, religions, cultures, economics and politics of Asia and Pacific, some outstanding achievements have been made. The Bangladesh Rural Advancement Committee (BRAC) program of Bangladesh is one good example of success but the major objection against the program is that it is donor-driven. According to some estimates more than 90% of the money is provided by the donors which raises a basic question of sustainability of the program on long term basis. Strictly speaking, educational systems in most of the developing countries of Asia, Africa and Latin America mainly comprise institutionalized teaching premises, narrowly identified sub-systems and rigid infrastructure for formal education. These systems are administered and managed by government authorities.

4.1.4 Conventional educational resources are limited in every society. Institutions, professional educators, teaching aids and educational technologies are a small part of real available resources for education and learning. Even in societies with highly

developed resources, with universal opportunities for early education, and with widespread colleges and powerful mass media, there is a glaring discrepancy between these facilities and real learning potentials. This is even more true in developing countries, where the majority of the population still learns in traditional environments, in a non-institutionalized way and lives largely in the oral civilization, with its own communication pattern.

4.1.5 In Pakistan, the overall strategy, during the period from 1947 to 1997 has remained one of expansions of the existing system and efforts have been directed solely to the establishment of more of the existing type of formal institutions. Thus more and more replication of the existing model has been the major approach to the solution of the problem of education sector. After spending scarce resources we have come to the conclusion that our approach of mere expansion has been very simplistic. It has created problems associated with the unequal provision of facilities. Rich conditions of learning as they exist in a few selected institution are in sharp contrast to the total lack of basic amenities and physical facilities. In spite of the huge investment made, the successive failure of the loud promises made in every plan and with every educational policy and putting off the well marked out deadlines, has created a credibility gap.

4.1.6 In Pakistan, the current literacy rate is estimated at 38.9 percent. It is 50 percent for males and 27 percent for females (Economic Survey 1996-97: page 115). The female literacy for rural areas is not more than 8 percent. It is estimated that the stock of literate in 1992-93 was 29.65 million while the population of 10 years and above was 83.77 million (Eighth Five Year Plan: 1993-98: page 315). By the year 1998, the population of 10+age group will rise to 96.69 million. The addition to the literate population during the five-year (1993-98) period was estimated to be 18.83 million. The lower priority to adult literacy was manifested from the First Five-Year Plan (1955-60) to the Third Five Year Plan (1965-70) when no financial allocations were made for the promotion of literacy, hence no targets were set either.

4.1.7 The Eighth Five Year Plan (1993-98) allocated Rupees 1.750 billion (US $ 43.75 million approx.) for Adult Literacy Programs to make 16.86 million people literate. This comes to about Rupees one thousand per person to become literate. For the attainment of the objectives and the targets of this policy in letter and spirit, a comprehensive pragmatic, realistic, and well-monitored plan of operation should have been prepared.

4.1.8 The sociological parameters, which exist in developing countries like Pakistan, are dialectically different from those prevailing in the developed countries. The yoke of imperialism has been replaced by the spirit of self-reliance, creativity, pride in indigenous and national achievements. The nation is on the threshold of a renaissance, hoping to usher into the 21st century with vigour, strength and pride.

4.1.9 The result of the formal institutional structure is that millions of children have been deprived of elementary education not because institutional facilities did not exist but primary education clashed with their jobs, since it was organized only as a full time program during daytime. Alternatives comprising part-time education, evening classes, multiple point entry, non-formal education programs for early school leavers, etc. are other efficient substitutes to ineffective schooling patterns. In stagnated rural areas, institutionalized education has proved to be of little effect. It may be said to have been unable to promote greater vitality in production processes through agricultural training. In other words, education in this instance would not be responding to the rural environment in the sense of promoting effective channels for integrated development.

4.1.10 Other factors, similarly contributing to the low level of educational efficiency and productivity in rural areas are, the poverty of families; the use of child labor; infant malnutrition; health; social and cultural situation; the high mortality and morbidity levels; and deficit housings. Moreover, the sanitary conditions; illiteracy of the students; parents and relatives; the differing values of the family; the area; and the educational establishments also add to the complexity of the situation without benefiting the masses. In spite of this situation, the school education has not taken appropriate forms of adaptation. Hence, children either do not attend the school or leave early. In many instances, the school does not promote community activities or use the existing infrastructure, and fails to associate its programs with the community or with its various basic representative groups such as the parent associations. Therefore, it fails to fulfil the outstanding role as expected from it by the rural communities.

4.1.11 The limitations of language employed in the educational process, the inadequacy of school calendars, deficit programming of school activities, low availability of the teaching staff and absence of mechanism to facilitate a better use of their capabilities aggravate the foregoing problems.

4.1.12 The non-formal education, is now receiving a growing awareness and acceptance as a dominant approach to the education of future. The idea is certainly not a new one. The practice is almost perennial. The consciousness that learning has to be co-existent with life is as old as mankind. All traditional societies had, in one way or the other, some learning practices within all periods of one's life and as part and parcel of one's overall activities. It is only in the more recent times that learning and education became time-bound and space-bound, mostly limited to some age groups, predominantly professionalized, institutionalized and sociologically and pedagogically paralysed. This reflects in reality the basic trends in the global evolution of our contemporary societies, which are increasingly over organized and over structured, leaving less and less scope for creativity, imagination, choice and peoples real participation. Educational systems and learning facilities mirror the same trends and societal characteristics. They are not, and cannot be, exceptions in the overall rules of the human universe. The increased emphasis on non-formal learning stems from the awareness that institutionalized, time and space-bound education does not correspond to

the requirements of today's societies. Hence, non-formal learning concept today is more a comprehensive answer to the identified needs, based on an integral educational philosophy, rather than piecemeal and diffused practices stimulated by working or living exigencies.

4.1.13 This emphasis comes not as a result of trends towards more and more formalized satisfaction of learning needs but as a consequence of unsatisfactory results achieved through such policies and strategies and from the inadequacy of formal schooling as the way to literacy, knowledge, understanding, cognizance, skills and the capacity of dominating natural and societal forces.

4.2 Objectives

4.2.1 To achieve the global objective of Education for All and All for Education.

4.2.2 To complement and supplement the formal system to achieve the target of Universal Primary Education (UPE) through community involvement in the shortest possible time.

4.2.3 To impart functional literacy for adolescent (10-14) who missed out the chance of primary education.

4.2.4 To provide lasting functional literacy and income generation skills for rural women of 15 to 25 age group.

4.2.5 To provide the basic educational facilities to working children and reduce the child labor.

4.2.6 To expand the facilities and services of middle level education through community involvement and non-formal means.

4.3 Policy Provisions

4.3.1 Democratization of education through the expansion of elementary education both formal and non-formal methods, and expanded programs of adult education, literacy and functional literacy programs, as a basic requirement for economic development, modernization of social structure and for providing equality of opportunity for all citizens.

4.3.2 Pakistan's international commitment to double the rate of Literacy by the year 2000 cannot be accomplished without achieving universal primary education (UPE). This will be achieved by complementing the formal primary school system by a strong non-formal basic education initiative.

4.3.3 A massive Non-Formal Basic Education Program, on a war footing, will be launched to provide access economically and expeditiously to all the 5.5 million primary school age (5-9 year old) children who are at present out-of-school. The 10-14 year old adolescents and youth who have missed primary education, will be given a second chance through a crash condensed course to enable them to complete primary education cycle in 2-3 year time.

4.3.4 The Asian Development Bank sponsored pilot project for 15-25 year old rural women on successful completion, shall be replicated nationwide.

4.3.5 Attainment of literacy, social, and occupational skill training programs will equip the beneficiaries with appropriate income generation skills to ensure socio-economic development of Pakistan. Educated unemployed adults will also be able to benefit from these skill training programs.

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4.3.6 Additional strategies, such as the tested Qur'anic Literacy Program and other methods in collaboration with the other sectors, will be used to achieve universal literacy.

4.3.7 A Literacy Fund will be created to finance the literacy movement in the country.

4.4 Physical Targets

4.4.1 The current literacy rate of about 39% will be raised to 55% during the first five years of the Policy and 70% by the year 2010.

4.5 Implementation Strategies:

4.5.1 National Literacy Movement' will be launched on emergency basis in every village, tehsil and district. All Parties Accord on elimination of illiteracy and to make the society free from illiteracy by the year 2010, will be achieved.

4.5.2 Mosques, wherever feasible, will be utilized as one of the means to provide non-formal basic education to increase literacy.

4.5.3 PMLC will prepare a plan of action, in consultation with Provinces for a co-ordinated effort in the National Literacy Movement.

4.5.4 The Prime Minister's Literacy Commission which is the Apex body entrusted with the task of raising literacy rate, will be strengthened as a Statutory Body to enable it to discharge its functions effectively within the minimum possible time. Adequate funds will be ensured to implement policy targets.

4.5.5 All the appointments in the Non-Formal Basic Education Community Schools/Centers will be made locally, in consultation with the community, without any political interference.

4.5.6 All the industrial units registered under the Factory Act would consider it mandatory to make the employees and their dependents literate. Similarly all the federal as well as provincial agencies like WAPDA, Pakistan Steel, Directorates of Industries, OPF, Chambers of Commerce, PTV, PBC etc shall be entrusted the same responsibility.

4.5.7 Another useful resource, available in the country in the form of Boy Scouts and Girl Guides, can be effectively used in the expansion of literacy programs. It is estimated that there are more than 870,000 Boy Scouts and more than 320,000 Girl Guides in Pakistan. These young people have the physical capacity, intellectual motivation, emotional stability , spiritual commitment and, above all, basic knowledge and experience to work with communities collectively in difficult circumstances. They can be entrusted with the responsibility to implement some of the non-formal programs. Based on the performance and quality of service rendered, a system of merit certification shall be introduced.

4.5.8 The existing Non-Formal Basic Education Community Schools/Centers will be increased to 82,000 (including the existing 7000) by the year 2002 to meet policy targets of primary education both through formal and non-formal methods to enroll 5.5 million out-of-school children. The NFBE Community Schools will neither be a parallel nor a permanent system, but will be used to accelerate universal access till formal schooling becomes available to the un-reached.

4.5.9 The proposed targets for both the formal and non-formal basic education schools will need to be revised in the light of the Census results made available by the end of the year.

4.5.10 In unreached areas 25000 NFBE Community schools will be gradually upgraded to the middle level, over the policy period.

4.5.11 The implementation would require further resource inputs and infrastructure at Union council, district, province and national level. At the national level, the PMLC would co-ordinate with the operational structures at the sub-national level. A major function of the national structure would be to catalyze coordination in both planning and implementation at National-Provincial, and Inter-provincial levels. Similarly, at the provincial level, each provincial structure would catalyze coordination between provincial-district, and inter-districts, and in a similar mode at the district and union council levels.

4.5.12 PMLC will involve and encourage all the organizations, particularly Allama Iqbal Open University (AIOU) in the development of teacher training packages, learning

materials, teaching aids, etc. The AIOU will also be involved to develop post, literacy skill training programs through distance learning. The teachers of NFBE Community Schools will be encouraged to take up PTC and CT courses of the AIOU to enhance their skills.

4.5.13 Literacy Corps comprising of College/University students/teachers shall be established for literacy programmes during vacations.

4.5.14 *Khankahs/Mazars* shall donate a portion of their earning to the literacy fund.

4.5.15 Development grants to local governments shall be linked with literacy programmes.

4.5.16 If an illiterate prisoner becomes literate, the duration of his/her imprisonment shall be condoned accordingly.

4.5.17 Driving and ammunition licenses shall be given only to literate persons.

4.6 Communication Support System

Radio and television will play a crucial role and be extensively used for social mobilization and promoting the cause of basic education, particularly amongst rural females. Media will also be used to impart life skills to the neo-literates.

5

CHAPTER

ELEMENTARY EDUCATION

5. ELEMENTARY EDUCATION

5.1 Conceptual Framework

5.1.1 "Elementary education is the fundamental right of all people, men and women, of all types of areas and places, irrespective of gender, sect, religion or any other denomination. Everyone has the right to education" states the Universal Declaration of Human Rights (1948). This fundamental right has also been recognized in the Convention on the Rights of the Child (1989) stressing that the child has a right to education, and the State's duty is to ensure that primary education is free and compulsory.

5.1.2 Elementary education, which is the bedrock and foundation of the entire education pyramid, has the highest rate of return as compared to other sectors and levels of education. Research studies indicate that rates of return to investment in education are commonly high, especially at the primary level, and argue that investment in education makes a vital contribution to economic development. Both private and social rates of return at primary level are comparatively higher than secondary and tertiary levels. The average private rate of return is 29% at primary, 19% at secondary and 24% at the tertiary level. Similarly, the social rate of return is 27% at primary, 16% at secondary and 13% at the tertiary level. The private rate of return is the highest in the developing countries in Asia. Besides, beginning with the marginal social rates of return, the first years of elementary schooling, generally yield the highest returns, additional years of education yielding progressively lower rates of return.

5.1.3 Comparison and analysis of socio-economic development indicators particularly, amongst the countries of South Asian Region, provide convincing evidences to the fact that elementary education and literacy have deep, direct and determining effects on overall development of the country. Educationally developed countries of this region have made substantial progress not only in social but also in the economic sector. All countries of the region such as Malaysia, South Korea, Singapore, Indonesia, Sri Lanka and Maldives achieved remarkable progress in elementary education, and they have in turn secured and sustained very high per capita GNP and vice versa.

5.1.4 Education and empowerment of girls and women are key factors in contributing to social development, well being and education of present and future generations. Certainly, it is more expensive and costly to keep a girl illiterate and uneducated than educating her. Unfortunately, girls and women enjoy less than an equal opportunity to participate in education.

5.1.5 Concerted efforts are being made to eradicate illiteracy and promote primary education all over Pakistan in collaboration/coordination with the foreign donor agencies. For the purpose, a number of development projects/programs in the areas of

primary/elementary education are being implemented with the assistance of World Bank, Asian Development Bank, United Nations Development Program, UNESCO, UNICEF, ODA, Japan International Cooperation Agency, NORAD, GTZ, OPEC, EEC and other donor agencies.

5.1.6 The current elementary education policy has been based on agreed themes and strategies of Social Action Program (SAPP II) such as improving the quality; expanding access for out of school children especially disadvantaged groups; improving management and supervisory services; capacity building and institutional development; and financial sustainability as proposed in the report titled *Elementary Education Strategy 1997* and UN Inter Agency Mission Report titled *Opportunities and Challenges*.

5.1.7 Goals and targets in elementary education have been set in view of the past experiences, present status, future needs and requirements and available resources and capacity, as well as International Commitments such as World Declaration on Education For All (1990); Delhi Summit Declaration (1993) and subsequent E-9 Ministerial Review Meetings; and UN Convention on the Rights of the Child (1989).

5.1.8 In 1996-97, out of total 19.22 million primary school age (5-9 years) population, only 13.72 million were in school and 5.5 million were left-out, who were never enrolled. This represented gross enrolment rate (GER) of 71% (male 85.5% and female 58%), whereas, at middle level (VI-VIII) gross enrolment were 4.35 million against total 9.5 million population of respective age group i.e. (10-12 years). The gross participation rate (1996-97) was 46% (male 56% and female 35%).

5.1.9 At present, the total number of primary schools in the public sector are 145,960, including about 37,000 mosque schools. One third of primary schools are female schools. In addition, 7,177 Non-Formal Basic Education Schools are run by the Prime Minister's Literacy Commission. About 30% schools are under-utilized. More over, there is a considerable number of ghost schools across the country. Middle schools in public sector are 15,000 against 6,430 female schools. However, around 11,000 high schools in the country also provide middle level (VI-VIII) education. Total number of educational institutions for middle level education in the public sector is 26,000.

5.1.10 Financial constraints and inability of the provinces to meet the ever increasing recurring cost, especially teachers' salaries, has resulted in a very limited increase in the number of teachers. Presently, a total of 339,500 teachers in the public sector are teaching at the primary level. Approximately 33 percent or 117,600 are female teachers. The distribution seems artificial because there is an acute shortage of female teachers, especially in the rural areas which has been adversely affecting the development of girls' primary education.

5.1.11 The shortage of physical facilities and equipment is a critical issue in primary schools. According to the latest estimates, about 25,000 primary schools are without school buildings. Many of the schools are without boundary walls. Most of the one-room schools in the rural areas are made of a mixture of mud, bamboo and wood (Kacha school). Majority of the schools do not have toilets and water facilities. There is also a shortage of desks, chairs and some schools do not even have mats for the school pupils to sit on. However, blackboards and pieces of chalk are available in most of the schools. Teaching kits were developed and distributed to 30 percent of primary schools in early eighties, but it was found that teaching kits were locked in the Headmistress's or Headmaster's room and were never used. Generally, pupils do not have textbooks because of high cost. A sufficient number of middle schools are not available to accommodate primary school graduates specially in the rural area. Similarly proper, competent teachers have not been provided to middle schools.

5.1.12 Major issues and challenges of the elementary education are summarized as under:

i. More than 5.5 million primary school age (5-9) children are left outs.

ii. Approximately 45% children drop out of school at primary level.

iii. Teacher absenteeism is common in schools, especially in the rural areas. Teacher commitment and motivation is lacking.

iv. Instructional supervision is weak at elementary level.

v. About one-fourth of primary school teachers are untrained. However, the present training infrastructure does not appear to improve the quality of instruction.

vi. Learning materials are inadequate and of poor quality. Teaching methods are harsh and uncongenial for learning and motivating pupils.

vii. Above all, character building which is the basic and fundamental objective of education and training is neglected, creating serious problems both for the individual and the nation.

5.2 Objectives of the Elementary Education

5.2.1 To integrate primary and middle level education into elementary education (I-VIII).

5.2.2 To enhance gross participation rate at primary level from existing 71% to 90% by the year 2002-3 and 105% by 2010.

5.2.3 To increase participation rate at middle level from 46% to 65% by 2002-3 and 85% by 2010.

5.2.4 To enhance retention and completion of primary education cycle up to 90% students (both boys and girls) by the year 2010.

5.2.5 To ensure achievement of minimum level of learning up to 90% primary education students by the year 2010.

5.2.6 To expand and strengthen the base for secondary education.

5.2.7 To meet the basic learning needs of the child in terms of essential learning tools as well as the basic learning contents.

5.2.8 To reduce the existing disparities to half by the year 2010.

5.3 Policy Provisions

5.3.1 Quality of elementary education shall be improved.

5.3.2 Access to elementary education shall be increased through effective and optimum utilization of existing facilities and services as well as provision of new facilities and services.

5.3.3 Character building, oriented towards humanism, tolerance, and moral-build-up on Islamic lines at elementary level, shall be assigned top priority.

5.3.4 Teachers' competence shall be improved and the relevance of training programs for teachers shall be ensured.

5.3.5 Kachi class at primary level shall be introduced as a part of the effort to improve the achievement of pupils.

5.3.6 The role of the family, school, community, non-governmental organizations and the media in the provision of elementary education shall be maximized.

5.3.7 Disparities and imbalances of all types, shall be eliminated so as to promote equity.

5.3.8 High priority shall be accorded in the provision of elementary education to the out-of-school children.

5.3.9 Financial resource base of elementary education shall be diversified.

5.3.10 Non-formal system shall be adopted as complementary to formal system.

5.3.11 A monitoring system shall be developed to obtain timely and reliable information on enrolment, retention, completion and achievement. In addition, the qualitative monitoring of achievement shall also be introduced.

5.3.12 Management and supervision shall be improved through greater decentralization and accountability in service delivery.

5.4 Physical Targets

In order to increase the access and improve the quality of elementary education following additional facilities and services shall be provided as listed below:

Physical Targets in Elementary Education

Facilities/Services	Bench Mark 1996-97	9th Plan Target 2002-2003	Policy Target 2010	% increase
New Formal Primary Schools	145,000	162,000 (+17,000)	190,000 (+45,000)	31%
Mosque Schools	37,000	40,000 (+3,000)	57,000 (+20,000)	54%
Double Shift in existing primary schools	-	20,000	20,000	-
Non-Formal Basic Education School	7,177	82,177 (+75,000)	2,50,000 (+242,823	3485%
Up gradation of primary schools to middle/elementary level	15,000	30,000 (+15,000)	60,000 (+45,000)	200%
Recruitment of additional teachers for primary schools	339,500	382,200 (+42,700)	439,000 (+99,500)	29%

5.5 Implementation Strategy

Quality

5.5.1 *Teachers*

i. Service structure shall be revised and transparent personnel management mechanism to promote merit-based hiring of teachers shall be instituted.

ii. Teachers shall be assigned to schools on the basis of empirical need and transfer rate shall be reduced by recruiting local teachers for schools.

iii. Attendance and leave regulations shall be revised and enforced and strict action shall be taken to check teachers' absenteeism.

iv. In-service training for existing teachers shall be revamped and over a period of five years, all elementary school teachers shall be provided with in-service training opportunities and resultantly in-service training on a 3-year cycle basis shall be institutionalized.

v. In-service teacher training shall be reformed and strengthened and existing best practices such as cluster delivery mechanism, mobile teacher training experience in Balochistan, the Aga - Khan experience in Northern Areas, Teacher Resource Centers (TRCs), etc. shall be evaluated and replicated. Quality improvement centers will be established in Community Model Primary Schools.

vi. Entry qualification for Primary Teacher Certificate shall be raised from Secondary School Certificate to Higher Secondary School Certificate gradually. Simultaneously a new stream of (10+3) Diploma course for elementary education will be launched.

vii. Pre-service teacher training shall be reformed by including the revision of the curricula, revamping textbooks and instructional materials in the training programs.

viii. A clear career structure for teachers at elementary level shall be instituted including promotion possibilities, revising and enforcing the standards of professional behavior.

ix. Better distribution and optimum utilization of teachers shall be ensured. Teaching force shall be redeployed from schools where there is a surplus to the schools where there is a shortage.

x. Annual Confidential Reports (ACRs) shall be revised to record performance and link performance to promotion possibilities.

xi. The incentives and accountability system for teachers to improve their performance shall be institutionalized.

xii. Qualification for appointment shall be relaxed where no female teacher is available.

xiii. Age limit for female teachers shall be relaxed to facilitate entry into the profession.

5.5.2 *Innovations in Teacher Training*

i. Learner-oriented teaching, with the learner, i.e. the child, at the center of the learning process shall be focused.

ii. The new concepts such as active learning, development of critical thinking and creativity shall be introduced.

iii. The complexity of teaching young children at initial grades shall be researched and reflected in a suitable training program.

iv. Highly interactive, learner-centered teaching and training materials shall be produced and utilized.

v. Many forms of teaching and learning, e.g. peer group discussion, class observation, distance education, self-study, on-site visits and multi-grade teaching shall be invoked.

vi. Integration of teaching theory and practice shall be ensured with increased weightage to the latter..

vii. Pedagogy with content of knowledge shall be integrated.

viii. Training shall be taken to the teacher (school site) rather than bringing the teacher to the training site.

ix. Not only teachers but also heads, supervisors and other critical stakeholders in the system shall be focused.

x. Training programs shall take into consideration teachers' on-ground conditions such as motivation, concerns, knowledge, available time and resources, etc.

xi. Partnerships between the public and the NGOs/private sector shall be developed to expand and improve teachers training.

xii. Training needs shall be assessed systematically through consultation with teachers and designing the programs according to their priority needs.

5.5.3 *Textbooks and Instructional Materials*

i. Procurement of textbooks shall be non-monopolized along with improving their quality and lowering the cost.

ii. 'Takhti' and 'slate', at primary level shall be introduced again.

iii. Substantial increase shall be ensured in the non-salary recurrent expenditures on texts, basic school supplies, learning materials and procurement and distribution mechanism shall be improved.

iv. An adequate supply of basic textbooks and availability of learning materials free of charge for the poor children, shall be ensured at the start of the school year.

v. Similarly the availability and use of supplementary reading materials, library books and children literature shall be ensured.

5.5.4 *Curricula*

i. Uniform curricula for all the public and private schools shall be adopted gradually.

ii. All curricula (grade 1-12) shall be re-vamped making it a systematic whole and linking it to teacher training and textbooks reform.

iii. A new and more logical, demanding and challenging curricula shall be developed taking into account the provincial reservations involving the stakeholders in the process.

iv. Emerging key issues, such as, computer literacy, population and environmental education, health education, AIDS education, and values education, etc. shall be increasingly introduced and integrated in curricula.

v. The span of primary/lower elementary education including kachi class shall be of six years.

vi. Kachi class shall be institutionalized in the primary cycle gradually and progressively.

5.5.5 *Access*

i. Approximately 45,000 New Formal Primary Schools including 20,000 Mosque School and evening/second shift in 20,000 existing primary schools shall be opened. 99,500 additional teachers for new primary schools shall be recruited. Whereas, 45,000 primary schools shall be upgraded to Middle level improving the existing ratio of 1:6 between middle and primary schools to 1:3 by the year 2010.

ii. New schools and classrooms shall be constructed where objective demographic criteria indicate their urgent need. Preference shall be given to female schools.

iii. The performance of existing schools shall be improved and their full and optimum utilization shall be ensured. New schools shall be constructed only where need is empirical, transparent and validated by independent monitors. Schools shall be located as close as possible to clusters of homes where children live rather than where influential people may prefer to have them.

iv. Area/district based targets and programs shall be developed for the promotion of elementary education and literacy which may be supervised by District Education Authority.

v. An incentive-oriented approach shall be adopted for the communities, villages and areas proportionate to their degree of accomplishment and success in elementary education.

vi. Priorities for building work of schools shall be:
   a. shelterless schools;
   b. dilapidated schools;
   c. new classrooms in overcrowded schools;
   d. repair inadequate schools and
   e. provide facilities (water supply, boundary walls, toilets, etc.)

vii. Major repairs shall be completed wherever it is needed, in cooperation with local level Education Committees.

viii. Free and compulsory Primary Education Act shall be enacted and enforced in a phased manner.

5.5.6 *Management and Supervision*

i. Larger number of competent and committed learning coordinators (LCs) and supervisory staffs shall be deployed. Center/cluster school scheme shall be expanded and strengthened for effective management and supervision of schools.

ii. District Education Officers (DEOs), Assistant District Education Officers (ADEOs), Learning Coordinators (LCs) and Village Education Committees (VEC) shall be imparted training in management and VEC

organization so as to improve the quality of administration and teaching in the schools.

iii. The technical support to teacher shall be strengthened and ensured that its performance is appropriately and accurately monitored and sanctioned accordingly.

iv. A report shall be prepared assessing implementation issues and potential barriers to the administrative consolidation and a 5 year plan to achieve the integration shall be developed and implemented.

v. A coherent system of elementary education shall be designed from Grade 1-8 by putting together government primary and middle schools. Elementary Education Directorates shall be strengthened to promote elementary education and redress the administrative and other issues.

vi. Planning, management, monitoring and evaluation capacity of Federal Education Ministry and Provincial Education Departments shall be increased and strengthened.

vii. Massive popular campaign will be launched mainly to associate communities in the establishment, renovation, repair and maintenance as well as supervision of schools. "Education for All through All" shall be the key plank for achieving policy targets.

viii. Selected management functions in elementary education shall be decentralized towards the district, the school and the community, while helping communities and local bodies organize their efforts more effectively.

ix. Number of holidays/vacation shall be reduced.

5.5.7 *Examination and Assessment*

i. National assessment capacity shall be built by laying down a set of procedures to monitor the aggregate performance at grade five and grade eight level.

ii. Monitoring and evaluation system shall be revised to enable provincial officials to assess school-level performance and study, the associated reasons for their success and failure.

iii. School-level assessment capacity of teachers shall be improved to measure accurately the student learning.

iv. Participatory processes shall be introduced to solicit from parents and other stakeholders their views for improving teaching.

v. The current examination system administered at the end of primary and middle level shall be reformed.

5.5.8 *Character Building and Personality Development*

i. Code of ethics for teachers shall be developed and enforced. Teachers shall be required to act as a role model failing which there shall be strict accountability. Teachers who will present themselves as a role model shall be awarded.

ii. Each educational institution shall design and effectively implement programs and activities for comprehensive personality development of child particularly moral development.

iii. A set of moral values shall be specified/focussed in each grade from Kachi to VIII for practical training and Tarbiyya through various activities such as morning assembly, speeches, declamation contests and other literacy programs, games and sports, compulsory `salat' in school premises, social welfare work, competition in cleanliness etc. Special awards and incentives in the form of special marks in admission and promotional exam etc. shall be given to the students who observe these values.

5.5.9 *Political Will*

i. A high level bipartisan political approach to persuade politicians to lend support to primary education in achieving policy objectives and resource mobilization and to agree not to be involved in micro management of primary schools shall be adopted.

5.5.10 *Monitoring*

i. Performance review studies shall be conducted on key sectoral institutions and restructuring and development activities as appropriate.

6

CHAPTER

SECONDARY EDUCATION

6. SECONDARY EDUCATION

6.1 Conceptual Framework

6.1.1 Secondary Education (IX-XII) is an important sub-sector of the entire education system. On one hand, it provides middle level work for the economy and on the other, it acts as a feeder for the higher levels of education. The quality of higher education, which is expected to produce high quality professionals in different fields of social, economic, and political progress of the country hinges on the quality of secondary education. This level of education, therefore, needs to be revamped in such a way that it prepares young men and women for the pursuit of higher education as well as prepares them to adjust to their practical lives meaningfully and productively.

6.1.2 Secondary education is a stage, where a student enters adolescence. This is the most crucial stage of life. The basic perceptions and modes of behavior start taking shape and problems of adjustment with the new roles in life assume critical significance. Four years of secondary education, therefore, provide an excellent opportunity for the educators and educationists to conceive and launch programs which initiate the learners into proper forms of behavior and attitudes which lead to decent productive and peaceful life in future.

6.1.3 The successive governments, secondary education could not attract attention in terms of efforts and investment. The perennial problem of illiteracy and the legacy of backwardness in the field of science and technology has forced the governments to assume greater priority to these two areas. Now, we have reached a stage, where the number of universities in public and private sectors have risen to 33 and the number of primary schools has crossed the mark of 150,000. It is, therefore, most appropriate to address the problems of secondary education seriously. With increased emphasis on quality of primary education and renewed efforts to check staggering dropout rate at primary level, the secondary level of education now needs to be prepared for comparatively heavier influx of aspirants to this level.

6.1.4 Compared to primary and elementary education, the base of secondary education is very narrow. The female section has to bear the major brunt of the narrowness. The problem is quite complex and need not be taken in a simplistic manner. Due to lack of planning in identifying the schools, the areas of highest concentration are overlooked. On the other hand, there are vast tracts of population which are not covered by adequate facilities. Expansion of schools in an unplanned manner, therefore, needs to be discouraged. We need to proceed very cautiously and in a planned manner.

6.1.5 The number of science and mathematics teachers' at the secondary level is very crucial and needs to be considered very seriously. There appears to be a strange

contradiction in this context. It could be usual to find a school, where there are no vacant posts, but science and mathematics teachers are short in supply. It arises out of the present practice of designating the posts in secondary schools. The budget books and all the official documents in all the provinces give the nomenclature to the posts as Trained Graduate Teachers, with different forms and usages. As a consequence, the posts are filled up with regard to their distribution in terms of subject specialization. The political and other pressures also make use of this discrepancy in rules.

6.1.6 The second fact of this problem relates to the availability of science graduates in teaching profession. Science graduates tend to seek employment in other technical areas, if possible and join teaching as their last resort. The ratio of science students at degree and master levels is also not encouraging. The female class in this area faces most of the disadvantages. Even in townships and cities, the female secondary schools do not have teachers in science and mathematics.

6.1.7 The education policy (1979) introduced 3-tier system of education. Under this system all the schools were to be upgraded to higher secondary schools having classes XI-XII and middle sections of high schools were to be linked with primary schools. This system has had limited success. On the other hand, it has given rise to a number of problems. In Punjab, where this bifurcation seems to have been completed by appointing DEO's, Directors and DPI's separately, important academic and administrative problems still persist. The middle classes (VI-VIII) in a large majority of schools still continue to be the part of high schools and up gradation of schools to higher secondary schools could not take place at the expected level. The other provinces are also facing similar problems. In Balochistan, for example, only one secondary school was upgraded as higher secondary school, but it had finally to be downgraded.

6.1.8 It is expected that the students should leave secondary education stage and be able to speak and write Urdu or English fluently along with good communicative skills. So, the contents of the curriculum should consist of the components of language, basic science, social sciences and one of the vocational subjects relating to agriculture, industry, business, computer, etc. Vocational component must have vast variety of skill courses/trades to be offered according to the need and convenience of the area where the school is situated. The level of the skills should be such that each student is competent enough for self-employment or employment in public or private sector. The skills should be linked with the present and future manpower needs of Pakistan's economy so as to promote chances for the employment of the students. It may be emphasized that agriculture is the single largest sector contributing to Pakistan's economy and employment sector. This discipline calls for its due consideration.

6.1.9 Introduction of technical and vocational component at the secondary level has remained a very controversial issue during the last 50 years. During the sixties, technical schools with different nomenclature were established with limited seats in

selected areas of the country. During seventies, the concept of agro-technical education was introduced and technical/vocational subjects were introduced as elective component at class IX-X level. The objective was to produce young boys and girls trained as semi-skilled workers, who would not be looking for white collar jobs. Unfortunately, all these initiatives could not gain popularity. There is no evidence available to prove that the objectives of these programs were met completely or even partially.

6.1.10 Theoretically, the demand for vocational education still persists. With the passage of time, the concept of vocational education has undergone some changes. It is not strictly understood in the sense of a definite vocation or profession. It is now being interpreted as a skill which prepares a student to respond to the call of practical life, if one chooses to work after secondary level of education. Keeping in view our own experience and that of other countries, we need to readjust our strategy in this area.

6.1.11 The quality of schooling is linked with the qualifications of teacher, curriculum, educational materials, teaching methodologies, equipment and physical facilities. It is well understood that the real impact of these factors on quality of education can be determined through a valid and reliable examination system. The performance measure of the students and teachers is based on their examinations results only. It is, therefore, necessary to reform the examination in such a way that they measure the achievement of the whole range of educational objectives. There would be need to train teachers in test construction and evaluation.

6.1.12 Teachers at intermediate level are subject specialists. Teachers and lecturers in this category are expected to have done their undergraduate work in the subject they teach. The same is not necessarily true of teachers for grade 9 and 10, which means that students studying mathematics, science subjects (chemistry, biology and physics) and English are often taught by the teachers with no special training in these subjects. Furthermore, teachers have a few opportunities to identify professionally with their specialties and to interact with their peers.

6.1.13 Training of high school teachers takes place in teacher training institutions but formal training is not required in order to sit for the B.Ed examination. Private candidates may also sit for the M.Ed examination. The formal programs for these degrees are one year each but actual classroom hours are estimated to cover about six months. Both the B.Ed and M.Ed. programs are criticized for putting too much emphasis on the theoretical rather than the practical aspects of pedagogy. Even when teacher training programs attempt to modernize their curriculum, the teachers who graduate, are unlikely to be able to implement changes in the traditional organization and methods in the high schools. Though reforms in teacher training are urgent yet it would not succeed without concomitant reforms in the other aspects of schooling.

6.1.14 Textbooks for schools are inadequate in many respect. The problem appears to have several causes. Firstly, the government control on cost, resulting in very low

production quality. Second, there are no incentives in the system for Textbook Boards to produce good quality books since they have a complete monopoly. Thirdly the textbook writing skill is rare and needs to be explored and further developed among the writers through training courses.

6.1.15 Introducing competition into the production of school textbooks in Pakistan will be quite complicated, because of the power the Textbook Boards have acquired, both through legislation and custom. At present, the system for distributing books is tied to the system for publishing them. For example, in Punjab, publishing firms that print the books, work together to establish each year, a non-overlapping set of temporary warehouses, that among them, cover the province. If the system were suddenly opened up, the distribution system would collapse and the result would likely to be a chaos. Therefore, change would have to be introduced slowly, and with full understanding of all the aspects of textbook provision.

6.1.16 Learning programs designed to meet the needs of growth and development, in Pakistan, in the future will require good quality textbooks. The type of learning needed to meet the future needs will also depend on the availability of library and reference books, consumable materials, and classroom teaching aids such as maps, models, and audio-visual materials. These are, at present, woefully absent in almost all the schools offering secondary and intermediate education. More and better learning materials will be an essential ingredient in improving the quality of education at these stages.

6.1.17 All the aspects of physical facilities, classrooms, laboratories, libraries, furniture and equipment are better provided for at higher stages of education. Colleges are better equipped than schools. Nevertheless, deficiencies are everywhere, and in some schools the facilities are barely adequate. Desk space is in short supply and often students do not have a proper surface for writing. Many schools do not have all the required equipment and the consumable items missing to conduct laboratory experiments. Library facilities are often inadequate, or almost absent. More of the facilities used by secondary and intermediate students have playgrounds, potable water, electricity, gas and boundary walls than those used by lower stages but often these basic amenities are non-existent. On the whole, lack of well-designed and well-equipped classrooms and laboratories hinder the proper delivery of the level of education appropriate to secondary and intermediary stages.

6.1.18 The profile of secondary education is reviewed briefly the demand of the present time leads to the following broad conceptual framework, that needs to be kept in view, for launching the program of reforms:

i. Proper development of the personality of student at this stage is of critical importance.

ii. Adequate preparation to enter the world of work as well as pursuit of higher education.

iii. Greater access to secondary education specially for the female population, meeting the requirements of students from elementary education.

iv. Improved quality of teachers both in terms of academic and professional accomplishment. This will also imply supply of improved teaching-learning material and improved method of training.

v. Creating a balance between science and humanities teachers, especially in female institutions by amending the recruitment rules and providing other incentives, wherever necessary.

vi. Removing discrepancies existing in present secondary and higher secondary schools in terms of staff and budget.

vii. Keeping in view our own past experiences and that of other countries, the whole question of integrating technical and vocational education with secondary education needs to be re-examined. The new trends emerging in the world need to be taken seriously.

6.2 Objectives

6.2.1 To prepare the students for the world of work, as well as pursuit of professional and specialized education.

6.2.2 To develop the personality of students as enlightened citizens of an Islamic state and peace loving citizens of the world at large.

6.2.3 To ensure that all boys and girls, who are desirous of entering secondary education are not deprived of their basic right because of non-availability of the schools.

6.2.4 To design a system of recruitment, training and selection of teachers in such a way that well-qualified and trained teachers are available for all subject offered at secondary level.

6.2.5 To prepare and make available such teaching-learning material which make learning rewarding and attractive.

6.2.6 To introduce a system of evaluation which emphasizes learning of concepts and discourages rote memorization.

6.2.7 To remove ambiguities and contradictions in the operation of 3-tier system of education and design rules, regulations and practices which ensure smooth functioning of the system.

6.2.8 To adopt a balanced approach towards integration of technical/vocational education and evolve a system, which is cost-effective and practicable.

6.3 Policy Provisions

6.3.1 Setting up one model secondary school initially at each district level.

6.3.2 Introduction of a definite vocation or a career at secondary level.

6.3.3 Revision of curriculum for secondary and higher secondary levels will be initiated.

6.3.4 Multiple textbooks shall be introduced at secondary school level.

6.3.5 The present rigidly compartmentalized scheme of studies at the Secondary School Certificate (SSC)/Higher Secondary School Certificate (HSSC) level will be replaced by a flexible system where a student would be free to choose any subject from a comprehensive list of subjects required.

6.3.6 Appointment in the Examination Boards should be on contractual and merit basis and the efficiency of the Boards shall be enhanced by introducing the improved system of terminal examinations.

6.3.7 A comprehensive in-service and pre-service teacher training program shall be launched in the area of assessment and evaluation for the improvement of public examination.

6.3.8 Project method of teaching shall be initiated at the secondary level of education by emphasizing learning by doing.

6.3.9 The Education Service Commission will be established for the recruitment of teachers.

6.3.10 Private and foreign investment shall be explored in the field of education and framework of incentives/encouragement to such entrepreneurs shall be provided.

6.3.11 Salary structure of the teachers shall be based on qualifications.

6.3.12 Education Card shall be provided to the needy students.

6.3.13 Guidance centres shall be established on the pattern and in collaboration with such centres in the universities to provide guidance and counselling services.

6.4 Physical Targets

6.4.1 The present participation rate at secondary level is 32% which will be raised to 48% by providing new teachers and increasing the number of schools as given in the following table:

	Bench Mark Target	
	1996-97	2001-2002
Participation rate at the secondary level	31%	48%
•Participation rate at the higher secondary level	11%	13%
•Number of secondary schools	11,000	18,000
•Number of secondary schools teachers	160,000	216,000

6.5 Implementation Strategy

6.5.1 General

i. The country has gone through an era of unplanned growth of schools. Due to political and other pressures, there are areas, where the schools are not properly utilized. To overcome this problem, the proposed District Education Authority will be assigned complete authority for location of new schools. The District Education Office will prepare list of their annual demands. The authority will develop contact with the communities and establish feasibility for the school. The communities demanding the schools will have to contribute land and labor for construction of school. The Government will provide funds on the basis of the contributions made by the local communities. The District Education Authority will be given powers to levy taxes or raise funds through donations for meeting day to day running expenditure of the schools.

ii. In order to reduce burden on the Government and to utilize non-conventional resources, the work of Education Foundation will be regulated through District Education Authorities. The private sector enterprise will not be required to submit the proposals to the headquarters of the Foundation. The Authority will initially examine the

proposals and submit complete case to the Foundation. Suitable legislation will be carried out to allow the process to function smoothly.

iii. Access to quality education is the basic right of every citizen. The far-flung areas of the country are deprived of opportunities to get better education for their children. In order to make it possible, the policy proposes to provide one model school at each district headquarter. On making initial investigations, some of the provincial governments showed reservations on the feasibility of the proposal. The concept of model school is based on equitable availability of educational opportunity. It cannot, therefore, be dropped altogether. The project will, therefore, be pilot tested, before it is finally launched. Based upon the agreement of the provincial government, 25% of the districts will be carefully selected, in consultation with the District Education Authorities to open these schools. The Authorities will monitor the functioning and utility of these schools. The program of expansion will be undertaken after measuring success of the pilot schools.

iv. It is not possible to provide guidance and counselling service in each secondary school. The government has already established National Education Testing Service (NETS). The first important step in this direction would be to make the people aware of the utility of the service. The NETS will immediately on the enunciation of the policy be assigned the task of preparing aptitude tests. These tests, with detailed instructions, will be made available to the Provincial Departments of Education for administration. The provincial government will administer these tests, wherever required through departments of psychology in the universities. In case the demand for the service increases, NETS will be directed to examine the possibility of opening its provincial offices.

6.5.2 Curriculum and Learning Materials

i. Curriculum at secondary stage will be based on two principles. First, it will provide a compulsory core of subjects to give every pupil the knowledge useful for a developing society. Secondly, it will include additional subjects and training to prepare the student for a definite career. The general and additional subjects will include awareness of problems like drugs, aids and environment.

ii. Curricula for secondary stage (IX-X) shall be revised with a view to stimulate problem-solving and independent thinking and in the light of other objectives outlined above. Experts from private sector shall also be associated with the process.

iii. Supplementary teaching/reading and other educational classroom materials shall be prepared based on the relevance of various concepts to life situations.

iv. The Provincial Textbook Boards enjoy complete monopoly over production and distribution of textbooks. The textbooks are written in a very traditional manner. Due to absence of a healthy competition, the Boards have not considered the possibility of introducing innovation in their production. It is time to give new orientation to the whole process. In the first instance the entire style of writing textbooks will be transformed. In order to perform that operation effectively, the Ministry of Education will design models for evaluation of textbooks in selected discipline at secondary level and conduct a model trial. The tried out textbooks will then be handed over to the private publishers and the Provincial Textbook Boards for designing their textbooks accordingly.

v. The concept of competitive textbooks in science and English will be gradually introduced, initially in science and English at the secondary level. In order to control prices and quality, the Federal and Provincial governments will continue to exercise their authority for review and approval. The provincial Textbook Boards or other agencies will initially receive the manuscript and undertake initial exercise for approval. They will also negotiate and finalize the extent of quality and pricing. The approved textbooks will then be supplied to the Ministry of Education. The Ministry of Education will select at least three best textbooks in each discipline. These books will become the recommended books for province or the entire country depending upon the nature of books. A detailed mechanism will be worked out, enabling choice. The examination will not be based on a single textbook, as they are today. The paper-setters will be free to choose their questions out of any one of the approved textbooks.

vi. There is a general demand for integrating technical education into general education. Our experiments in this area have not yielded any commendable results. The policy, therefore, proposes to take initiative in this area, with great caution. In proposed model schools, a limited number of technologies, most prevalent in the country and the world will be introduced. The expansion of the project will depend upon the public response. The courses for matric technical will be designed in such a way that the students can seek admission to higher education without any hindrance.

6.5.3 Examinations

i. Assessment items and question banks in school subjects for classes IX-XII will be developed by the end of the year 1999 for monitoring the teaching-learning process and achievement of the child. This will ensure uniform quality and standard.

ii. Autonomy will be given to the Examination Boards and Research and Development (R&D) Cells will be established in each Board to improve the system.

iii. Mechanism shall be developed to integrate internal and external assessment. Extensive in-service training programs for teachers shall be conducted in assessment techniques. Internal assessment shall be properly moderated. e.g., by the Boards. Moderated marks/grades for internal assessment shall be reported separately either on the certificate or as a part of a composite assessment.

iv. Gradual resort to improved testing instruments for classes IX and X and XI & XII to obviate and minimize unfair means. For this purpose the present structure of examination papers will be reviewed. The share of standardized test items will be gradually increased. The present system of objective questions, which are not objective in any sense, shall be gradually discontinued and replaced by a more scientific method.

v. A uniform schedule, for holding the Board examinations and announcing the results and admissions etc. shall be adapted.

6.5.4 Teachers

i. B.S.Ed. (Bachelor of Science Education) and B.A.Ed. (Bachelor of Arts Education) programs shall be implemented throughout the country parallel to the B.Ed program.

ii. Due to problem in designation of posts in the provincial budgets, availability of science and mathematics teachers remains an issue. The provincial governments will be required to undertake survey of secondary and higher secondary schools in areas of their jurisdiction, to determine the number of science and mathematics' teachers on the basis of operational school time-tables. The budget book from the year 2000 will reflect separate posts for science and mathematics teachers. The recruitment will be made accordingly.

iii. Anomalies existing between teachers directly recruited by the Public Service Commission with master degrees and the promotees of the educational institution with bachelor degrees will be resolved by the provincial governments.

iv. The new concept of cluster/center school shall be introduced and strengthened with an objective to impart in-service training to the teachers of the respective area as well as monitoring, evaluation and research.

v. An education code of ethics shall be developed and strictly enforced through legislation.

vi. The role of National Education Testing Service (NETS), shall be expanded for entire spectrum of education in a phased manner.

7

CHAPTER

TEACHER EDUCATION AND TRAINING OF MANAGERS

7. TEACHER EDUCATION AND TRAINING OF MANAGERS

7.1 Conceptual Framework

7.1.1 The quality of education is directly related to the quality of instruction in the classrooms. Teacher is considered the most crucial factor in implementing all educational reforms at the grass root level. It is a fact that the academic qualifications, knowledge of subject matter, competency and skills of teaching and the commitment of teacher have effective impact on teaching learning. Recognizing the deteriorating quality of education at various levels, efforts need to be intensified to accord adequate priority to the effectiveness of teacher education programs in the country. With our recent focus on ensuring massive access to "Education for All", the teacher education system has quantitatively expanded to keep a reasonable equilibrium in the demand and supply situation. On the contrary, the qualitative dimension of teacher education programs has received only marginal attention resulting in mass production of teachers with shallow understanding of both the content and methodology of education.

7.1.2 Many factors are responsible for shaping the quality of teacher education in the country. These factors range from ideological and socio-economic needs to the existing structure of education system as well as ill-defined theories and practices of teaching and learning. The population pressure obviously remains a prime impetus for the rapid expansion of education in the years to come. The teacher education program, being an integral part of the education system, has also expanded and will expand further for catering to the fast emerging needs of the country. Due care, however, needs to be taken that the essential qualitative imperatives of teacher education are also reckoned while meeting the pressures of demand on the system. The quality concerns of teacher education relate to policy formulation and planning, development and management of teacher education programs, provision of adequate infrastructure to training institutions, pre-service and continuous in-service education of teacher educators, regular enrichment of curriculum content, methods, evaluation techniques, teaching aids and other teacher related resources.

7.1.3 The existing teacher education program is considered not being adequately responsive to the demands for quality education in the school system. There is a wide range of issues and concerns being expressed about teacher education in Pakistan. To improve the existing situation in the field of teacher education, development of any strategy should give due consideration to these issues and concerns. Some of the major issues and concerns emphasized by the experts are indicated as under:

i. The profession of teaching is usually the last choice for the young men and women. The teachers are, therefore, said to be neither committed nor

motivated to teaching. This is more true in the case of male teachers than female teachers.

ii. The teacher training programs have an imbalance among the courses pertaining to academic knowledge of the subject content of school curriculum, teaching methods, teaching practices and curricular activities. This is because of the short duration of most of the existing teacher education programs.

iii. The appointment procedure for the teachers usually disregards merit due to political interference and other malpractice prevailing in the society.

iv. The teacher training institutions are facing budgetary and financial constraints and are not adequately equipped to meet the requirements of a dynamic system of quality teacher education.

v. There is no effective relationship between the demand and supply of teachers at any level of education in Pakistan. Teacher training is carried out without a viable policy and planning framework resulting in imbalances between the demand and supply situation.

vi. The quality of textbooks in teacher education is poor. The learning materials neither relate to real educational environment nor inspire and motivate the prospective teachers for further studies. There is no mechanism to make teacher's guides and supplementary materials available for working teachers.

vii. There is no standardized procedure for the appointment of teachers in teacher training institutions. In the existing system, any person belonging to school or college cadre can be shifted to a teacher education institution.

viii. The teacher training institutions face acute shortage of facilities-buildings, equipment, furniture, teaching aids and educational technology, library books and other reading materials. The teacher educators are not provided with necessary support services. These institutions are also not supervised in an effective manner.

ix. In-service training programs for teacher educators are almost non-existent. There is no institutionalized arrangement for providing regular training to teachers and teacher educators. Sporadic training opportunities, if any, lack in quality.

x. The examination system is highly defective. Essentially external in nature, it deprives of creativity and leadership qualities among students.

xi. Teacher absenteeism, defective management, and lack of supervision and accountability practices are some of the major issues which need to be appropriately addressed in the teacher education programs.

7.1.4 At present, the following institutions offer various training programs.

Programs and Institutions	Punjab	Sindh	NWFP	Balochistan	Federal	Total
PTC/CT (G.C.E.Ts)	34	24	18	10	04	90
B.Ed/B.S.Ed (Colleges of Education)	08	04	02	01	01	16
M.Ed/M.A (Ed) IERs/Univ. Deptts. of Education	04	02	02	01	--	09
Extension/ Staff Development (In-service Education) P.I.T.Es	1	1	1	1	--	4
P.I.T.Es	1	1	1	1	--	4

7.1.5 Since independence, there has been a substantial expansion in teacher education institutions. At present, there are 90 elementary colleges and 30 high schools which offer teacher training programs for PTC (Primary Teaching Certificate) and CT (Certificate in Teaching) to teachers. Institutions which prepare secondary school teachers are known as Colleges of Education. There are 11 Colleges of Education, 4 Institutes of Education and Research and 2 departments of education of universities which offer programs of secondary school teacher education leading to a Bachelor's degree in Education (B.Ed). The Allama Iqbal Open University (AIOU) is also contributing in the training of teachers by means of distance learning. It offers PTC, CT, B.Ed and M.Ed programs of teacher education. The description of various training programs is given below:

Training Program	Qualification for Admission	Duration of Training in Academic Years	Classes to Teach
P.T.C	Matriculation	1	I - V
C.T	Intermediate	1	I - VIII
B.S.Ed. (12 + 3)	Intermediate	3	VI - X
B.Ed. (14 + 1)	B.A/B.Sc	1	VI - X
M.Ed	B.Ed	1	VI - XII + Students Teachers of PTC, CT and B.Ed + Supervision
M.A Edu.	B.A/B.Sc	2	VI - XII + Students Teachers PTC, CT and B.Ed + Supervision

7.1.6 The annual training capacity of all the formal training institutions is about 30,000. In almost all the institutions, there is a pressing demand for admission in teacher training programs. In most of the cases, there are more applicants than places available. The total enrolment of AIOU is about 10,000 per annum of which about 7,000 complete various courses every year. The P.T.C, C.T and B.Ed programs of AIOU are offered in alternative years. The staff of the teacher training institutions belong to education service. There is no special cadre of teacher educators. Any serving teacher or lecturer with a Master degree qualification, with or without professional qualifications, can be appointed as a teacher educator although preference is given to those who hold a Master degree in Education. The pre-service teacher training is an essential prerequisite for teaching in primary, middle and secondary schools. However, no pre-service training is required for teaching at higher secondary and degree levels.

7.1.7 Keeping in view the existing capacity of our teacher training institutions, which is around 40,000 including AIOU, one may safely conclude that the existing institutions are sufficient to meet the quantitative requirements of teacher training in the country. It is estimated that around 65,000 teachers with PTC, CT and B.Ed, M.A (Ed) qualifications are unemployed because of imposition of continuous ban on new recruitment during the last six years.

7.2 Objectives

7.2.1 To create a matching relationship between demand and supply of teachers.

7.2.2 To increase the effectiveness of the system by institutionalizing in-service training of teachers, teacher trainers and educational administrators.

7.2.3 To upgrade the quality of pre-service teacher training programs by introducing parallel programs of longer duration at post-secondary and post-degree levels.

7.2.4 To make the teaching profession attractive for the young talented graduates, by institutionalizing a package of incentives.

7.2.5 To develop a viable framework for policy planning and development of teacher education programs, both in-service and pre-service.

7.2.6 To provide for management training of educational administrators at various levels.

7.3 Physical Targets

The requirements of new teachers during policy implementation period have been given in different chapters.

7.4 Policy Provisions

7.4.1 The annual requirement of teachers in each province will be worked out on short and long-term basis. The teacher training institutions will be required to restrict their admissions accordingly.

7.4.2 For training educational administrators during coming years, departments of educational administration and management offering M.Ed and B.Ed degree will be opened. Academy of Educational Planning and Management will develop specialized training programs for in-service educational administrators.

7.4.3 Effective measures will be taken to strengthen in-service institutions for providing regular and quality in-service training to the existing corps of educational administrators.

7.4.4 Both formal and informal means, will be used to provide increased opportunities of in-service training to the working teachers, preferably at least once in five years.

7.4.5 Special arrangements will be made for the training of teachers educators by using National Institute of Teachers Education and its affiliated centers.

7.4.6 The curriculum and methods of instruction in teacher training institutions will be reviewed and revised for bringing them in line with the requirements of modern trends in this field.

7.4.7 On the pattern of B.S.Ed, being offered in only two institutions in Punjab, FA/F.S.Ed and B.A. Ed will be introduced.

7.4.8 Special incentives will be provided to attract and retain talented students into the teaching profession.

7.4.9 Special incentive package will be provided to rural females to join the teaching profession.

7.4.10 A new stream of vocational and technical training will be introduced in pre-service teacher training institutions, initially at post-degree level.

7.4.11 A new cadre of teacher educators will be created.

7.4.12 In order to make the integration of secondary and higher secondary level possible pre-service training will be made compulsory for those teaching at the higher secondary level.

7.4.13 Academy of Higher Education in the University Grants Commission will be strengthened to provide in-service training programs to the degree and post-degree teachers.

7.5 Implementation Strategies

7.5.1 There has been a constant observation that the duration of primary school teaching certificate is far below the norm of other developing countries in the world. Generally, the programs for Primary School Teaching Certificates range from 12 to 16 years of both general education and teacher training programs. The norm is, therefore, around 14 years of education in most of the countries in the world. In order to strengthen the primary level teacher training programs, it is proposed to start a Diploma in education program for matriculates with three years duration. Through this diploma, the teacher will study up to the Higher Secondary School Level as well as obtain pedagogical skills for teaching at the Primary level. This Diploma will provide the respective teachers to receive integrated training both in the school subjects as well as pedagogical skills and enable them to pursue either general studies up to B.A, B.Sc and M.Sc level or continue to serve the teaching profession.

7.5.2 At present, a few institutions, in the country, offer an integrated program at B.Sc + B.Ed level known as B.S.Ed program. These programs have proved successful as they attract students at F.Sc level and induct them in the teaching profession by providing them 3- year integrated training with the benefit of two degrees. It enables the student to receive the qualifications of both the B.Sc and B.Ed levels and enables them to pursue their higher studies at M.Sc and M.Ed levels. This open-ended facility to pursue either of the two programs has attracted a vast number of talented students to the teaching profession. It is proposed to expand this facility horizontally to those students who want to pursue general education as well as obtain a B.Ed degree through an integrated B.A + B.Ed program at the colleges of education. The students of these programs will have the opportunity to continue their studies at M.A, M.Sc or M.Ed levels. These teachers will be equipped with academic background of school subjects as well as trained in pedagogical skills to teach students from grades 6 to 10. All colleges of education will offer this combined degree program to meet the emerging needs of quality teacher education at the secondary level.

7.5.3 To impart management capability, the M.Ed degree at the university level will be improved/strengthened to produce a corps of trained educational administrators and supervisors who can become headmasters/headmistresses of middle and high schools as well as DEOs, SDEOs and ADEOs to provide leadership in the field of education. Besides, the university departments of education and IERs, leading colleges of education in the country will also be strengthened to offer this degree so as to cater to the expanding needs of the country.

7.5.4 Good governance in educational institutions will be achieved by imparting intensive training in management and supervision through Provincial Institutes of Teacher Education (PITES) to all headmasters/headmistresses and personnel of supervisory cadres.

7.5.5 At national level, National Institute of Teacher Education (NITE) will be set up to improve the capability of academic staff in teacher training institutions. About 300 teacher educators will be enabled to improve their professional qualifications through this Institute every year.

7.5.6 The curriculum of PTC, CT, B.Ed and M.Ed levels will be improved so as to make these programs learner-centered and provide opportunities to the prospective teachers to receive necessary training in pedagogical skills involving creativity, problems-solving, project method and use of other innovative approaches.

7.5.7 The academic calendar of these institutions will be extended by curtailing spring, winter and summer vacations.

7.5.8 The programs will be based on semester system.

7.5.9 Apart from sporadic non-formal education training programs run by NGO's, an extensive nation-wide orientation program for providing basic skills of teaching through non-formal education methods under the umbrella of Allama Iqbal Open University shall be launched.

7.5.10 In order to attract talented students to the teaching profession, a stipend scheme will be started for studies at the intermediate and degree levels. These students will be contracted to join the teaching profession on the completion of their studies. Those receiving higher qualifications during their service will be given adequate incentives of advance increments, as well as, rapid promotion within their cadres so as to retain them in the profession.

7.5.11 The Academy of Educational Planning and Management (AEPAM), being the prime training institute at national level, for educating personnel, administrators, supervisors and planners. Its training capacity and resources shall be strengthened and long-term training programs shall be launched for school administrators.

7.5.12 Teacher Foundations shall be established in all the provinces. These will provide financial assistance to the spouse of the deceased teachers and scholarships to their talented children for pursuing higher education. In addition, children of teachers shall be exempted from payment of tuition fee in the public sector educational institutions.

7.5.13 There is sufficient evidence to substantiate the fact that female teachers are more effective than male teachers at the primary level. In order to encourage more female

teachers to join the primary institutions, three-pronged measures will be adopted, viz: (a) 70% newly established primary schools will be staffed by female teachers. These schools will provide education to both boys and girls; (b) staggered pre-service training courses during summer vacation will be launched at PTC, CT levels through which untrained female teachers will be provided pre-service training during summer vacation; and (c) there will be no upper age restriction for female teachers to join the teaching profession.

7.5.14 In order to universalize primary education in the country, and to extend education facilities up to the elementary level, it is necessary to provide suitable number of trained teachers to disadvantaged institutions. This may be done through various efforts by (a) providing stipend to female students at school and college levels and contracting them to serve specific institutions for a period of 3-5 year, (b) providing incentives in terms of special pay and allowances for working in far-flung rural institutions, (c) extending residential facilities and daily commuter services to these institutions. Besides these measures, retired personnel may also be engaged to teach in these institutions until regular staff is attracted to serve these institutions through various schemes of incentives. (d) opening day care centers near the schools for lady teacher's siblings.

7.5.15 The policy provides an offering for a separate stream of Matric (Technical) in secondary schools of the country. Initially, the institutions having lab and a qualified teacher will be allowed to offer this facility. In the meantime, the scheme of studies for B.Ed programs will be revised to offer B.Ed (Technical) to the trainees. The existing programs of M.Ed (Technical) will be expanded for ensuring supply of trained technical teachers. A rational planning system will be introduced. The offering of Matric (Tech) in high schools will correspond precisely to the number of trained teachers that become available every year. Thus surety of job will attract talented young graduates to this field.

7.5.16 The policy provides for opening of vocational schools at each district headquarters. These schools will provide training to both genders. Arrangements will have to be made to provide teachers to these institutions. Experience indicate that it will not be appropriate to train a separate cadre of teachers in this field, and make arrangements for their pre-service training. Skilled and or qualified manpower available in the field will be used for the teaching assignments. If feasibility, the teachers so recruited will be provided short-term training in vocational institutes, already working in public or private sector.

8

CHAPTER

TECHNICAL AND VOCATIONAL EDUCATION

8. TECHNICAL AND VOCATIONAL EDUCATION

8.1 Conceptual Framework

8.1.1 Sustained socio-economic development is not possible by mere capital investment unless it is reinforced with proper supply of adequately trained scientific and technical manpower. Rapid economic growth demands a mixture of skilled workers; tradesmen; technicians; technologists; engineers; research and development scientists; trained in areas linked with national development requirements and needs of the industry. The needs of the society; level of skill and technology applied in their system; socio-economic conditions, level and scope of industrialization; availability and extent of use/exploration of natural resources and many other such factors that influence the composition of work force. A well-planned education system including technical and vocational education (TVE) is, therefore, essential for economic development of the country.

8.1.2 Unfortunately, there has been a greater increase in facilities for general education in the country over the years. The number of graduates without technical qualifications looking for employment in the white collar sectors, has gone beyond the absorption capacity. As a result, there is rampant unemployment among the educated youth. The prevailing law and order situation can at least partly be attributed to this ever-swelling mass of unemployed frustrated educated youth. There is also, heavy dropout at various stages on the line which need to be catered for. Furthermore, there is undue pressure on higher education institutions simply for the reason that school-leavers are unable to get wage/self-employment for want of any employable skill. It requires a multi-pronged strategy to address this situation. While concerted efforts are being made to raise academic standards of education and arrest dropout, there is a dire need to relate education to the world of work and develop, among the students, awareness and interest for acquisition of skills in employable trades.

8.1.3 Keeping in view the cost-intensive nature of vocational education and the financial limitations, at least a modest beginning in this direction is inevitable. Opponents of vocationalization of school education quote the example of Agro-technical education scheme launched in seventies. The inability of this scheme to achieve desired objectives cannot be construed as failure of the concept. The Agro-tech scheme could not achieve the envisaged objectives/success for two reasons. Firstly, it was extended to schools more than planned and thus the requisite inputs could not be provided. Secondly, the non-examinable (by Boards) status of vocational subjects resulted in casual attitudes of the students, teachers as well as school administration towards these subjects.

8.1.4 The terms Technical and Vocational Education are sometimes used synonymously. However, in practice in Pakistani context, the term technical education

refers to post secondary courses of study and practical training aimed at preparation of technicians to work as middle level supervisory staff; whereas the vocational education refers to the lower level education and training for the preparation of semi-skilled & skilled workers in various trades. At present, a number of departments/agencies such as Education, Labor and Manpower, Industries, Social Welfare and Agriculture Departments are involved in TVE. The Federal Ministry of Education is basically responsible for policy planning, coordination of standards and curriculum development for post-secondary technical education provided in colleges of technology and polytechnic institutes under the education departments. Besides, a number of vocational institutes, particularly for females, are also being run by the provincial education departments. In addition to the training of engineering technicians, the education departments also administer commercial education institutions to train manpower for business sector and offices.

8.1.5 At present, the middle and basic-level-trained manpower comes from the following streams:

i. Polytechnic institutes and colleges of technology operating under the Federal Ministry of Education and provincial education departments.

ii. Commercial training institutes under the Ministry of Education and education departments.

iii. Vocational institutes under the education departments.

iv. Training centers operating under aegis of various departments e.g. Labour & Manpower, Social Welfare, Industries, Agriculture etc.

v. Apprenticeship training program administered by the Ministry of Labour & Manpower and Provincial Labour and Manpower Departments.

vi. Informal system of training – Ustad-Shagird system.

8.1.6 Starting from a very narrow base at the time of independence, there has been manifold increase in the number of TVE institutions. Yet, the TVE is confronted with a plethora of problems and a lot remains to be done to improve quality and access. Major issues and problems include:

i. Inadequate spatial coverage- currently, there are 21 divisions without a polytechnic for women, 65 districts without any polytechnic for boys, 329 tehsils without a vocational institute for boys and 277 tehsils without a vocational institute for girls.

ii. Inadequate financial resources and over-dependence on government funding.

iii. Lack of coordination between various departments involved in TVE.

iv. Lack of industry - institution liaison resulting in low external efficiency.

v. Lack of relevance of curriculum to job market requirements.

vi. Acute shortage of textual material. Private publishers are not attracted because of low clientele and economic viability. The imported books, besides being very expensive and posing language problem, do not cover the entire course content, and in most cases more than one book is needed.

vii. Inadequate and poorly trained faculties, poorly equipped and maintained workshops and inadequate administrative infrastructure resulting in low internal efficiency.

viii. Poor institutional capacity for planning and development of TVE and lack of relevant data. The present TVE is supply- oriented and has not kept pace with the needs of the labor market. The system of coordination between the Ministry of Education and other ministries/agencies of the government and the public and private sectors also needs to be improved to raise the efficiency in the use of resources and linkages between the provider and user of TVE. But the Ministry of Education at the federal level and the Directorates and Boards of Technical Education in the provinces lack personnel to undertake professional activities which they should perform.

8.1.7 The main strategy of the new policy initiative is qualitative improvement and quantitative expansion with emphasis on strengthening and consolidation of the existing technical and vocational education facilities. The policy aims at improving the quality of technical education in order to enhance employability of TVE graduates by moving from a static, supply-driven system to a demand-driven system, capable of reacting efficiently to labor market needs and opportunities. Besides, of course, a modest quantitative expansion along with the introduction of new technologies to meet the growing demand for technical manpower at the middle level has also been provided.

8.2 Objectives

8.2.1 To develop opportunities for technical and vocational education in the country for producing trained manpower, commensurate with the needs of industry and economic development goals.

8.2.2 To improve quality of technical education to enhance employability of TVE graduates by moving from a static, supply-based system to a demand-driven system.

8.2.3 To design the program of technical and vocational education in such a way that dual purpose of self-employment and availability of trained manpower for industry is served simultaneously.

8.2.4 To develop among the students technical skills and desirable work habits.

8.2.5 To establish an evaluation system which emphasizes relevant skills and project orientation.

8.2.6 To promote institution - industry linkages to enhance relevance of training to the requirements of the job market.

8.2.7 To impart employable skills to reduce unemployment among educated youth.

8.3 Policy Provisions

8.3.1 A National Council for Technical Education shall be established to regulate technical education and to coordinate efforts of various departments/organizations in this field.

8.3.2 Revision and updating of curricula shall be made a continuing activity to keep pace with changing needs of the job market and for accommodating the new developments. Development of competencies in work ethics, communication skills, safety and health measures, entrepreneurial skills etc. shall be reflected in the curricula.

8.3.3 Institution - industry linkage shall be strengthened to enhance the relevance of training and trainability of the candidate for the requirements of the job market.

8.3.4 Funding various institutions for purchase of raw materials for practical and repair and maintenance of equipment and machinery shall be need based.

8.3.5 An element of self-reliance shall be introduced to reduce burden on public exchequer. For this purpose, private sector participation in the promotion of technical and vocational education shall be encouraged.

8.3.6 Evaluation and accreditation system shall be improved.

8.3.7 In-service training shall be provided to improve quality of existing teachers and a pre-service teacher training program of B.Ed. (Technology) shall be introduced to provide trained instructors for polytechnics and vocational institutes.

8.3.8 New institutions shall be established to improve spatial coverage and access to TVE. Evening shifts shall be started in the existing institutions where demand exists.

8.3.9 Access to TVE shall be further increased through distance education and other non-formal modes.

8.3.10 Emerging technologies e.g. telecommunication, computer, electronics, automation, petroleum, garments, food preservation, printing and graphics, textile, mining and sugar technology etc. greatly in demand in the job market shall be introduced in the selected existing polytechnics.

8.3.11 Computer education will be made compulsory component of the curriculum of technical education and computer laboratories with related facilities shall be established in all the polytechnic institutes and colleges of technology.

8.3.12 Institutional capacity for planning and development for technical - vocational education shall be enhanced.

8.3.13 Continuing education programs based on modular approach shall be introduced in different institutions.

8.3.14 To overcome acute shortage of textual material, the prospective authors, selected from amongst senior teachers of TVE, will be motivated through financial incentives to develop teaching learning resource material.

8.3.15 Liberal in-service training facilities shall be provided to the TVE teachers to enhance the quality of instruction.

8.3.16 Opportunity for further education shall be provided to the graduates of polytechnic institutes/colleges of technology.

8.3.17 The programs of instruction in commercial training institutes shall be modernized and a diploma program in "Office Management and Commercial Practices" shall be introduced in selected commercial training institutes.

8.3.18 The base for technical and vocational education shall be broadened through introduction of a stream of Matric (Technical) on pilot basis and establishment of vocational high schools.

8.3.19 In order to provide conducive teaching - learning environment, laboratories and workshops shall be refurnished and modernized.

8.4 Physical Targets

Pakistan inherited a very narrow technical-vocational education base. Technical education as an independent stream started in mid-fifties with the establishment of two polytechnic institutes at Karachi and Rawalpindi. Over the last 40 years there has been manifold increase in the number of institutions. During 1996-97, there were 84 mono/polytechnic institutes and colleges of technology (including private sector institutions) offering a 3-year Diploma of Associate Engineer in over 20 technologies. The total enrolment in diploma courses is little over 42,000. Vocational education and training in various trades offers (one year certificate and two year Diploma) in vocational institutes. There are 194 vocational institutes with an enrolment of about 9500, operating under the Provincial Education Departments. Commerce education, to train manpower for business sector and offices, is provided in commercial training institutes which offer one year certificate in Commerce (C.Com.) and two-year Diploma in Commerce (D.Com.) programs. The number of commercial training institutes at present stands at 216 with total enrolment of about 22600. It is planned to increase the number of mono/polytechnic Institutes to 135, that of vocational institutes to 294 and commercial institutes to 266 over the next 5 years i.e. by 2002. The enrolment in these institutions is expected to increase to 62,000, 15,000 and 28,000 respectively.

8.5 Implementation Strategy

8.5.1 National Council for Technical Education shall be established as a statutory body through an Act of the Parliament. The Council would be a self-financing body except for initial seed money. The Council in collaboration with other concerned agencies, shall take measures to set standards of technician education; coordinate efforts of various departments/agencies involved in TVE; carry out need- assessment surveys and advise the Government on the future expansion and development of technical education. The council would also take care of the professional matters of technicians and technologists, including their registration.

8.5.2 The National and Provincial Education Foundations shall provide matching grants and/or soft-term loans to the private investors for establishment of TVE institution for which the said Foundation shall be adequately funded by the respective Governments. The private investment shall be further encouraged through other incentives such as provision of land on subsidized rates, concessional import tariff on training equipment and machinery, tax holidays etc. for which necessary administrative and legislative measures shall be taken. Private industries shall be encouraged, through similar incentives, to establish training centers in the industrial units. Foreign investment in technical-vocational education will be encouraged through provisions of incentives e.g. repatriation of profit and concessional import tariff on plant, machinery and equipment with no sales tax as per provisions of the Investment Policy, 1997.

8.5.3 National Technical Teachers' Training College (NTTTC) has been declared the competent authority under Federal Supervision of Curricula, Textbooks and Maintenance of Standards of Education Act 1976. The NTTTC in collaboration with the Boards of Technical Education, Provincial Research and Development Cells, proposed Council for Technical Education and experts from Commerce and Industry shall carry out revision/ updating of curriculum on continuing basis to keep pace with the changing job market requirements and scientific and technological advancement in the field. The curriculum and Instructional Material shall be revised accordingly.

8.5.4 Computer education will be made compulsory component of the curriculum of technical education. A component for the development of non-technical competencies e.g. work ethics, communication skills, entrepreneurial skills etc. shall be introduced in the curriculum.

8.5.5 In order to reduce dependence on government funding the following measures shall be taken:

i. Industrialists and philanthropists shall be encouraged to create endowments in the name of various TVE institutions through liberal tax exemptions on such donations.

ii. Polytechnic institutes and colleges of technology shall run customized training courses for industrial workers on charge to the concerned industry to generate revenues to supplement the government grants.

iii. Production units shall be established in selected institutions with dual purpose of providing training to the students and generating income for the institutions. Necessary amendments in the financial and administrative procedures shall be made for effective functioning of these units.

iv. The TVE institutions shall also run short-duration courses in demand in job market on self-financing basis.

v. The institutions shall also provide services to the community with dual purpose of fostering institution community relationship and to generate revenues for the institutions as well as for the needy students.

8.5.6 Boards of Technical Education shall be strengthened to undertake research and development for improvement of evaluation techniques and accreditation system. The Boards in collaboration with the Council for Technical Education shall set national standards to enhance quality and facilitate determination of equivalence between courses

offered by various agencies. Experts from commerce and industry shall also be involved in the evaluation process to build up confidence of the end-users.

8.5.7 To strengthen institution - industry linkage the following measures shall be adopted:

i. Management Committees with representation from local/relevant Industries and Chambers of Commerce & Industries shall be established in every institution.

ii. Participation and involvement of experts from commerce and industry in the process of curriculum development shall be ensured.

iii. Instructors shall be encouraged to have internship in the industry in the areas of their specialization as part of training by allowing them liberal leave on full pay or deputation for which necessary amendments in service rules shall be made.

iv. Experts from local/relevant commerce and industry shall be invited as visiting lecturers in polytechnics and colleges of technology.

v. The polytechnics & colleges of technology shall be encouraged to undertake research and development projects and consultancy work for the industry.

vi. Polytechnics and colleges of technology shall arrange customized courses for training of industrial workers.

vii. Steps will be taken to provide for practical training of students in the industry.

8.5.8 In order to increase access to TVE through distance education and other non-formal modes, Allama Iqbal Open University shall play a major role. The University has well- developed facilities and trained faculty and is running a number of such programs. These will be expanded further. The University will develop curricula and training materials for teachers and students. The University shall launch the programs through its system and also evaluate the output of this intervention.

8.5.9 In order to build up institutional capacity for realistic planning and development, the NTTTC and the Provincial Research and Development Cells shall be strengthened to establish Management Information System (MIS) for maintaining data base of existing TVE facilities and job market. They shall also conduct labor market surveys and tracer studies, develop career development programs for technical teachers and disseminate information on technical manpower status, to guide future expansion and

development of TVE. The provincial R&D Cells shall be linked with each other and with NTTTC at the Federal level for effective working. Capacity for policy planning, implementation, and monitoring and evaluation for TVE within the Ministry of Education shall also be increased.

8.5.10 One of the major problems in TVE is the low quality of teachers. Most of the TVE teachers do not get opportunities to update their knowledge. In-service training on regular basis is required. NTTTC shall organize in-service training for the TVE teachers with continual assessment for updating their knowledge. Besides, a 3-year pre-service technical teacher training program of B.Ed. (Technology) shall be introduced at the National Technical Teachers' Training College. Necessary spade work such as development of curricula and provision of physical inputs to launch the program from 1998/99 is underway. The entry requirement for the proposed program will be Diploma of Associate Engineer or F.Sc. Pre-engineering. The program will be based on modular approach with multiple entry points.

8.5.11 The graduates of colleges of technology/polytechnics shall be provided further opportunity for upward mobility. M.Tech. will be introduced so that B.Tech. graduates can further improve their qualifications.

8.5.12 The present graduates with Diploma in Commerce and Certificate in Commerce, being churned out from the commercial training institutes, are not equipped with the need of the present day office and business sector. At best these graduates are becoming office clerks with very little knowledge of modern office practices. The new Diploma program in "Office Management and Commercial Practices", shall be introduced to overcome the existing deficiencies. Students shall be trained in computer usage, operation of modern office equipment like fax machine, photostat machine, mini telephone exchange etc. They shall, also, be taught modern office management practices.

8.5.13 To expose students to the world of work and foster interest and develop an elementary level of skill in employable trades, a stream of Matric (Tech.) parallel to Science and Humanities Groups shall be introduced in 10%, 3% female, 7% male in secondary schools (classes IX-X) in a phased manner over a period of five years i.e. by the year 2002. One or two vocational subjects shall be introduced in each of these schools as per need of the area. Workshop buildings and some equipments are available in some schools as remnants of old schemes. Similarly, vocational teachers are also available in some schools. These facilities with some additional inputs shall be used to introduce the Matric-Tech scheme. The existing vocational teachers shall be retrained in NTTTC and Technical Teachers' Training Centers in the Provinces. In addition, the pass-outs of B.Ed. (Technology) program will also be available to work as technical teachers.

8.5.14 The scheme of studies shall be reviewed to accommodate the technical subjects without diluting the contents of the relevant science subjects, so that the students are not handicapped for further studies. In order to develop desired level of skill a part of summer vacation and period between secondary school examinations and declaration of results shall be utilized for extensive practical training in addition to regular practical during the year. The vocational courses shall be examinable by the Boards like other subjects.

8.5.15 A new stream of vocational high schools shall also be introduced and one such school for boys in every district and for females at divisional level shall be established in line with needs of the area. These schools would offer 2-3 vocational subjects relevant to the needs of the area. Private sector shall be encouraged to establish vocational institutions to reduce the burden on the government exchequer.

9

CHAPTER

HIGHER EDUCATION

9. HIGHER EDUCATION

9.1 Conceptual Framework

9.1.1 Higher education is today recognized as a capital investment and is of paramount importance for economic and social development of the country. Institutions of higher education have the main responsibility for equipping individuals with advanced knowledge and skills required for positions of responsibility in government, business, and other professions. Only highly educated manpower can handle advanced technology. Thus, without the participation of highly qualified manpower, the process of economic development is very difficult to be accelerated. It is, therefore, important that decision-makers must recognize that higher education is an important factor of development.

9.1.2 The rapid means of communication and digital revolution have opened wide vistas of the world, especially for higher education institutions. The rise of internationalization, globalization of economies, knowledge and culture, and the concept of lifelong learning give a distinctive character to higher education both in international and national contexts. Through its contribution to lifelong learning, competitiveness and the pursuit of excellence, higher education has to play a significant role in a society. Internationalization has put university education in the forefront of the world educational map. Our universities and institutions of higher education will have to meet international standards and produce graduates who can compete world-wide. Accordingly, higher education institutions must be responsive to the challenges of a rapidly changing and challenging new world; expectations of society and growing demands of the rising student population. This policy, therefore, looks forward to a new beginning to higher education in Pakistan.

9.1.3 The policy views higher education as a source of great potential for the socio-economic and cultural development of the country and believes that through quality higher education the nation can be transformed into a developed nation within the life time of a single generation. Factors such as the distinctive nature of higher education institutions; international mobility of students and teachers; accessibility of computer-based learning; pursuit of research and scholarship, globalization of economy and emerging challenges of the 21st century have a direct impact on the future development of higher education.

9.1.4 This policy stipulates the establishment of a system that will be able to:

i. preserve the Islamic values and the cultural identity of the nation;

ii. expand the access to quality higher education on merit and equitable basis irrespective of gender, region, class, religion or caste;

iii .produce highly qualified manpower for meeting the needs of the country for the 21st century. This manpower must be moral and humane;

iv. contribute to the advancement of knowledge and prosperity of the nation.

9.1.5 The underlying guiding principles for the policy would be the provision of resources and opportunities on the basis of equity, private-public partnership accompanied with development of quality, effectiveness, efficiency, academic freedom, institutional autonomy, public accountability, good governance and management.

9.1.6 Higher education in Pakistan is beset with problems of a gross nature and is in urgent need of reform in order to make it an effective tool of development. This chapter presents a brief overview and analysis of higher education scene in the context of a number of key issues before giving policy recommendations. The crucial issues are: access, to professional and college education, quality of education, faculty development, research, funding and discipline on the campus.

Access

9.1.7 Participation is related to availability of places, opportunities, qualified staff, admission policies, the cost and perceived benefits associated with entry to higher education. Most of the advanced countries have achieved a participation rate of 50% of the age-group 17-23. The student enrollment in universities in Pakistan has an exponential increase from 644 in 1947-48 to 101346 students in 1996. In spite of that less than 3% of the age-group (17-23) have access to higher education. More intensive enrollment is seen in professional education which has almost tripled. The growth in enrollment, however, has been much faster than the numerical increase in institutions. As a result, there is a limited access to higher education and many of the prospective students who are unable to get admission are forced to join unrecognized institutions or give up their pursuit of higher education.

9.1.8 If we are to realize the national objectives, then we will have to increase our enrolment percentage in the higher level of education. For that purpose, Pakistan will have to create more places in the higher education system for the rising student population. It is envisaged that a number of factors, such as, rising demographic trends, high rates of returns associated with higher academic degrees, cheapness of higher education in public universities, absence of entry tests, attraction of government jobs for security and prestige and the expanding size of the middle class will continue to put pressures for more places in higher education institutions.

9.1.9 Given the present intake of tertiary level institutions, the demand of student places would be exponentially high. In order to develop the country to a respectable level, it is envisaged that the participation rate would need to be enhanced to at least 7% of the age-group. This means that a population of 1.7 million would need to be provided higher

education by 2010. If we are to realize the objectives of 'Vision 2010', then we will have to increase our enrolment percentage in the higher level of education. The likely demographic scenario by 2010 would be as given below:

Table Demographic projections (for 17-23 years)

Year	Total in millions for the age group (17-23 years)	Males	Females	Total population in millions	17-23 years population as % of total
1995	15.610	8.113	7.498	130	12.1%
1997	17.170	8.875	8.295	137	12.5%
2000	19.194	9.822	9.372	149	13.0%
2005	22.191	11.226	10.965	168	13.3%
2010	25.377	12.919	12.457	187	13.6%

9.1.10 By the year 2010, the nation would have approximately 25 million youths in age group 17-23. If we take 7 per cent of that population to go for higher education, then the student intake would be estimated at 1.7 million. Such a large number would require a variety of institutions, planning for which should begin now. We visualize a ratio of 50:50 for Arts and Science subjects by the year 2010.

Professional Education

9.1.11 For professional education in Pakistan to make any impact on the national development effort, it has become necessary that it be directed intelligently and purposefully towards producing the required manpower. For this purpose, the professional institutions must possess a clear idea about the problems of society and know the size, objectives and directions of the national development endeavour. Serious concern has been shown by the government and society alike on the quality of engineers, agriculturists, lawyers, doctors etc. being produced by professional institutions.

Agriculture Education

9.1.12 The degree level training in agriculture education is imparted by the four agricultural universities and five colleges/faculties established as affiliated or constituent units of general universities. In all the institutions, F.Sc (pre-medical) is the general requirement for admission to first degree course except for the B.Sc (Agriculture Engineering)/ B.E (Agriculture) course for which F.Sc (pre-engineering) is a requirement for admission. All first degree programmes are of four years duration. The Master's programme is of two years whereas Ph.D is spread over 3 to 4 years. The universities generally offer first degree programmes for the B.Sc (Agriculture) Hons. B.Sc (AH), DVM and B.Sc (Agriculture Engineering) or B.E. (Agriculture), whereas the colleges offer either B.Sc (Agriculture) Hons or B.Sc (AH)/DVM programmes.

9.1.13 Present enrolment in agricultural universities in Pakistan is 9823 i.e., about 10 per cent of the total enrollment of the universities. It is estimated that by the year 2010, it would increase to 33385. Looking at the growth trends in agricultural commodities, future relationship between scientific manpower and the required increase in output of agricultural commodities need to be defined carefully. It means that the educational institutions may slow down on some categories of agricultural graduates and accelerate on others.

9.1.14 At present, the agricultural universities limit themselves primarily to the teaching function, while research is ad-hoc, often irrelevant, and is done to fulfil the requirement of postgraduate theses or merely as an avenue for promotion and career development. Investment on faculty development in the agricultural universities is thus marginally utilized for national or provincial R&D programmes, which is a gross under-utilization of valuable human resource.

Engineering Education

9.1.15 Engineering education at degree level is imparted by one private and seven public universities and two constituent/affiliated colleges. In all the institutions F.Sc. (pre-engineering) is the general requirement for admission to first degree courses. According to the latest figures, present enrolment in engineering universities in Pakistan is 18798, which is about 19 per cent of the total enrollment in the universities. It is estimated that by the year 2010 the enrolment would increase from 19% to 37.6% i.e., 63,431.

9.1.16 The condition of laboratories in engineering universities is generally not good. Much of the equipment lies unused or is out of order because of the lack of appropriate technical supporting staff and maintenance facilities. The huge laboratories are manned generally with conventional laboratory staff (inherited from general universities pattern) possessing Matric or Intermediate science qualifications. At the same time, the faculty is not suitably experienced. There is no special provision in the curriculum or minimum requirement for any practical training and experience for the award of a degree.

9.1.17 It has been observed that 60-80% of the total number of students admitted to the engineering institutions go to the three traditional fields of civil, electrical and mechanical engineering. The engineering projects are diverse and complex requiring specialized training in sub-branches of the above major fields. The demand in emerging fields is increasing and calls for immediate action on the part of engineering institutions to introduce courses on emerging fields at under-graduate level.

Health Education

9.1.18 Health education in Pakistan is traditionally under the Health Department of the provincial governments as there is no university in health sciences in the public sector. There are 5 universities in health sciences in the private sector: Aga Khan, Hamdard, Baqai, Zia-ud-din and Isra. There are 34 medical colleges both public and private in

Pakistan, which are turning out about 4180 graduates in medical sciences both doctors and dentists per year. About 7822 paramedics are trained every year. The latest estimate for medical education shows that by the year 2010 about 12% of the university enrollment in science (i.e., 20,231 out of 1.17 million) would be in the medical profession.

9.1.19 Our doctors and paramedics are not exposed to the managerial skills needed for a health care system. Increasing technology and specialization have dramatically changed the role of hospitals. It has now become a complex structure and requires specialized handling for smooth operation. The training of doctors for management of hospitals and health care units is extremely inadequate.

Commerce and Business Education

9.1.20 Bachelor and Master level courses in the field of commerce and business are being offered in general universities. In addition, commerce education is also being offered at certificate, diploma, degree and postgraduate levels in 20 commerce colleges, 110 commerce training institutes in the public sector and a large number of commerce training institutes in the private sector. However, demand for the professional as well as middle level commerce and business education is expected to increase with the enlargement of the services sector. This discipline is growing at a faster rate as compared to the past. Graduates in various disciplines are also adopting this profession as their career. It is estimated that by the year 2010 about 30% i.e. 50,578 students of the total enrolment 0.17 million arts enrolment, would be in this domain.

9.1.21 Research in this field is almost non-existent. It is, therefore, desirable that research degrees programmes for M.Phil and Ph.D should be initiated at the universities of Sindh, Karachi, Punjab, and Peshawar during the 9th Five-Year Plan. The curricula and training programmes need to be modernized and made demand-oriented. Commerce colleges and business education departments of the universities should be encouraged to develop linkages with industrial and commercial establishments, specially, in the private sector for placement of their students for practical training and for undertaking research projects relating to specific problems.

Legal Education

9.1.22 Legal education is being offered at almost all general universities at different levels ranging from certificate/diploma to Ph.D and LL.B. degrees. Special courses in Islamic Law are being offered at the International Islamic University, Islamabad, and Islamia University, Bahawalpur. In addition, a large number of private colleges are also offering LL.B. level courses. The UGC has recently revised the curricula of legal education in collaboration with the Pakistan Bar Council and has introduced a three-year LL.B. programme at all universities imparting legal education. Latest estimates suggest that by the year 2010 about 10% of the total enrollment in higher education (16,859 out of 0.17 million of arts enrollment) would be getting legal education.

9.1.23 The curricula and training programmes at all levels need to be modernized/updated. Also, mushroom growth of colleges in the private sector needs to be regulated. Law colleges and departments of the universities should be encouraged to develop linkages with counterpart institutions imparting legal education abroad and to undertake research relating to specific problems.

Colleges

9.1.24 Colleges serve as nurseries to institutions of higher education and occupy a crucial position in the system. It is, therefore, important that they should be well looked after. In order to enable them to fulfil their important role, adequate facilities in terms of physical, financial, residential, laboratories, libraries, student support services and a congenial academic atmosphere must be provided.

9.1.25 The Pakistani system of higher education confers a general Bachelor level degree at the end of 14 years of schooling. Except for England, Australia, India and New Zealand, which have 15 years course for Bachelor's degree, the rest of the world follows a 16 years Bachelor degree course. One of the reasons for the non-recognition of our degrees abroad is this short duration of study at the degree level. In Britain, our Bachelor degree is considered equivalent to British 'A' Level qualification. Almost all the policy documents and reports of the past have highlighted the importance of a minimum three year degree programme.

9.1.26 A right step was taken by the Government of Pakistan in the early sixties when a three-year degree course was introduced following the approval of the recommendations of the Sharif's Commission Report of 1959. Due to strong student protest, the government of the day, however, reverted to the two year degree course.

9.1.27 All over Pakistan a large network of degree colleges exists. The universities, which already cater to the needs of Master and postgraduate courses, must exclusively concentrate on Master, M.Phil. and Ph.D studies. The degree colleges already have 4 year studies but that includes two years of Intermediate and 2 years of B.A./B.Sc. courses. A number of intermediate level colleges are also working in the country. The provision of 1979 Education Policy to separate intermediate level from the degree colleges and to make it an integral part of higher secondary schools needs to be implemented speedily.

9.1.28 Degree colleges are affiliated with the respective universities according to the area of jurisdiction. Through the system of affiliation, higher education is controlled by the universities while at the same time providing for a large portion of the population by means of a network of degree colleges, spread over far-flung areas. These colleges impart education at first degree level. Some affiliated colleges also run postgraduate courses, and are duly recognized by the universities for this purpose.

9.1.29 The vast system of college affiliation with respective universities has outlived its utility and has been stretched too far. The system of affiliation seems to have contributed significantly to the deterioration of academic standards in the country and has had less attention from the government for investment and improvement.

9.1.30 In view of the alarming situation and the inability of the universities to control the deterioration of standards of higher education, it would be feasible if this responsibility be shared with degree colleges. Reputed degree colleges be given degree awarding status and the autonomy to have their own syllabi and conduct their own examinations.

Quality

9.1.31 There is a general feeling that the quality of education has deteriorated rapidly and the present system has not responded to a large number of inputs made for raising the quality. The annual reports of the Federal and Provincial Public Service Commissions and other such recruiting bodies often point out the low quality of our higher educational institutions.

9.1.32 The question of quality is directly related to the quality of teachers and students and the support services provided to them by the educational institutions. The level of competence of teachers, curricula and the standards of students intake are the main contributing factors in the deteriorating quality of higher education. However, inadequate funding for student support services, libraries, journals, books, ill-equipped laboratories and lack of repair facilities for equipment and non-qualified staff are considered to be crucial factors in the low quality of education. The university budget is consumed by salaries and other allowances, and thus little is left for the items so essential for raising the quality of education. Budgetary constraints, particularly for operation, adversely affect the quality of teaching, specially practical training. Resources for research are negligible hence, postgraduate and staff research cannot be meaningful.

9.1.33 While the quest for quality has become a watchword all over the world, this aspect has not received sufficient attention it deserved, in Pakistan. In other countries, we find an increasing emphasis on this aspect in the establishment of quality councils, provision of quality assurance mechanism, performance indicators, academic audit, strategic planning and management, accountability and publication of league tables and ranking order of universities in teaching, research and provision of student support services.

9.1.34 At present, interaction among the universities, Research and development (R & D) organizations and the industry in Pakistan is nonexistent. As the financial resources are limited, essential facilities can only be provided if there is no overlapping and duplication. Industry is neither advanced enough nor properly motivated to participate in the research efforts of the universities and the R & D organizations. There is, therefore, a dire need for lasting links to be established among universities, R & D organizations and

the industry to develop teaching, research, science and technology in Pakistan. Perhaps a Federal Law is needed to make such linkages mandatory.

Faculty Development

9.1.35 Much of the strength of the graduate study programmes and the quality of research is determined by the quality of the teachers. The teacher is the central figure of the whole process. It is, therefore, important that his position is strengthened so that this profession could attract the best of the society's brains. Advanced level training of the teachers is, therefore, vital for quality higher education.

9.1.36 Qualified manpower is a prerequisite for advancement of knowledge, promotion of research and the socio-economic development of the country. The availability of such manpower is possible only through institutions of higher learning having well equipped laboratories, properly maintained libraries, conducive environment and necessary expertise which could provide leadership and guidance. Since advancement in scientific knowledge has made research a very sophisticated team-activity, a Ph.D degree is the minimum requirement to enter a research career.

9.1.37 Unfortunately, due to the lack of adequate training facilities for university teachers, the present position of teachers with Ph.D degree in the universities is alarmingly low. The number of staff members with Ph.D ranges from 9% in the NWFP University of Engineering and Technology to 66% in Quaid-i-Azam University. In fact, if the present day requirements of research are to be met, then the number of staff with Ph.D degrees has to be substantially increased. The present day training schemes for research degrees at home and abroad are insufficient for this purpose. A more dynamic approach is needed.

9.1.38 A large number of teaching staff needs higher qualifications. This is also substantiated by the conclusions of the study conducted by the Ministry of Science and Technology (1987, p.4) that most of science and technology facilities in the 20 universities were limited and the faculty was weak in qualifications. The study further found an acute shortage of qualified staff in about 85 R&D organizations and analyzed that the most of our existing Research and Development institutions have only 2 to 4 Ph.Ds. Thus, research in these organizations is mainly in the hands of those who are without research degrees.

9.1.39 Efforts have been made in the past to train manpower for institutions of higher learning through Central Overseas Training Scholarships (COTS) and other scholarship schemes. However, due to the high cost of training abroad, a limited impact could be made on faculty development. Only 43 COTS were available for all the universities having about 6000 faculty members and, therefore, only 1% of the teaching staff could be trained. We need a wide range of faculty development programmes for university/centers teachers to fill the gap of qualified manpower.

9.1.40 The present and future shortfall in qualified manpower is not sudden. It is rather a logical consequence of our past policies and attitudes towards faculty development. We have always depended heavily on foreign training of our manpower which has really failed to achieve the desired objective in making the country self-sufficient in faculty development.

9.1.41 The future scenario is more alarming when we see that by 2010, a large percentage of our qualified faculty in the universities will retire. If proper arrangements for their replenishment are not made, the situation will be critical.

9.1.42 Hence, in order to develop our university faculty, we need to evolve a strategy which should ensure simultaneous development of our institutions, as well as, the initiation of our own Ph.D programmes. This will not only help us in producing our own much needed highly qualified manpower through indigenous resources but will also accelerate research activity within the country. The best way to promote local Ph.D programmes is the introduction of split Ph.D programmes in collaboration with foreign universities through linkages.

Research

9.1.43 Our present postgraduate study programme constitutes an important means of advancing research in the universities. The quality of these programmes varies depending upon the facilities for research. Only a few institutions have postgraduate study and research programmes which measure up to international standards. In social sciences and humanities, the condition is far from satisfactory. There has been a general shortage of research oriented programmes in important disciplines of economics, sociology, psychology, philosophy, political science, anthropology, history etc. Apparently, this weakness is related to the shortage of manpower, lack of interest of talented students to take up higher studies in social sciences, and lack of library and research literature facilities. In essence, neither the postgraduate study programmes are extensive enough, nor, by and large, of sufficiently a high quality. Accordingly, this important means of advancing research is inadequately utilized.

9.1.44 Research in the universities can also be built up on research programmes around highly qualified teachers. All promotions to higher cadres in the universities are conditional to acceptable research performance by publication of the results of research in journals of international repute. Also, the better is the quality of research, the greater are the opportunities for attending international conferences, and international recognition. Although, in some departments and institutions reasonably good research is undertaken, yet this important and perhaps vital aspect leaves much to be desired due to the limited number of active scientists.

Funding

9.1.45 The major problem facing almost all the developed and developing countries, is the dilemma that arises from continued high social and individual demand for access to

various forms of studies and educational services at a time of growing constraints on public budgets. This situation is a principal source of strained relations between the state on the one hand and higher education on the other. The public expenditure on education has always been inadequate owing to continuous increase in costs. The educational expenditure is becoming increasingly heavy.

9.1.46 Higher education and research are capital intensive and are heavily subsidized. The federal government has picked up the liability of funding higher education since 1979. The recovery of the cost of higher education is minimal. It seems, therefore, desirable that expenditure on higher education should be shared in some reasonable form between student's fee, contribution from the management of universities and the government. Management of universities should raise a substantial amount of money from alumni and philanthropists.

9.1.47 The self-financing scheme was introduced in 1994 and implemented in universities by creating additional seats. Funds generated through this scheme are being utilized on research and other necessary requirements of universities. Admissions under this scheme are done on merit of the applicants who are generally just below the merit list. Their performance has been good and their parents have exerted pressure on them for diligent studies.

9.1.48 The self-generation of funds by the university sector, currently, is about 35% of the total recurring budget of the universities. We envisage that this percentage will rise to 50% of the total budget of the university sector by the year 2010. Currently, the total budget of the public universities is 3.1 billion rupees.

Discipline on the Campus

9.1.49 Higher academic standards, specialization and research are essential ingredients of the teaching-learning process. It requires a conducive environment that encourages creative thinking and promotes educational enterprise. It is, therefore, necessary to have discipline on the campus.

9.1.50 As a sequel to this thinking, the National Education Policy 1992 recommended that "eradication of campus violence will receive top priority in the management of education on campuses. The teachers and educational administrators will be vested with more authority to deal with acts of indiscipline. A code of ethics for students and teachers will be enforced for regulating their activities on the campus. Fresh inputs will be made to harness the creative activities of students in sports and co-curricular activities. Students will be exposed to extensive guidance and counseling. Special attention will be paid to the improvement of corporate life on the campus."

9.1.51 Pakistan as a nation has to bring back sanity on the campuses and restore the sanctity of the educational institutions, if it wishes to occupy its rightful place among the comity of nations in a competitive world of the 21st century.

9.2 Objectives of Higher Education

9.2.1 The purposes of higher education are multi-dimensional and may be termed as personal, social, economic and cultural. In the context of Pakistan, it has ideological meanings attached to its purposes as well. Pakistan as an ideological state cannot ignore its ideological moorings, national unity, individual and economic development and the needs of modern society for building a competitive nation whose individuals are scientifically trained persons and make their contribution to the socio-economic development of the country.

9.2.2 Education and particularly higher education cannot be divorced from its milieu and social context. Religious, moral, historical and cultural ethos permeate through the fabric of the educational system of a country. The context of higher education in Pakistan, therefore, is to be within the Islamic ideology which is the genesis of Pakistan and its cultural and religious traditions. This context is enshrined in the Constitution of Pakistan and in the Objectives Resolution. Thus the underlying purpose of the vision of higher education would be guided by the Holy Quran and the Sunnah through inculcation of Islamic ideology and moral values and preservation of our religious and cultural heritage. The purpose of higher education is thus to meet the socio-cultural and educational needs of the country. Therefore, we need to produce individuals who are morally sound; share the aspirations of the nation and are capable of performing multifarious roles in society.

9.2.3 Education is the medium and vehicle for the preservation, transmission and promotion of cultural values and provides the means to realize the objectives through the process of curricula, teaching and learning. This policy document takes the view that fostering national aims and objectives is the basic underlying philosophy of education. To realize the vision of a developed nation, we need to enhance the level of skills of its population and to produce highly educated and technically skilled manpower. Such an endeavor would need large spending and a commitment which will be reflected not in words but in deeds.

9.2.4 Technological advancements; rapidly changing pattern of scientific developments; and the need for acquiring new skills have introduced the concept of lifelong learning in the modern world. Therefore, the individuals have to continuously update their education, training and knowledge. The purpose of higher education also should take into account this aspect as well. Thus the objectives of the higher education would be:

i. To inculcate Islamic ideology, moral values and preservation of our religious and cultural heritage.

ii. To equip the individuals with the latest knowledge and technology.

iii. To provide sufficient base of scientific knowledge to every student and to enable him to contribute in nation building efforts.

iv. To promote intellectual faculties and develop capabilities of individuals so that they are able to play their role effectively in the society.

v. To produce highly educated and technically skilled manpower in sufficient number as required by the society.

vi. To increase access to higher education by providing places and to advance learning and generate knowledge.

9.3 Policy Provisions

Access

9.3.1 The access to higher education shall be expanded to at least 7% of the age group (17-23) by the year 2010.

9.3.2 Merit shall be the only consideration for entry to higher education. Access to higher education, therefore, shall be based on entrance tests.

9.3.3 New disciplines/emerging sciences shall be introduced in the public sector universities.

9.3.4 Public sector universities shall be encouraged to enlarge their intake by establishing additional campuses, ensuring all necessary academic, administrative and financial infrastructure.

9.3.5 Through the provision of better student support services, better teachers and good management, the present wastage rate shall be drastically reduced.

Professional Education

9.3.6 Selected disciplines at major institutions shall be transformed into 'Centers of Advanced Studies and Research.' These centers will function as growth points for quality education and research and breeding grounds for trained manpower.

9.3.7 The client organizations shall be adequately represented on the top policy, management, programme planning and monitoring committees of professional education institutions.

9.3.8 Allocation of resources to professional education shall be enhanced to ensure its functioning at an optimum level with the ultimate objective to enhance its contribution to the GDP.

9.3.9 Institutions of professional education shall be encouraged to generate internal resources, and financial management procedures shall be modified to facilitate this process.

9.3.10 Provincial agriculture research institutes working independently shall be merged with respective agriculture universities to boost research.

College Education

9.3.11 In order to bring our degrees at par with international standards and yet not disturb the existing academic structure, the following measures shall be adopted:

i. B.A./B.Sc. shall continue as at present;

ii. One year B.A./B.Sc. (Honors) course after B.A./B.Sc. shall be launched in all the colleges;

iii. Students with honour degrees shall be given preference for entrance to universities.

9.3.12 Government recruitment policy shall be reviewed at an appropriate time to replace B.A./B.Sc. by B.A./B.Sc. Honors degree as minimum qualification for entry to different jobs.

9.3.13 Reputed degree colleges shall be given autonomy and degree awarding status so that they are able to pursue their own courses of reading and also serve their surrounding area.

9.3.14 Degree colleges shall have the option to affiliate with recognized Pakistani universities or degree awarding institution for examination and award of degrees.

9.3.15 Funds shall be provided to improve buildings, libraries, laboratories and student support facilities of the degree colleges. Adequate educational and scientific equipment shall be provided to all colleges.

Quality

9.3.16 Selection of teachers and non-academic staff shall be done on merit.

9.3.17 To attract highly talented qualified teachers, the university staff will be paid at higher rates than usual grades. A proper service/promotion structure would be worked out.

9.3.18 A requirement for external and internal academic audit shall be made compulsory for all the institutions of higher education. Funds shall be allocated on the basis of their performance.

9.3.19 The libraries and laboratories of colleges/universities shall be strengthened to meet international standards.

9.3.20 The training of technical staff and maintenance of scientific equipment would be emphasized. Equipment Repair Centers and workshops shall be established. A proper service structure shall be developed for laboratory and technical staff of universities and colleges.

9.3.21 Curricula of the universities shall be revised at all levels and adjusted to the requirements of industry and brought to international standards.

9.3.22 At present, there are too many holidays for the educational institutions. Educational institutions shall be required to work full 8 hours per day.

9.3.23 In order to enhance the status of professional librarians, their status shall be brought at par with teachers.

9.3.24 Search committees for appointment of Vice-Chancellors shall be established.

Linkages with Industry

9.3.24 Representation of industrialists on university authorities shall be encouraged.

9.3.25 Interaction between universities and industries shall be arranged so that the students can apply their knowledge to real life problems.

9.3.26 Technology parks and industrial research centers shall be established in the universities to achieve this goal.

9.3.27 Commercialization of research findings and new technologies developed in the universities shall be encouraged.

9.3.28 The university departments shall hire marketing managers who should market the research findings of the universities and get research projects for the universities. University and industry should enter into joint research projects through various ways such as collaborative and cooperative teaching, joint or contract research, joint consultancy and joint venture companies.

Faculty Development

9.3.29 Local higher degree programmes shall be launched on a large scale in the Centers of Excellence (COEs) and other university departments by inputs to the university departments in terms of strengthening their laboratory and library facilities.

9.3.30 Split Ph.D programmes shall be launched in collaboration with reputed foreign universities, whereby, the teachers will undertake a part of their degree programme in local institutions, while completing their studies abroad for the rest of the period. At the minimum, 100 scholars shall be annually trained under this arrangement.

9.3.31 Linkage programmes with universities in foreign countries shall be developed to promote international cooperation and academic mobility through which programmes like research collaboration; short-term and long-term visits of faculty members and exchange of material be developed.

9.3.32 The system of assessment of the teachers performance shall be introduced for improvement of teaching learning process. Methods of self-assessment by teachers be introduced. The mechanism and assessment proforma shall be designed with the help of Vice-Chancellors' Committee.

9.3.33 A Teachers Service Training Academy shall be established for imparting intensive in-service training in field, such as, educational management (admin and financial), curriculum development, research methodology and teaching methods.

9.3.34 There shall be strong linkages between the universities and the communities in which they are located. The universities must play the role of agents of change in their areas of jurisdiction.

9.3.35 Along with the present tenure system, a contractual system of appointment for teachers shall be introduced in the universities and colleges.

9.3.36 Initial appointment of a university lecturer shall be in grade 18 and a university professor shall be placed in grade 21 and meritorious professor in grade 22.

Research

9.3.37 Goal oriented quality research of applied nature related to pressing problems of socio-economic and industrial significance shall be supported on priority basis.

i. The areas of research shall be prioritized and ranked in accordance with their usefulness for economic development of the country alongside development of human resources.

ii. Universities shall be required to register graduate students against research projects.

9.3.38 In universities, the balance between teaching and research should be shifted in favor of research. University budget should be reconstructed to support relevant research programmes. At least 10% of annual recurring budget of each university shall be allocated for research.

9.3.39 Dissemination of research activities and results will be institutionalized, and all researchers would submit their programmes and progress for critical appraisal through seminars and conferences.

Funding

9.3.40 The funding of education shall be raised from the present 2.2% of GNP to 4% with enhanced allocations for universities.

9.3.41 Universities shall be encouraged to generate internal funds through contract research, internships, consultancy services and through other resources.

9.3.42 Import of educational equipment shall be exempted from all types of taxes.

9.3.43 Universities and institutions of higher education shall be encouraged to admit students under self-financing scheme.

9.3.44 Poor and meritorious students shall be given waiver of fees subject to continuous good academic performance. Portions of Ushr and Zakat accumulations shall be used for needy students.

9.3.45 A federal government educational loan coordinated with local banks shall be established. Deserving full-time degree students shall be given interest-free loan. After one year of entering into service/trade, the loanee shall be under obligation to pay back the loan.

Discipline on the Campus

9.3.46 A Dean of Students Affairs shall be appointed in each educational campus for promoting and regulating the co-curricular activities of students. He will also act as Ombudsman to deal with the complaints of students.

9.3.47 Extensive guidance and counselling services shall be provided through teachers for promoting the welfare of students.

9.3.48 Placement services shall be established on each campus for providing information and guidance related to job opportunities and career planning.

9.3.49 A code of ethics shall be enforced to regulate the corporate life of students and teachers on the campus. Carrying of arms and ammunition of any type within the premises of the campus shall be banned and dealt with as a penal offense.

9.3.50 Teachers shall be vested with powers to deal with acts of hooligans and impose penalties on culprits.

9.3.51 All students shall be assigned community work during summer vacations.

9.3.52 Vice-Chancellor shall be vested with full authority to expel a student if he/she is not satisfied with his/her conduct and behaviour.

9.3.53 All quota/reserve seats shall be eliminated. Students from backward areas, who clear entry tests, would compete amongst themselves.

9.3.54 Rules regarding attendance of students shall be implemented.

9.3.55 University authorities shall develop an Academic Calendar of activities.

9.3.56 In order to eliminate violence, the all political activities on the campus shall be banned.

9.3.57 A "Grievance Committee" shall be constituted to look into the genuine needs and problems of the teachers, employees and students.

NCAAA

9.3.58 The federal government shall constitute the National Council for Academic Awards and Accreditation (NCAAA) under the University Grants Commission. NCAAA shall accredit and grant degree awarding status to institutions of higher learning both public and private. In addition, it shall regulate the establishment and operation of private institutions of higher education, as well as, affiliation/collaboration of local institutions with foreign universities.

9.4 Physical Targets

9.4.1 This Policy suggests a provision for three universities in the public sector in health sciences by upgrading King Edward Medical College, Lahore, Liaquat Medical College, Hyderabad and Khyber Medical College, Peshawar. The main characteristics of the new universities would be not only to turn out medical graduates but also to carry out meaningful research in medical sciences. These three universities may affiliate the medical colleges and thus would be able to provide professional guidance to the institutes of medical sciences to help improve the quality of medical education in Pakistan. The expertise and specialists are available in Pakistan.

9.4.2 The implementation programme has to be designed keeping in view the suggested yearly increase in enrollment in the universities and colleges. The present participation rate of 2.6% of the age group 17-23 years would need to be enhanced to 7% by the year 2010. According to the year-wise break-down of the projected enrollment, the participation rate at the tertiary level would be increased to 4-6% by the end of the 9th Five Year Plan or by the year 2002-2003. It would be increased to 7% by the end of the Policy Period i.e., by the year 2009-2010. In order to cater for the increased enrollment by the year 2002-2003 in the university education, seven new public universities and ten new private universities would be established. The government shall establish one or more women universities with campuses in provinces. By the end of the Policy Period (2009-2010), twenty one new universities would be established. The break-down of these 21 universities would be as under:

General universities*	10
Medical universities	3
Affiliating universities	4
Open universities	4
Total	21

*Including upgradation of National College of Textile Engineering, Faisalabad to National University of Textile Engineering and Technology.

9.4.3 In case of college education, 100 new degree colleges would be established by the year 2002-2003 and 500 by the year 2009-2010. In case of professional colleges, 50 new professional colleges would be established by the year 2002-2003 and 250 by the year 2009-2010.

9.5 Implementation Strategy

9.5.1 The implementation and monitoring in order to be successful requires the setting up of an accurate and reliable database which may facilitate the preparation of logical planning and effective programmes. There is, hence, a need to have a Management Information System (MIS) at the apex bodies like the UGC and the provinces. There is a need to strengthen the professional expertise so that the task of evaluation and monitoring can be accomplished with a high degree of professionalism. The UGC shall design performance indicators for each project initiated under the Education Policy.

9.5.2 The present ratio of Arts and Science subjects of 71:29 shall progressively be brought to 50:50 through the process of education planning.

9.5.3 Institutional diversity shall be the answer to stipulated greater access to higher education. In order to train the manpower, a large number of technical, vocational institutions would be needed.

9.5.4 Centres of Advanced Studies and Research shall be established in different disciplines.

9.5.5 The executive head shall have the managerial and leadership qualities and should be assessed before appointment. Administration of colleges will be decentralized.

9.5.6 Quality of higher education shall be improved through measures, such as, academic audit, revision of curricula, strengthening of libraries and laboratories, liberal grants, institutional capacity building, staff development, resource allocation, research funding, improvement of infrastructure and better student support services in institutions of higher education.

9.5.7 Community colleges shall be established keeping in view the special needs and available technical know-how of a particular area. New disciplines/emerging sciences shall be introduced in the public sector universities.

9.5.8 The education programmes with national development plans in various fields such as agriculture, industry, health etc. shall be initiated to ensure optimum utilization of the educated manpower.

9.5.9 Emphasis would be given to make the curriculum flexible so as to be responsive to the changing structure of the market. The curricula shall encourage thinking, creativity, and project construction ability.

9.5.10 Curriculum for science, engineering and technological disciplines shall be made compatible with international standards and matching the needs of the next century by developing libraries and laboratories. Professional base for curriculum development shall be enlarged by maximizing the representation from industry, business institutions and research and development organizations.

9.5.11 Information technology such as computers, Internet and e-mail service terminals would be provided in the universities for ensuring prompt supply of information.

9.5.12 In order to achieve the desired objectives of training human resources for meeting the needs of industry, the present status of colleges of technology shall be enhanced in terms of intake, course contents and industrial orientation.

9.5.13 More emphasis shall be given to on the job training particularly to agriculture graduates by making them work in agricultural extension services.

9.5.14 Efforts would be made for developing linkages and liaison between engineering universities and industrial establishments for practical training of engineering graduates.

9.5.15 Animal husbandry and veterinary science graduates would be required to undertake guided research/surveys as part of the requirement for the degree.

9.5.16 Laboratories in science and technology at college and university levels shall be equipped with required machines and materials to improve practical skills and to inculcate a sense of inquiry.

9.5.17 One of the leading colleges shall be declared as a sub-campus of university for B.A/B.Sc. examinations to lessen the burden of examinations on the universities and to make them more productive in their teaching and research responsibilities. The infrastructure at these colleges shall be developed to bring them to standards where they can be given degree awarding status. They can then be expanded into general universities at a later stage.

9.5.18 As an immediate measure to relieve some of the larger universities of the burden of external examinations, a suitable administrative reorganization of the examination branch is suggested. This may be in the form of a Pro-Vice Chancellor for external examination or a second controller of examinations for external examinations heading a separate examination branch or any other suitable arrangements deemed necessary by the Vice-Chancellor.

9.5.19 The provision of distance education needs to be expanded. Open universities shall be established wherever needed.

9.5.20 The present system of examination shall be further improved to have a continuous system of evaluation. Universities may continue to have diversity of examination systems on annual, term or semester basis. The system of external moderation shall also be vigorously pursued for objective assessment of students and the credibility of the system.

9.5.21 The system of examinations should discourage rote learning and emphasis should be laid on the acquisition of real knowledge. Multiple choice (objective-type) questions shall be introduced in examinations, whereby, the depth of knowledge of the students over a wide field could be assessed.

9.5.22 The examination departments of the universities shall be reorganized and provided training in management skills. Examination departments of the universities shall be fully computerized.

9.5.23 The National Testing Service shall be expanded and strengthened to cover professional colleges, universities and institutes of higher learning. Like Graduate Record Examination (GRE) and Test of English as Foreign Language (TOEFL) of USA, the National Testing Service should provide for testing of all interested candidates twice or thrice a year.

9.5.24 It is necessary to introduce standardized entrance examinations for entry to higher education which test the intelligence, aptitude and ability of the prospective candidate

before admission into universities is allowed. Admission shall be granted on the basis of a separate entrance examination with appropriate weightage to the earlier examinations.

9.5.25 The system of assessment of the teacher performance shall be introduced for improvement of teaching learning process. The mechanism and assessment proforma shall be designed with the help of Vice-Chancellors' Committee.

9.5.26 Inter-University faculty exchange programmes for short/long term shall be encouraged.

9.5.27 Loan facilities for higher studies shall be extended to the teachers. Liberal scholarship/fellowship schemes shall be launched at M.Phil/Ph.D level preferably in scientific and technological fields.

9.5.28 Immediately 200 Ph.D scholarships for existing and emerging technologies and selected fields shall be launched for university teachers. On completion of studies, their services shall be utilized by the concerned universities and educational institutions.

9.5.29 An endowment of national research fund of Prime Minister Development Fund for Rs. one billion shall be created for promotion of research in universities.

9.5.30 Industry shall set aside 1-2% of their budget for R&D work.

9.5.31 Each department producing Ph.Ds. shall be given additional grant for expansion of facilities and institutional strengthening.

9.5.32 Research degrees shall be encouraged in the area/subject/discipline that is in great demand for the socio-economic development of Pakistan.

9.5.33 Extensive guidance and counselling services shall be provided through teachers for promoting the welfare of students.

9.5.34 Special measures shall be taken for the development of statistical data and information system for analysis of key issues of higher education.

9.5.35 Civil administration shall support educational institutions to enforce discipline.

9.5.36 A yearly educational survey on higher education shall be published by the UGC.

9.5.37 Universities shall be encouraged to get ISO 9000 certification.

9.5.38 Transfer of technology shall be done through reverse engineering and applied research.

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CHAPTER

INFORMATION TECHNOLOGY IN EDUCATION

10. INFORMATION TECHNOLOGY IN EDUCATION

10.1 Conceptual Framework

10.1.1 In view of the advances in Information Technology (IT), access to information and communications have turned out to be one of the most significant social forces in the information society. Information has always been an important ingredient of social, political, and economic change. Also, it can be transformed into power that can be used to increase financial allocation to education. The low-cost computer-communications have the potential to expand that power base. However, if individuals are not computer literate and do not understand how these systems work, they will be unable to effectively participate in activities that affect their lives.

10.1.2 Information technology has become, within a very short time, one of the basic building blocks of modern industrial society. Understanding Information technology and mastering the basic skills and concepts of information technology are now regarded by many countries as part of the core of education alongside reading and writing. This area of study goes under the all-embracing name of informatics. Justification for informatics learning stems from the reality that information technology now permeates the business environment and underpins the success of modern corporations as well as providing government with cost efficient civil service systems. At the same time, the tools and techniques of information technology are of value in the processes of learning and in the organization and management of learning institutions. The trends in the need for qualified personnel (computer scientists) give a clear demonstration of the need for effective informatics learning at all levels.

10.1.3 According to UNESCO, all governments aim at providing the most comprehensive education for all citizens within the constraints of available finances. Because of the pivotal position of information technology in modern societies, the introduction of informatics into secondary schools will be high on any priority agenda. UNESCO also emphases the fact:

> "Without political vision, technological innovation leads the quality of life, unimproved. Anticipations of future technologies depict wonders tools for living, but then culminate with "a day in the life", usually an ordinary office routine with little at stake that was different from what would be at stake in the corporate office any where today. Such visions, do not inspire people to solve human problems old and new, to join together with shared hopes and historic aspirations, enabled now to act on issues hitherto in accessible to the common weal. Educators need power, not purity, technologists need vision, not predictability. Together educators and technologists have the historic opportunity to improve the civic prospect - that is the message of power and pedagogy."

10.1.4 Computer technology has the fastest rate of return. With proper education and minimum hardware usually leads to most effective source of quicker returns. Also, information technology lowers the time spent on a job, thus lowers labour cost, increases productivity, reduces spoilage, reworks, scrap work, etc. ensuring optimum use of resources. The Information Superhighway has great potential for improving the quality, efficient management, effectiveness and access on higher education to a vast population of students in our country. It has put at the disposal of academic community the vast data bank on a worldwide basis. Laboratories around the world are in effect sharing a common chalkboard-the Internet. Theories and experimental results are all being shared electronically, with the geographically dispersed community. Internet, thus, provides for the third world vast opportunities for the development of science and technology.

10.1.5 The advent of Information Superhighway shows that education need no longer be limited to face-to-face learning situations. Learners can choose their own place, time and mode of study. The educational institution is no longer the sole provider of knowledge. Mass communication media such as television, computers, particularly the Internet are playing a crucial role in the dissemination of knowledge. Information technology will continue to be pervasive and multi-dimensional in providing access to learning. With the application of information technology, teaching-learning situations have multiplied and diversified. Using technology to instruct, and tailoring learning programs to meet the needs of learners, is now an important factor and challenge in meeting the educational needs of students. Thus, the use of information technology has unlimited potential for distance education too.

10.1.6 The Dearing Report (1997) has anticipated that over the next century, higher education services will become an internationally tradable commodity within an increasingly competitive global market. According to the report, the development of a world market in learning material, based on information technology, will lead to the formation of trading partnerships between institutions for the provision of infrastructure, services and content. Our universities need to concentrate on information technology and should use its vast scope for developing teaching and learning resources and improving the quality of education as well as linking themselves with the scientists in other countries.

10.1.7 The investment in information technology infrastructure and its network will bring our institutions of higher education on to world map in providing higher education. Therefore, we need to encourage Internet access and gateways for the purpose of teaching and learning and develop electronic libraries for online delivery of higher education to a vast student population. We have to realize that information technology promises a great future and can play vital role in enabling institutions to overcome their present isolation and shortage of resources. This is particularly vital in view of present resource constraints accompanied by increasing number of student population. Investment in information technology can help overcome this drawback. We, therefore, need to fully exploit the advantages of this technology to our benefit.

10.1.8 Information technology is developing as a major industry in the world. Several small countries have become major information technology producers or sophisticated users. The potential of information technology as industry in Pakistan has yet to be capitalized. The Government of Pakistan has already shown deep interest in it. However, for such an interest to bear fruit, there is need for a platform for both the public and private sectors to communicate with each other. The most important question is, how can we benefit from this information revolution for the development of our education and give access to our teeming millions who cannot afford books. How can we use it for the distance learning process? The means and expertise are required to utilize and disseminate information. In addition to this, the country also needs highly trained computer scientists and engineers who would carry out research and development in this field and provide effective teaching and training support to academia and industry as well as the intellectual backing for software industry to be able to compete at the international level.

10.2 Objectives

10.2.1 To modernize education in Pakistan via the application of information technology at all levels.

10.2.2 To emphasize different roles of computers as a learning tool in the classroom, learning about computers and learning to think with computers.

10.2.3 To provide Internet accesses to *electronic* libraries around the world for speedy access to the international source of knowledge.

10.2.4 To popularize information technology among children of all ages and prepare them for the next century.

10.2.5 To employ satellites and related communication technologies for the training of teachers and educational activities.

10.3 Policy Provisions

10.3.1 Computeracy (computer literacy) will be spread among all educational planners and managers and will be made an integral part of all management training courses conducted at federal and provincial levels.

10.3.2 Computers will be introduced in secondary schools.

10.3.3 School curricula will be aligned toward recent developments in information technology such as software development and the Information Super Highway, and Designing Web Pages, etc.

10.3.4 Educational institutions will be provided Internet facilities.

10.3.5 The subject of computer education/science will be introduced at higher secondary and degree levels in phased manner.

10.3.6 A crash programme for the training of teachers will be launched with the assistance of computer science departments in the universities.

10.3.7 Computer education will be made compulsory component for all training programmes in the education sector.

10.3.8 Satellite (PakSat-2) when functional, will be used where mass education and training efforts are involved, such as teacher training.

10.3.9 Application of multi-media at various levels of education will be introduced.

10.3.10 Software development competition, incentive based, will be launched at national level for school and college students and others.

10.3.11 Incentives in the form of match grants will be provided to the private sector to open high quality training and research institutes in computers and electronics.

10.3.12 Amateur Computer Clubs will be encouraged in collaboration with private enterprises.

10.3.13 A Cyber-Institute will be established in Islamabad. This will provide access to the Internet, thus making it available to those who would like to further their knowledge from within their homes. Course materials will be developed using hypertext, and multi-media technologies and placed in a Server (computer) for instant access. Students in Pakistan and in other countries can automatically enrol in different courses. Assignments of multiple choice can be retrieved by the student for instant evaluation. Cyber-Institute will not require huge physical infrastructure, it will be the most cost-effective educational institution of its kind in Pakistan.

10.3.14 The facilities of e-mail via Internet will be provided to all institutions of higher learning.

10.3.15 Centres of advanced computer sciences and information technology shall be established in all the universities.

10.4 Physical Targets

10.4.1 In 1,000 secondary and vocational institutions, computer labs would be provided. About 1500 computer teachers would be appointed and trained for computer education in these institutions.

10.4.2 All university teaching departments, and 200 colleges will be provided Internet connections. In addition, Cyber-Institute will be initiated as a pilot project by Academy of Educational Planning and Management.

10.5 Implementation Strategy

10.5.1 With the exception of universities, several educational institutions in the country lack electricity let alone any computer facilities. Applications of information technology will inevitably require, not only a continuous flow of electric power and appropriate physical environment, but also computer expertise. A suitable curriculum and computers for teaching are other necessities. Each institution will need a computer lab equipped with at least 10 computers. Besides meeting the huge cost, to be successful, information technology applications will depend on the availability of trained teachers.

10.5.2 Information technology will be included as a subject in the new stream of technology being introduced under the policy. Curriculum will be developed catering to the needs of the next millennium and in line with UNESCO's guidelines. Computer training will be introduced in teacher training institutions to prepare teachers for their new role as teachers of computer education in schools. Computer science department of the universities will be involved in this effort to ensure quality training. At least one boys' and one girls' school in each District will be identified for providing a computer laboratory.

10.5.3 Committee of computer specialists shall be formed and PakSat2 would be engaged for educational campaign. Colleges and secondary schools will be provided access to electronic libraries via the Internet.

10.5.4 Multi-media application and software development competition, and education of information technology will become necessary input for accelerating education development in the country.

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CHAPTER

LIBRARY AND DOCUMENTATION SERVICES

11. LIBRARY AND DOCUMENTATION SERVICES

11.1 Conceptual Framework

11.1.1 The socio-economic development of the country necessitates a steady intellectual growth of people which requires among many other things, free public library service. Libraries play a vital role in overall development of education and research in the country. Education in Pakistan needs a new orientation and direction for quantitative expansion and qualitative improvement to meet the challenges of the 21st Century. This in turn depends on the support of well organized libraries at all levels from primary schools to universities. Side by side with academic libraries the establishment of an integrated network of public libraries in the country is essential to create well informed citizens worthy of serving society decently. The present government wishes to create a literate society and to provide sustained motivation for neo-literates to continue their education. Thus due importance will be given to the provision and progressive improvement of library facilities and services in order to contribute effectively to national development.

11.1.2 The future belongs to countries whose people make the most productive use of information, knowledge and technology. Knowledge has become the most important economic resource. Knowledge and information will be the engines to drive the economy in the 21st Century. Library forms a key pillar in the overall infrastructure to expand our nation s capacity to learn. It has a crucial role in supporting the entire spectrum of our population in life long process of acquiring new knowledge and skills. Libraries not only provide points of access to the materials available, but they also cater to variegated needs of the people and the specific needs of different economic sectors. Besides, its function as a gateway and repository of knowledge and information, library also functions as a nuclei of culture and heritage. Through the many programmes and services offered, library can indeed provide the social setting which allows for learning through interactions and hence opportunities to gather knowledge through informal channels. The ultimate aim of library should be to enable people to read more and absorb knowledge.

11.1.3 Comparative Analysis: According to a survey conducted during 1990 in Pakistan, there are about 1430 libraries, out of which 140 are academic/university libraries with total No. of 452 service points, having almost 3,900,000 volume, i.e. more than one-fifth of all the books in Pakistani libraries, whereas 680 colleges hold more than 3,640,000 volume. Likewise 280 public libraries hold the country s third largest collection of 215,000 volume. Similarly 330 special libraries hold some 2,500,000 volume. However, there are only 481 school libraries, out of 150,000 schools, with 980,800 volume in all and only 30 professional librarians are placed in these poor school libraries. According to another estimate, there is a total number of 1200 libraries in Pakistan out of which about 50% belong to educational institutions 25% are attached to specialized institutions whereas 25% libraries are of other types. The total number of existing libraries is grossly inadequate for a country like Pakistan having population of over 14 million and as such do not facilitate easier access to knowledge.

11.1.4 As compared with the developed and developing world with our existing number of libraries and their resources, it again paints a very dismal picture of our holdings. For example, in the USA, there are more than 31,254 libraries including 10,000 special libraries. The Library of Congress in USA, has more than 90,000,000 items in its collection. According to 1990 statistics, Israel has 3419 libraries for its population of 5,000,000 people. Tanzania with the lowest GNP (i.e. $ 70) has currently 3200 rural libraries whereas our National Library of Pakistan has a total collection of around 125,000 volume. The reading habit is declining sharply in Pakistan due to non-existence of proper library facilities. The total collection in 1430 libraries comes to 15,000,000 books which shows 0.1 book per reader in Pakistan whereas, 58 books are available for every citizen in Japan. There are 141 dailies being published in different languages in the country with the total circulation of 3,064,172. Thus one newspaper is read by 17 readers in Pakistan. The number of libraries, and strength of their collections is one of the indicators to assess the socio-economic development level of the country. No literacy campaign or drive can be successful without establishing the proper network of libraries throughout the country. Thus, special efforts shall be initiated to establish the desired network of libraries.

11.1.5 In view of the increasing need of timely access to relevant information in education, research and training, a well-equipped and full-fledged automated "National Documentation Center in Education" is essential to supplement the educational, research and training activities. Documentation Centres to cater information needs of other sectors of national development shall also be established. At present, research literature produced by various academic and research organizations is scattered and not easily accessible for research activities and does not, therefore, cater to the information needs of researchers, teachers, students, educationists under one roof.

11.1.6 The category/area-wise status of the libraries in the country is as follows:-

i. **School Libraries:** School is the base for formal education. It should be given prime importance to infuse quality education. At school level, due importance has not been given to libraries for enhancing the standard of education. About 80% schools are without any library facility in the country. According to the survey conducted in 1990, there are only 481 school libraries out of 150,000 schools with the meager collection of 980,800 volume. In most of these schools, libraries are kept beyond the reach of students due to non-availability of professional staff, proper space and environment. At present, only 30 school libraries are being run by qualified librarians.

ii. **College Libraries:** The college libraries which are the largest group of libraries in the country have also been facing the problems of poor services, out-dated collection of reading materials, financial constraints and inadequate professional staff. There are colleges and institutions which have enrolment of thousands of students and one librarian is

managing the library services who cannot organize the collection properly and is unable to provide timely services to all students and teachers single-handedly. In view of increasing student's enrollments and teaching staff, reasonable number of professional staff is needed to be appointed which will definitely improve the standards of library services and quality of education and teaching. Presently, 680 colleges have libraries, holding more the 3,640,000 volume. Their collection ranges from 500 to 200,000 books out of which 60% has become out-dated particularly in sciences, medicine and technology disciplines.

iii. **University Libraries:** There are 140 libraries in the universities and their affiliated institutions with a total number of 452 service points, having almost 3,900,000 volume which is more than a fifth of all books in libraries of Pakistan. These libraries are comparatively in a better position, but still lack the latest materials, equipment, viable financial resources, access to information technology, electronic media, etc. The university and its affiliated institutes are the higher seats of learning. A well-established library with up-to-date collection, suitable for study and research is a pre-requisite for modern quality higher education. In Pakistan, academic libraries are unfortunately in bad shape. For the last many years, the university libraries are not getting appropriate funds to purchase the latest books and research journals. Sufficient funds will be provided on regular basis for the purchase of books, research journals, computers, installation of Internet facilities and linking of university libraries through electronic media.

iv. **Special Libraries:** 330 special or institutional libraries are set up at different level in various R&D organizations and S&T institutions to meet the specific organizational information needs. These hold some 2,500,000 volume but they are facing the problems of shortage of resources, equipment, proper facilities, budget, expertise, and sustainability in maintaining the standard of services. Efforts shall be made to improve their condition.

v. **Public Libraries:** Our public libraries, with a few exceptions, are in a very deplorable condition. These are just reading rooms of newspapers and few magazines. Non-formal or informal education of people is of utmost importance and necessitates serious attention of the government. If public libraries are well-equipped, properly organized and managed by professionals, there will be a great refinement and improvement in the social, cultural, political and religious behaviour of the people. Presently, there are more than 280 public libraries, mostly located in the urban areas of the country. Public libraries not only can play a significant role in promoting literacy through self-education, but also provide educational, informational and recreational materials for the community as well as the

individuals. In the successive policies and plans, this important factor could not invite the attention of the policy-makers and planners. It is, therefore, imperative to strengthen the information resources and increase their number by setting up new public libraries through legislative and other means.

vi. **Rural Libraries:** Our rural population constitutes 65% of the country whereas proper library services are not available to this community. Apart from the significant role of the rural library in promoting the reading habits, the library services to the community have traditionally been broad-based and multi-dimensional as compared to other agencies serving the community. These could be utilized to create awareness in the community for solving problems and concerns regarding their educational, cultural, informational and recreational programmes and activities by arranging exhibitions, organizing book fairs, inviting speakers, holding seminars/meetings, celebrating special occasions/days, arranging film-shows, and arranging story-hours for children and women folk, etc. In addition, electronic developments are currently available that can also be used to bring library services to the door-step of people. Consequently, library can play a deeper role towards national integration; promoting local, regional, national and international understanding; modifying the behaviour of groups and classes; and eliminating conflicts and confrontations in a community by providing varied opportunities for positive and constructive activities to the citizens. Thus, a library can become a very important link in local as well as national cohesion, unity and discipline. The fact that not all the small cities, towns and villages have libraries, points to gross neglect of the past. The Ministry of Local Government will be involved for improving Union Council libraries in the rural areas. This area calls for active participation of the local populace who if properly motivated will be only too willing to financially contribute. In view of the limited resources; the library services cannot be extended simultaneously to the remote areas and scattered rural population in the country. It is, thus, imperative to introduce the mobile library service for every 50,000 population living in far-flung areas. This experiment was practiced successfully in USA and some African countries during early part of this century. The mobile library service has already been started in Lahore Division in 1990 which visits 7 to 8 places in the suburban areas of Lahore.

vii. **National Library of Pakistan:** The National Library of Pakistan has been established after 45 years of Independence. It was inaugurated in August, 1993, since then more than 125,000 volume including 525 manuscripts have been collected. An operational library software is in the final stages of development. At present, the Library is inadequately staffed and funding is poor. For sustained development of its growth,

programmes, policies, and to function as the leading library of the nation, necessary legislative support is needed.

11.2 Objectives of Library and Documentation Services

11.2.1 To develop reading habits among masses and provide information and research opportunities through libraries which will in turn, re-enforce literacy movement as libraries are considered part and parcel of educational system and agent of social and economic change.

11.2.2 To strengthen the existing educational system quantitatively and qualitatively by improving the services and access to the latest information sources, both printed and electronic media.

11.2.3 To establish the multimedia libraries and information resource centres at grass root levels i.e. Union Council which will encourage and attract the youths and adults to self-learning and similar constructive activities.

11.2.4 To promote national integration and tolerance among various classes, at regional as well as national level through knowledge-based activities. This will also help to discourage sectarianism in the country.

11.2.5 To inculcate reading habits among the people by providing ample opportunities through libraries with better understanding of the democratic values and socialization.

11.2.6 To identify the users' need through needs assessment surveys/evaluative studies for different types of libraries to determine their weaknesses and strengths for proper planning, better management and revamp the library systems in the country.

11.2.7 To standardize and improve the library and documentation services by formulating the library standards and library legislation.

11.2.8 To encourage the open shelve (open access) system in the libraries for easy access and quick retrieval of information for users/readers.

11.2.9 To promote the library movement and enhance professional development in the country, trained and professionally competent librarians will be produced.

11.2.10 A comprehensive and workable service structure for all types of library professional shall be formulated.

11.2.11 Library and Information Sciences shall be popularized by introducing as a discipline in schools/colleges to the university level.

11.3.13 A full-fledged "Federal Library Foundation" on the pattern of "Punjab Library Foundation (1985)" shall be established for effective supervision and implementation of policy targets and expansion of public library network in the country which will be administered by the professional staff.

11.3.14 For systematic growth and sustainable development of libraries and facilities, the financial resources shall be increased to a respectable level.

11.4 Physical Targets

Nature of Libraries	No. of Libraries (To be established/strengthened) 1996-97	
School Libraries (Only 20% schools have libraries which are at best modest)	i) Primary	145,000
	ii) Middle	15,000
	iii) Secondary	11,000
	Total	**171,000**
College Libraries (Art + Science + Professional Colleges)		**975**
University Libraries		**35**
Special/Departmental Libraries		**1500**
Public/Rural Libraries (At Union Council Level)	**Union Councils**	
	i) Punjab	2393
	ii) Sindh	612
	iii) NWFP	655
	iv) Balochistan	315
	Total	**3975**
Mobile Libraries (One each for 50,000 population)		**2000**
Establishment of **National Documentation Center in Education**.	**1 (Library) + 1 (Doc. Center) =** (coordinate research activities to provide computerized services and educational documentation across the country, and catering information needs to educationists, researchers, teachers, students, etc. under one-roof).	**2**

11.5 Implementation Strategy

11.5.1 National Documentation Center in education with the core collection of 50,000 research reports shall be established.

11.5.2. University libraries, and major research libraries shall be linked with the National Library of Pakistan through Internet to share the national information sources.

11.5.3 Book Banks shall be established in academic libraries for free textbook service to the needy students.

11.3 Policy Provisions

11.3.1 A well-integrated network of public libraries will be established at grass-root level with the financial support of local bodies in the country, to promote literacy by providing opportunities for self-education and inculcating reading habits among the masses.

11.3.2 School, College and University libraries will be equipped with the latest reading materials/services. One *Internet*, connection with computer shall be given to each library for easy access to electronic libraries.

11.3.3 The use of latest information technology, library automation, computers, databases, CD-ROM technology, etc. in special libraries will be encouraged.

11.3.4 Mobile Library Service for semi-urban and remote rural areas will be introduced.

11.3.5 More funds will be allocated for development and extensive use of library facilities in the country.

11.3.6 Library standards for different types of libraries i.e. Public Libraries, Special Libraries, University Libraries, School and College Libraries will be prepared to ensure the provision of better and effective library services.

11.3.7 Open shelve (open access) system will be encouraged in the libraries to facilitate the clientele.

11.3.8 A cadre of Librarians shall be created to make the Librarian job more professional.

11.3.9 Library and information science shall be introduced as a discipline in high schools/colleges. M.Phil and Ph.D. programmes in library science shall also be introduced.

11.3.10 The administrator of schools and colleges shall be motivated to introduce library period for developing reading habits among the students.

11.3.11 For the proper growth and development of libraries as systems in the country. Library services and facilities shall be improved, expanded and strengthened so as to make it at par with international standards.

11.3.12 To meet the information needs of the citizens, five model public libraries, one at each provincial capital cities including Islamabad, in collaboration with local development authorities, shall be established.

11.5.4 A comprehensive library and Information Services Policy through an Act shall be introduced in the country and service conditions of library professionals and staff shall be further improved in line with other professionals working in different fields/disciplines and to provide adequate financial requirements and legal support to the development of libraries in the country.

11.5.5 To promote the library movement in the country, it will be necessary to establish properly trained and professionally competent cadres of librarians, both for educational and public libraries. Federal and provincial governments shall take necessary steps to create proper service structure for professional librarians.

11.5.6 To give proper status to the National Library of Pakistan, a National Library Act shall be enacted.

11.5.7 Scholarships for foreign as well as inland study and training in Library and Information Science shall be awarded as is done in the other disciplines/subjects.

11.5.8 Endowment fund for the development of libraries in collaboration with donor agencies shall be created.

11.5.9 Library period shall be introduced in the school time table.

11.5.10 For the formulation of library standards, and legislation, the expert committees shall be formed. For conducting training courses and surveys, annual grant will be increased accordingly.

11.5.11 Five Awards shall be instituted for the best librarian as well as the best library of the year.

11.5.12 To determine the users' needs, assessment surveys and evaluative studies shall be conducted for different types of libraries that shall provide baseline for proper planning and improvement of library systems.

11.5.13 A comprehensive and workable "Write-Off" and "Weeding-Out" policy shall be framed to encourage the open-shelve (open access) system in the libraries.

11.5.14 To develop library services in the country adequately, the library legislation shall be introduced for providing legal basis for workable structure, proper management and adequate financial support for library systems in Pakistan.

11.5.15 A full-fledged separate Cell shall be created within the Ministry of Education to coordinate and advise on administrative, procedural, legal, policy matters, etc.

11.5.16 The libraries development fund shall be increased from 0.2% to a reasonable level to achieve the policy targets effectively.

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CHAPTER

PHYSICAL EDUCATION AND SPORTS

12. PHYSICAL EDUCATION AND SPORTS

12.1 Conceptual Framework

12.1.1 The modern concept of education stresses upon all-round development of the individual. Physical education with special emphasis on sports and games is an integral part of education, concerned with health and physical fitness. It also contributes along with other branches of education to mental, emotional and social development. Thus, physical education is important for the development of personality.

12.1.2 The majority of the physical education teachers in educational institutions including schools, colleges and universities are graduates of various colleges of physical education in Pakistan. While they are supposed to perform field assignments, their entire education is theoretical with very little field work as an integral part of their training system.

12.1.3 There is no concept of specialization in the training of physical education teachers. Therefore, specialization in one or two disciplines is essential. Programming, which is the most vital aspect of physical education, is not given any priority or attention. Thus, teacher training programmes in physical education lack job-oriented training and quality. The teachers, therefore, are not equipped to handle their job or to run programmes involving large student community. Added to this complex problem is the intake of aspiring physical education students. At present, there is no compulsion that students enrolled in the physical education courses at graduate level should have studied physical education in their higher secondary school. Consequently, substantial percentage of physical education graduates neither have the sporting interest nor the relevant background.

12.1.4 Lack of avenues in career is also a contributing factor to the average or below average quality of physical education teachers. Their role in educational institutions is down-graded to that of a general duty person who is asked to do various chores. Though, at least on paper, the physical education teachers have equivalent educational background, career openings for them are very limited. With lifetime service in the same grade, the service structure is not incentive-oriented. This needs to be improved radically.

12.1.5 Physical education is compulsory in educational institutions with a minimum of three periods of 40 to 45 minutes per week. These periods are never properly utilized simply because the person in-charge has no knowledge of scientific programming. The only sporting activity is the annual sports function or a P.T. show for visiting V.I.Ps. This does not serve any purpose. Regular sporting programmes are generally missing from the overall system. Non-availability of playing facilities in schools further adds to this difficulty.

12.1.6 One of the major problems in educational institutions is the absence of regular sporting programmes. Additionally, whatever programmes do exist, are not relevant in the context of national priority. Lack of infrastructure, like playgrounds, fields, gymnasiums and sports hostels, is considered to be a major inhibiting factor. Each province must have a minimum of modest educational sport complexes with outdoor stadiums, indoor gymnasiums and sports hostel. These sports complexes in each province would be made available to all the educational institutions by rotation. In the second phase rural areas would also get this facility beginning at the tehsil level. This pattern has been adopted with great success to control urban juvenile delinquency all over the world. These sports complexes could become the venues of regular summer and winter training programmes for talented athletes on the pattern of similar training programmes organized at the national coaching Centres during the early sixties with tremendous success.

12.1.7 The cost of equipment has gone very high. Eighty percent of the student community in Pakistan cannot afford to buy hockey sticks, cricket bats, footballs, volleyballs or other items of athletic equipment from their own resources. It is, therefore, essential that a separate provision of standard equipment be made annually and placed at the disposal of the institution for the use of student community only.

12.1.8 Physical education and sports also affect the character of an individual. Character building means raising decent future generation, in a society. In this context, three components are worth mentioning: a family which includes parents, brothers and sisters, educational institutions and society as a whole. Without integrating the efforts of the three components, success is not possible. The values that we have built in our society are constantly being challenged. The option is between bullying reformation or rational approach with the sole object of conveying a message to millions of children which should not only register in their minds and hearts but should also create realistic voluntary acceptance of those ideals. Parents have the most crucial role to play because over indulgence of parents can literally ruin the lives of children. Naturally, inherent qualities of kindness and sympathy in young children can only flourish with the active guidance of parents.

12.1.9 Introducing large scale family club system with avenues of family recreation, collective sporting activity could be a start, though modest . Once a young student understands that institutional loyalty and submission of individual to the larger community is in the best interest of everybody, a healthy bondage would automatically develop. Love and security of belonging are two important virtues of character building.

12.2 Objectives

12.2.1 To promote sports and games from the grass root to all the tiers of the education system in the country.

12.2.2 To develop infrastructure for linking educational institutions with the Provincial and Federal Sports Boards/Departments.

12.2.3 To inculcate the spirit of sportsmanship and other higher values relating to character building in the youth.

12.3 Policy Provisions

12.3.1 Special syllabus about character building shall be made an integral part of all the teacher's training institutions in Pakistan.

12.3.2 Two periods a week shall be devoted for co-curricula activities in school.

12.3.3 Competitions will be arranged where groups from different schools would compete in programmes aimed at bringing out the finest qualities of human character.

12.3.4 Schools would develop outdoor programmes in which groups will be made to live outside their normal environment to develop awareness of the values that improve the structure of the society. These outdoor programmes can include adventures, sporting activities and collective mental toughness exercises.

12.3.5 Television, without making it too obvious, will telecast programmes, especially in the morning hours during holidays emphasizing Islamic values of honesty and morality, etc.

12.3.6 Parents-teachers meetings in schools will be institutionalized on scientific lines instead of making them a social get together.

12.3.7 Retired senior officials would be involved in the programmes to create awareness in the society in their respective areas regarding the obligation towards children and the future of the country. These senior citizens would be extended proper cooperation by educational institutions and the parents.

12.3.8 The institution of family clubs with elementary recreational and socializing facilities shall be introduced on a large scale.

12.4 Physical Targets

12.4.1 Infrastructure: The following minimum infrastructure would be created because of the acute shortage of infrastructure in educational institutions within a period of three years in Quetta, Karachi, Lahore, Peshawar and Islamabad.

i. Multi-purpose indoor gymnasium with seating capacity for 500 people;

ii. Multi-purpose sports stadium with seating capacity for 3000 people and a six lane synthetic track, football ground, outdoor basketball courts and indoor squash courts, a table tennis hall; and

iii. Dormitories for 200 sportsmen and sports girls, one each in Quetta, Karachi, Lahore, Peshawar and Islamabad.

12.4.2 This infrastructure would be used by the surrounding educational institutions on a rotation basis and be made available to every school without distinction or patronage.

12.4.3 Financing: 50% of the total cost of the above proposed infrastructure would be borne by the respective Boards of Intermediate and Secondary Education in Quetta, Karachi, Lahore, Peshawar and Islamabad from their available financial reserves, including sports funds, while the balance of 50% would be provided by the provincial governments, concerned, and in case of Islamabad by the federal government.

12.4.4 Sports Equipment: Sports equipment shall be provided by educational institutions for teams and collective sporting activity. The equipment would be retained by the educational institutions and only given when the activity takes place.

12.5 Implementation Strategy

12.5.1 Scientific sports programming and specialization in at least two disciplines will be made an integral part of the syllabus of all those institutions which produce physical education teachers of various types and colleges of physical education all over the country.

12.5.2 Preferably those students will be enrolled in physical education colleges who have a decent sports background and have studied physical education in their higher secondary school system.

12.5.3 At least one third of the total time frame of the study period in colleges of physical education or universities, etc. will be earmarked for practical training. This will compulsorily include a stint with National Sports Federations during national events to provide up-to-date know-how in planning and execution of sporting events.

12.5.4 In order to attract dedicated people who are genuinely interested in sports and physical education, career openings will be made at par with the main teaching cadre.

12.5.5 In absence of playing fields in educational institutions, a programme of jogging and hiking shall be initiated.

12.5.6 Inter-school sports competitions in various disciplines including indigenous games would be regularly held at tehsil, district and divisional levels, culminating in a youth sports festival inviting champion teams from all over Pakistan.

12.5.7 Regular summer camps in various sports would be held during the summer vacation, especially in hockey, football, athletics, boxing, basket ball, volleyball, tennis, badminton and wrestling. The summer camps would be supervised by qualified coaches, preferably from abroad, as no scientific cadre of coaches on such a large scale is available in Pakistan.

12.5.8 Coordination between the Ministry of Sports, Culture and Tourism and Ministry of Education will be strengthened. These are the two inter-connected domains and better results can be produced through the combination of sports and education.

12.5.9 Certain schools would be earmarked for specialization in which boys who excel in certain sports would be given free admission and exemption from tuition fee.

12.5.10 Heads of institutions whose students produce outstanding sporting results would be rewarded.

12.5.11 In order to streamline sport activities in educational institutions all over Pakistan and to draw a realistic programme, a Steering Committee comprising of representatives from Education and Sports and Culture Ministries/Departments at Federal and Provincial levels as well as President, Pakistan Olympics Committee and Sports Board, etc., shall be constituted.

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CHAPTER

PRIVATE SECTOR IN EDUCATION

13. PRIVATE SECTOR IN EDUCATION

13.1 Conceptual Framework

13.1.1 After independence in 1947, physical and human resources in Pakistan were posing critical problems for the newly independent democratic society. Thus, radical reforms to develop physical and human resources were introduced for the socio-economic uplift of the nation. Education reforms revolved around the following three critical areas:

i. Internal transformation of the system to make it more relevant to the life, needs and aspirations of the newly created Islamic state;

ii. Qualitative improvement of education to respond to an expanding market economy;

iii. Quantitative expansion, based on the manpower needs, but of course with a direction on equalization of educational opportunities.

13.1.2 These reforms were a colossal task which could be accomplished if the large amount of financial, manpower and material resources were made available to the government. The government alone was not in a position to provide adequate financial and physical resources to undertake the restructuring of the education system and also its expansion to meet the demand of the society. Realizing the shortcomings of the government and strong belief among the policy makers that the people as beneficiaries will have to share the burden of expansion of education individually or collectively, reforms were introduced to generate resources from other sources such as new taxation, fee, donation. The system of grant-in-aid introduced before independence continued till 1972 for attracting the private sector to participate in provision of educational facilities to the citizens who were clamoring for more and better education for the children. Since expenditure on education is now being considered as an investment rather than consumption, there is a strong feeling among the public that private sector should participate actively to supplement the resources of the government for the development of human resources.

13.1.3 The private sector lacks the dynamism to act as a cooperative partner in the policy formulation, and often prefers to rely on the permanent crutches of state subsidies for their survival. A clear need exists for a more active private sector in Pakistan. There are already signs that the private sector can help to remove some of the bottlenecks hindering to the development of human resources. Private entrepreneurs have done well in providing high quality education to high income groups in urban areas, but there is an urgent need to extend these facilities to the poor and disadvantaged population. The participation of the private sector, NGOs and grassroots

movement in efforts to raise the level of human development in Pakistan is vital and the pursuit of these common goals is too important to be left to the state alone.

13.1.4 Recognizing that the government alone cannot achieve the policy objectives, it is imperative to seek volitional involvement of the private sector in the expansion of education. The National Education Commission 1959, Education Policy 1979, Sixth and Seventh Five Year Plans, and VISION 2010 strongly advocated the involvement of the private sector in the quantitative and qualitative improvement of education at all levels.

13.2 Present Status of Private Sector's Involvement in Education

13.2.1 Prior to 1972, privately-managed educational institutions constituted a sizeable portion of the total educational system. Most of these institutions operated at the school and college levels. Such institutions were administered and managed by voluntary organizations, and, apart from generating their own funds through fees, attached property and donations, the institutions also received grant-in-aid from the government. Some private educational institutions earned high reputation for the academic standards they maintained and for the quality of their public instruction. The government in 1972 decided to take over all the privately managed educational institutions. As a result 19,432 educational institutions were nationalized. These included 18,926 schools, 346 madrassas, 155 colleges and 5 technical institutions.

13.2.2 The National Policy of 1979, reviewed the consequences of nationalization and came to the conclusion that in view of poor participation rates at all levels of education, the government alone could not carry the burden of the whole educational process. It was, therefore, considered necessary to encourage once again the participation of the community in educational development. To do so, the following policy measures were proposed:

i. Private enterprise will be encouraged to open educational institutions particularly in rural areas.

ii. Permission to set up educational institutions will be granted by the Ministry of Education or the respective Provincial Education Departments. Criteria for according permission to set up new educational institutions and their recognition will be developed to ensure academic standards and provision of qualified staff and their terms and conditions of service and adequate physical facilities.

iii. The existing legislation on nationalization of privately-managed educational institutions will be suitably amended to allow opening of private educational institutions and to ensure that such institutions set up with the permission of government will not be nationalized in future.

Regular instructional supervision of these institutions will be undertaken by the education departments and relevant statutory bodies.

iv. Income tax relief will be allowed to the individuals and the organizations for their donations to these schools.

13.2.4 In pursuance of this policy, the Punjab Private Educational Institutions (Promotion and Regulation), an Ordinance No.II of 1984 was passed in 1984. Similar Ordinances were adopted by the Government of NWFP and Sindh. The Ordinances provide for the registration of all private institutions with Registration Authority to be established, the constitution of a managing body for each institution, and spells out the conditions for registration. Under these conditions, the government approval was considered mandatory for the adoption of fee structure by each private institution.

13.2.5 As a consequence of the promulgation of these ordinances in provinces, a second wave of community participation in education had been energized. It is estimated that more or less 30,000 private educational institutions at all levels with approximately 3 million students are functioning in the country. Most of these institutions are "English medium" schools and impart education from play group to postgraduate level. Some schools have been established on community basis, while the others are owned by individuals. The concentration of these schools is in urban areas. Heavy fees are charged by these schools. Neither in the past, nor in the recent current of privatization, investment was made by the private sector in higher education. However, an interesting feature of the recent activity is the establishment of five universities, viz; The Aga Khan Health Sciences University, Karachi; Hamdard University, Karachi; Sir Syed University of Engineering and Technology, Karachi; Baqai University, Karachi; and the University of Management Sciences at Lahore and Al-Khair University, Islamabad.

13.3 Issues in Private Managed Institutions

13.1.1 The revival of privatization is considered a useful activity for the much needed expansion of school education. Generally, the participation of the community in educational development is viewed favourably as "burden sharing" with the government, since development in the private sector are supplementary to the government development plans. Mostly, there has been a mushroom emergence of these institutions. The regulatory control over these institutions, though available in the provinces, could not settle a number of issues. Though private sector role in the expansion of educational facilities, is generally welcomed, there are a number of issues which need to be addressed:

i. The issue of fees has been the subject of severe criticism by the society. These institutions, whatever their medium of instruction, are not developing as institutions of equal opportunity. The access of poor

talented students to these institutions remains evasive because of the high fees charged. There is nothing in the Provincial Ordinance which may prevent the private schools from charging high fees. It is also important to consider that in the absence of grant-in-aid from the government, fees remain the only major source of income. Moreover, it is argued that most of the institutions are being established with a profit motive.

ii. Much of the attraction of those schools, at the primary and the post primary level resides in the important feature that these are "English Medium" schools. As a policy measure, the Urdu medium was adopted uniformly for all schools in 1979. It was hoped that the Matriculation examination of 1989 will be held on the basis of Urdu as medium of instruction. Unfortunately, a mid-stream turn about took place and when the Urdu medium batch reached class-VIII the uniformity was broken, and permission was granted for the use of English as a medium of instruction for science subject and mathematics. The appearance of private "English Medium" schools in the private sector, has perhaps, partly contributed to this vacillating attitude. There was no bar on the private schools preparing students for 'O' and 'A' Level examinations through English medium. However, their lobby which affected our own scheme of studies, merits a debate on the subject.

iii. It is argued that because of immense resource requirement, it is difficult for the government to achieve the objective of universalization of primary education. Accordingly, the opening of primary schools in the private sector is considered additionality to the effort of the government towards universalization. This is not a legitimate argument. The participation rates being already higher in urban settlements, it is in the rural areas that more schools are needed. The type of clientele going to these schools would any way participate in education. Thus, their role in universalization remains only marginal. Furthermore, because of the use of English as a medium of instruction, and high fee structure, these institutions are better suited to serve the requirement of elite population. Such a development is contradicted if effort is to be directed towards the development of an egalitarian society.

iv. Curriculum and the scheme of studies are prepared by the Ministry of Education in order to ensure the maintenance of standards and to keep a watch so that materials repugnant to the ideology of Pakistan are not included in the texts produced. There are complaints that some private institutions are prescribing books which contain unsatisfactory materials. The private institutions, therefore, should also be controlled through the application of the Curriculum Act.

13.4 Policy Objectives

13.4.1 Strengthening the delivery of education services through greater NGO and private sector involvement.

13.4.2 Accelerating the human resource development of the country through partnership among NGO, private and government sectors.

13.4.3 Restructuring and re-organizing the National and Provincial Education Foundations in their targeting and resource mechanism in support of low fee private sector and NGO initiative in needy areas.

13.5 Policy Provisions/Implementation Strategy

13.5.1 There shall be regulatory bodies at the national level to regulate activities and smooth functioning of privately-managed schools and institutions of higher education through proper rules and regulations to be framed by the regulating body. Similar bodies shall be established in the provinces.

13.5.2 A reasonable tax rebate shall be granted on the expenditure incurred on the setting up of educational facilities by the private sector.

13.5.3 Grants -in-aid for specific purposes shall be provided to private institutions; setting up of private technical institutions shall be encouraged.

13.5.4 Matching grants shall be provided for establishing educational institutions by the private sector in the rural areas or poor urban areas through Education Foundations.

13.5.5 Existing institutions of higher learning shall be allowed to negotiate for financial assistance with donor agencies in collaboration with the Ministry of Education.

13.5.6 Educational institutions to be set up in the private sector shall be provided (a) plots in residential schemes on reserve prices, and (b) rebate on income tax, like industry.

13.5.7 In rural areas, schools shall be established through public-private partnership scheme. The land for the school shall be given free of cost. The government shall not only provide free land to build the school but shall also bear 1/3 of the school construction and management cost.

13.5.8 Companies, with a paid-up capital of Rs.100 million or more, shall be required under the law to establish and run educational institutions upto secondary level with funds provided by them.

13.5.9 Liberal loan facility shall be provided to private educational institutions by financial institutions.

13.5.10 The private sector institutions at all levels shall be allowed to collaborate with international institutions of repute for achieving common academic objectives, subject to laws to be framed in this context.

13.5.11 Schools running on non-profit, no-gain basis shall be exempted from all taxes.

13.5.12 Privately-managed institutions shall be bound under law to admit free of charge, at least 10% of the intelligent students belonging to the low income groups.

13.5.13 Curriculum used by private institutions must conform to the principles laid down in the Curriculum Act.

13.5.14 The fee structure shall be developed in consultation with the government.

13.5.15 Government admission policy shall be enforced in private institutions.

13.5.16 Selective denationalization of nationalized institutions shall be initiated.

13.5.17 Law pertaining to setting up degree-awarding higher educational institutions and specialized institutes, shall be liberalized. The institutions so established shall be placed under the University Grants Commission for monitoring the academic programme and award of degrees.

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CHAPTER

INNOVATIVE PROGRAMMES

14. INNOVATIVE PROGRAMMES

Various levels of education have been discussed in the previous chapters and a number of Policy provisions identified. This chapter specifically describes some of the programmes innovative in nature that have been repeatedly endorsed by a great majority of persons who tendered suggestions for the formulation of Policy recommendations. These programmes relate to important facets of education and pertain to important features of educational development, such as, equity, character building, self reliance, improvement in the quality of educational standards and implementation. Though these programmes are described in the policy, yet these are grouped together for ready reference as under:

1. Political Commitment
2. Implementation, Monitoring and Evaluation Mechanism
3. Incentive scheme for Primary School Teachers
4. Education Card
5. National Education Testing Service
6. Utilization of Pakistani Talent Abroad
7. New Stream of Technical Education at School Level (Matric Tech)

14.1 Political Commitment

14.1.1 The political commitment at the higher level is a unique feature of this policy. The policy has basically originated from the Prime Minister's ardent desire to retrieve Pakistan from the present status of a back-bencher in the comity of nations and bring it to the front line of the international fraternity in the realm of development in the social sector, particularly in the field of education.

14.1.2 Thus, to restore its proper place, keeping in view the size of its of population, availability of resources, quality of manpower and constant economic growth graph of 5-6% over decades, the Prime Minister while launching the draft Policy on 21st February 1998, in National Education Convention, declared education as his first priority and committed to achieve its fuller implementation.

14.1.3 Besides, for the first time political chiefs at the provincial level have actively been involved in implementation and monitoring of the policy in an institutionalized form which is a commitment in perpetuity. Moreover, it is also envisaged that the President, Prime Minister, Chief Ministers and Ministers during their official tours will invariably visit educational institutions, specially primary schools so as to impress upon every one that education is the key concern of the Government.

14.2 Implementation, Monitoring and Evaluation

4.2.1 The development of educational facilities both to expand access as well as to improve quality, has remained at low ebb, despite repeated pronouncements, in seven education policies and eight Five-Years Development Plans. Along with a number of other features, such low political commitment, low funding, poor implementation machinery, the key factor has been the peripheral existence of monitoring and evaluation, mechanism, bordering almost on non existence. Despite major increase in financial allocation to education since 5th plan, the utilization rate remained around 50% except 7th plan, and the achievement of physical targets was still lower because of delayed start of planned programmes, slow implementation, delayed releases and poor financial and physical monitoring leading to cost over-run and consequently poor dividend to the nation.

14.2.2 In the wake of this background, a multi-tier monitoring mechanism has been proposed in the policy and constitutes its essential ingredient. The monitoring mechanism has the following key distinctive features:

i. A National Council for Education Development is proposed at the national level, which will be chaired by the Prime Minister. At provincial level, such bodies will be headed by the Chief Ministers and at district level by an eminent citizen.

ii. The monitoring tiers are representative of key stake-holders in the process of implementation.

iii. A time frame is provided for all the tiers to meet regularly and review the progress and is thus more definitive in this respect, whereas in other policies it was either non-existent or loose ended.

iv. The monitoring frame work is comprehensive and covers all the tiers of society, starting from the national level and goes down to the village level. Besides it dwells on a stronger cohesion and prompt interaction of federal and provincial authorities far more frequently, than ever envisaged before.

14.2.3 Keeping in view the composition of the monitoring framework, fixed schedule of its reviews and conscious of comprehensiveness of the profile, it is assured that implementation outcomes of this policy are far more prompt and efficient and extensively pervasive, which in fact is a genuine response to meet long standing vacuum and a perennial challenge to the nation.

14.3 Incentive Scheme for Primary/Elementary School Teachers

14.3.1 Empirical studies have shown that primary education yields higher social and economic returns as compared to secondary and higher level of education. Governments in the past have tried to expand primary education by establishing primary schools, but its qualitative improvement pre-requisite for social and economic progress of the country has been ignored. The neglect of qualitative aspect is the main cause of apathy among students leading to high drop out and repetition resulting into wastage of scarce resources.

14.3.2 There is a widespread opinion that the standard of education is falling. A variety of schemes and models were introduced in the past under the label of educational reforms but without much success. The reason of these repeated failures was that the Primary School Teacher, the central element of system of education was not fully involved to improve the quality of education. At this historic juncture, on the threshold of the 21st Century, it is imperative to gear up the latent potential of primary school teachers and channelize their energies in proper direction for national development. Besides being low paid, the status of primary school teachers is not duly recognized and acknowledged in the society. As primary education makes the foundation of education system, the teacher likewise, is the focal point in the teaching-learning process. She/he is the nucleus around which the whole system of education revolves. No education programme can achieve its targets unless backed by devoted and dedicated teachers.

14.3.3 The government has accorded high priority to quality education. It recognizes the importance of the teachers who play pivotal role in promoting and expanding education in the country. To recognize and acknowledge their meritorious services and also to encourage them, an incentive scheme for primary school teachers shall be launched throughout Pakistan starting from grassroots level. Under this scheme, conference of primary school teachers will be organized every year at district, division, and national level where the teachers will be awarded merit certificates and cash prizes. They will, also, be provided a forum to discuss issues confronting the primary education in the country and suggest radical measures to overcome them. Under the scheme, primary school teachers from the educational institutions, both rural and urban, adjudged the best on the basis of results of class-V examination from every district/division, would be invited to attend the Primary School Teachers' Conference. This annual exercise would not only encourage the teachers, but also enable the planners and policy makers to obtain useful and practical suggestions for the improvement of primary education. The objectives of this programme are listed below:

i. To enhance the status/prestige of primary school teachers in the society and to alleviate their confidence and motivational level;

ii. To identify the training and professional needs of primary school teachers with particular reference to multi-grade teaching;

iii. To provide a common platform to teachers for an exchange of knowledge and experiences at district/division and national level;

iv. To identify and discuss the bottlenecks hampering promotion and expansion of primary education and solicit recommendations for improvement in the quality of primary education;

v. To identify defects in the instructional material which lead to learning difficulties among students; and

vi. To provide incentives to good teachers through healthy competition and replication.

14.3.4 Criteria for selection of teachers for participation in the conference(s)

i. Only those teachers shall be selected who have exhibited excellent performance in terms of earning maximum number of scholarships by their students in Class-V Examination during the academic year in their respective tehsil/district/division.

ii. In case, there is no scholarship examination in vogue in any province/area then, those teachers shall be nominated by the Education Department concerned who are adjudged most devoted and hardworking and have shown excellent results in Class-V examination in their respective tehsil/district/division. Under the scheme, series of conferences for primary school teachers will be organized at three different levels:

a District level

To provide incentives to primary school teachers working even in remote rural areas and to involve them in the process of promotion and expansion of primary education, district level conferences for primary school teachers will be held. Four primary school teachers/head teachers (two male and two female from urban/rural areas of each tehsil) will be invited to attend these conferences. The conferences will be organized by District Education Officer (male) in collaboration with DEO (female) in each district. The best teachers of each tehsil as per above referred criteria will be invited to participate in the conferences and deliberate on different issues and problems in the field of primary education and make suggestions for their solution. Public

representatives of National/Provincial Assemblies belonging to their respective areas will preside over these conferences.

b Divisional level

To provide broader canvas to primary school teachers, Teachers' Conferences at division level will also be organized at each divisional headquarter. Provincial Education Departments will be responsible for holding these conferences. Four best teachers (two male and two female rural/urban of each district) as per above referred criteria will be invited to attend these conferences.

c National level

i. For a broader spectrum, National Teachers' Conference will also be organized annually at Islamabad under the auspices of Federal Ministry for Education. Four best teachers (two male and two female from each division) will be invited at Islamabad to participate in the deliberations of the National Conference. President/Prime Minister of Pakistan will also be invited to chair the annual conference of primary school teachers.

ii. Merit certificates/cash awards will be given to the teachers. The best teacher at tehsil level will be awarded merit certificate and cash prize of Rs.500/-, while the best teacher at district and divisional level will be awarded merit certificate plus cash prize of Rs.1000/- and Rs.1500/- respectively.

14.4 Education Card

14.4.1 Despite Islamic injunctions which make the acquisition of knowledge obligatory for the Muslims, unfortunately our educational status as a nation is miserably disappointing. Our literacy rate is approximately 39%. About 25% of our children are not enrolled in primary schools and 50% of those enrolled, drop-out before completing primary schools. The participation rate at middle and high school level is 46% and 31% respectively. In literacy rate, the placement of Pakistan among the Muslim world is 31 out of 35 countries and globally 134 out of 180 countries. Nothing can be more depressing for an ideological Muslim state.

14.4.2 Poverty among the masses has been identified as one of the contributing factors to this dismal state of educational scenario. Many children do not enroll themselves because their parents cannot afford the expenditure of their education. Majority are

withdrawn from schools to join hands with their parents to earn living. Such children usually end up as labourers and ultimately add to illiterate unskilled labour force which in the long run neither helps the families of these children nor positively contributes to the economy.

14.4.3 Taking cognizance of this fact, an Education Card scheme will be launched. The main objectives of the scheme are:

i. Financial assistance to the deserving students who cannot afford to pay for their education.

ii. Incentive for the children who have not yet been enrolled in the formal school system for economic reasons.

iii. To decrease the dropout rate, specially at primary and middle school levels.

iv. To increase literacy rate in the long run.

v. Reduction in unemployment through promotion of technical and vocational education.

14.4.4 The ultimate objective of the Education Card scheme is to provide financial support to all poor students to pursue their education without difference of cast, creed, or political affiliations, merely on the basis of need and capability to pursue their studies. The underlying principle of Education Card scheme is two fold: firstly to improve the quality and accessibility to education for deserving and talented children, and second, to inculcate in them national spirit and patriotism.

14.4.5 The Scheme will be applicable to all the levels of education from primary to university, including professional education i.e. technical, vocational, agriculture, medicine, etc. Children of both genders from urban and rural areas will be eligible to get benefit from the scheme.

14.4.6 The estimate of cost, under the Education Card scheme, is based on moderate criterion to provide two sets of uniform/dress, a pair of shoes, books, stationery and fee allowance and a small stipend to meet other expenses. Per unit cost ranges from Rs.1700/- per annum at primary level to Rs.25000/- per annum for boarders of professional colleges/universities. Total expenditures on Education Card scheme works out approximately to Rs.4.0 billion per annum. The scheme will be administered by the Education Card Cells to be established at the provincial headquarters. The Education Card Cells shall operate through the District Education Authorities.

14.4.7 In order to meet the expenses of Education Card Scheme a number of sources shall be tapped. Some of the potential sources include Zakat Fund, Usher Fund, *Bait-ul-Maal*, Endowments to be created by the Federal and Provincial Governments, Iqra Surcharge funds and donations from the philanthropists. It will be ensured that their *self-respect* is not injured by the feeling of being nurtured on charity. Therefore, the beneficiary of the scheme will be required to repay part of their stipend money in easy installments after they are gainfully employed.

14.5 National Education Testing Service

14.5.1 In Education Policy 1992, Educational Testing Service was conceived for entry examinations in professional colleges and faculties of universities. This was necessitated due to rampant malpractices that have crept into the examination system particularly at higher secondary level. Accordingly, the Ministry of Education developed the notion of National Education Testing Service (NETS). The objective is to maintain uniformity of scores among various Examination Boards through scientifically validated tests and raise the standard of education.

14.5.2 The basic work on NETS started in 1993. To begin with, NETS has been located in the Institute of Business Administration (IBA), Karachi as the private sector did not come forward to shoulder the responsibility.

14.5.3 NETS has developed test items in physics, chemistry, mathematics, biology and English at Higher Secondary level. These have been prepared by experts and are curriculum-based which is being taught at present and encompass knowledge, comprehension and application of the subjects. The number of test items is 4500. These tests have been tried out at post F.Sc. level in Karachi and Islamabad. The validity is of the order of 90.95%.

14.5.4 The draft legislation for the establishment of NETS has been prepared and the Law Division has vetted it. Approval of Provincial Assemblies has also been obtained. The legislation has now been tabled in the National Assembly. The National Assembly Standing Committee on Education has recommended the bill for adoption.

14.5.5 Salient features of NETS are:

i. It will come into operation from the academic year 1998.

ii. It will be supervised by an independent Board of Governors, and shall have advisory, technical and expert committees.

iii. Failure to qualify NETS test will render a student ineligible for admission to a professional college.

iv. Any person leaking information in respect of tests, item bank or examination shall be punishable with imprisonment and fine.

14.6 Utilization of Pakistani Talent Abroad

14.6.1 A large number of Pakistanis are working as scientists and engineers in reputed educational and research institutions in the developed countries. These patriotic Pakistanis are eager to contribute to the development of Pakistan by contributing the long experience they have acquired abroad. They form a very valuable human resource that should be utilized by Pakistan for national development. UNDP has initiated a programme through which expatriate Pakistanis visit Pakistan and work in various institutions. However, due to limited scope of the scheme, the impact is negligible.

14.6.2 Considering the fact that Pakistani engineers and scientists hold key positions in major western universities and R&D institutions, a scheme shall be initiated through which such experts will be regularly invited to Pakistan for brief periods. They will be engaged in delivering lectures, conducting workshops in specific fields in the national interest and be involved in collaborative exchange programme at higher education.

14.6.3 Visits by such eminent scientists would not only be highly beneficial from an academic point of view but would also be cost effective. For example, 100 experts visiting Pakistan every year in various public and private universities will cost approximately Rs.170.0 million over a period of 5 years as per following details:

i.	Air-fares for 100 scientists per year for 5 years (500 visits over 5 year period) at Rs.60,000/- per airfare.	Rs. 30.0 Million
ii.	Living expenses in Pakistan on the pattern of the UNDP Tokten programme i.e. daily allowance at an average cost of US $ 100 per day, 60 days per visit, 500 visits during the plan period.	Rs. 140.0 Million
	TOTAL	Rs. 170.0 Million
		(Over 5 year period)

14.6.4 An added advantage of launching such a scheme will be in the form of close linkages between the university where the scientist is working abroad and the host universities in Pakistan which he/she will be visiting. Moreover, the scientist, by using his/her academic connection, will also be in a position to help students and counterpart teachers to visit foreign universities and donate equipment at no cost to the Government of Pakistan.

14.7 New Stream of Technical Education at School Level Matric (Tech)

14.7.1 The demand for vocational education at secondary level is extremely essential as only 31% of the age group is enrolled at Matric level and there is major drop in continuation of further education at higher secondary intermediate level of education. Out of 31%, only 30-40% complete this level education. Thus more than 60% go as failures and only 11.4% of the age group register for higher secondary education.

14.7.2 In order to overcome this massive attrition rate, the quality and supervision at Matric level will be improved by better teachers, improved libraries, well equipped laboratories and trained management cadres. Besides, promoting creativity, initiative and the emphasis on general life-skills will also be emphasized. Simultaneously, to those, who will opt for vocational education so as to have an employable skill by the terminal level a new stream viz, Technical stream at Matric level will be introduced apart from the existing science, arts steams. Registration will be optional. It will ensure that the students in this stream acquire specific vocational skill which facilitates self-employment, public employment as well as enable them to get seed grant/small loan for self enterprise. Besides, such students will be preferred in their entry into polytechnics.

14.7.3 In implementing this programme, all necessary precautions, such as trained teachers, relevant textbooks, good laboratories/workshops, project oriented approach etc. will be adopted, apart from the fact that this stage will be examinable and determine eligibility for higher technical stream.

15

CHAPTER

IMPLEMENTATION MONITORING AND EVALUATION

15. IMPLEMENTATION, MONITORING AND EVALUATION

15.1 Conceptual Framework

15.1.1.The education system has been the target of experimentation in the form of a number of major reforms and policy packages during the last 50 years. None of these reforms could, however, produce encouraging results. Factors responsible for inadequate performance of these policy reforms include poor implementation as the major reason. Whatever planned, was neither carried out effectively nor monitored properly.

15.1.2 Against the backdrop of 50 years, the prime cause of failure of these policies was weak and defective implementation mechanism, delinked with proper supportive back-stopping, inadequate personnel, poor training, low political commitment and absence of incentives. The net outcome in financial terms has been the cost over-runs, delays in accomplishment and poor return to the nation. Resultantly, the literacy rate in Pakistan, despite efforts spread over 50 years, is only 38.9%, which in the rural areas among females in some provinces is, as low as 2%. The participation rate at primary level is only 74.8% with female participation at 63%. In rural areas the participation rate is far less than that at the national level. The profile of secondary, technical, vocational and science education is also dismal as that of basic education. In higher education, universities have remained only as teaching institutions, devoid of research and application. It is not only that number of universities in Pakistan is small, but their contribution towards the development of critical manpower which is the essential requirement for economic breakthrough, as well as, social progress of the country, is also extremely limited. For research and development in the universities, the facilities are meager which have stunted the proper intellectual growth and the consequent pay-off to the nation in tangible terms. Parallel to other service groups, an Education Service Cadre (ESC) is also essential due to professionalization of the system. It will help in attracting talented individual into ESC, allow mobility of specialists both vertically and horizontally.

15.1.3 Within this context the following objectives have been identified to undertake vigorous implementation, effective monitoring and scientific evaluation so as to ensure success of the Policy.

15.2 Objectives

i. To enhance and improve the delivery of educational services.

ii. To identify indicators for different components of policy, in terms of quality and quantity.

iii. To determine the acceptable and unacceptable ranges for behaviour and variation of these indicators.

iv. To institutionalize the process of monitoring and evaluation at the lowest and highest level.

v. To make provision for adopting corrective measures during the process of implementation.

15.3 Policy provisions

15.3.1 The following framework for implementation, monitoring and evaluation of the policy has been proposed:

i. To establish Pakistan Education Service Cadre.

ii. National Council for Educational Development to be chaired by the Prime Minister.

iii. Policy Implementation Committee to be chaired by the Federal Minister for Education.

iv. Provincial Councils for Educational Development to be chaired by the Chief Ministers of the Provinces.

v. Provincial Policy Implementation Committees to be chaired by Provincial Education Ministers.

vi. District Education Authorities to be chaired by persons nominated by the provincial governments.

vii. School Management Committee at the village level.

15.3.2 National Council for Educational Development

This Council will be chaired by the Prime Minister and will meet every quarter, to review implementation, monitoring and evaluation outcomes of the National Education Policy provisions. The composition of the Committee is at annexure-I. The council will have sub-committees relating to broad areas of education and will be provided with valid information/feedback by the Academy of Educational Planning and Management (AEPAM) through the Education Management Information System (EMIS) and qualitative studies. The Council will *inter alia* consider recommendations

for formulating strategic measures and develop framework to improve the situation and ensure achievement of targets every quarter.

15.3.3 Implementation Committee under Chairmanship of the Federal Minister for Education

This Committee will meet every second month under the chairmanship of Education Minister and will conduct detailed policy implementation review, as the prime source to feed the National Council on Educational Development. The composition of the Committee is at annexure-I. This Committee will also be provided all the relevant information and feedback through AEPAM which will be directly linked with all the provinces as well as District headquarters. The review will inter alia include, achievement of physical targets, financial utilization and qualitative aspects etc.

15.3.4 Provincial Council on Educational Development

This Council will be chaired by the Chief Minister of the province and will include representatives of Planning, Finance, three prominent educationists and the Education Secretary as the member-Secretary. The Committee will meet every quarter and will serve as precursor to the National Council on Educational Development. It will undertake comprehensive review of quarterly targets envisaged under the Policy including, both the physical and qualitative aspects.

15.3.5 Provincial Policy Implementation Committee

This Committee will be chaired by the Minister for Education, and will have senior representatives of Finance, Planning, Chairman of the Assembly Standing Committee on Education, to which Education Secretary will serve as Member Secretary. This body will meet every two months, and review in detail policy implementation, its physical targets, financial targets, quality aspect, manpower development and other critical issues. The Committee will provide feedback to the Provincial Council on Educational Development.

15.3.6 District Education Authority

A District Education Authority will be set up in each district throughout Pakistan. The Authority will be chaired by the nominee of the Provincial Govt. It will meet regularly to review implementation of the Policy at the District level. It will be assisted by EMIS set-up at the District Headquarter. Those Districts, which yet do not have such facility will be provided the same in the first quarter after announcement of the Policy. The major field work will be undertaken by the DEOs male and female at the district level. The authority will be responsible for the following:

- Identification of school sites
- Construction and maintenance of school buildings
- Community mobilization
- Appointment, posting and transfer of school teachers
- Generating financial resources for literacy and education development.

15.3.7 **School Management Committee at the Village Level**

At the village level the chairman of the School Management Committee, who will be an elected person shall constantly review educational development in the area of his/her jurisdiction and ensure implementation of key policy provisions. S/he will also remain in constant touch with education authorities of the area and serve as key supplier of information through supervisor as well as the Assistant District Education Officer. Composition at Annexure-I.

15.3.8. Existing EMIS at Federal and Provincial levels shall be strengthened to make them responsive to the need of Monitoring and Evaluation System(MES).

15.3.9 Academy of Educational Planning and Management (AEPAM) shall be strengthened and tuned up to meet the emerging demands of MES and its obligations at national and provincial levels.

15.3.10 Data collected through Provincial EMISs and collated by AEPAM through National Education Management Information System (NEMIS) shall be recognized as one source for planning, management, monitoring, and evaluation purposes to avoid disparities and confusion.

15.3.11 Databases of critical indicators on qualitative aspects of educational growth shall be developed and maintained by AEPAM for developing sustainable indicators of progress, based on more reliable and valid data to facilitate planning, implementation and follow-up.

15.3.12 Geographical Information Systems (GIS), developed by NWFP and Balochistan shall be popularized and introduced for strengthening spatial planning and MES in other Provinces.

15.3.13 To complete educational statistics of all educational institutions in the country, a legislation shall be passed to require all Private Educational Institutions to supply school data to their respective EMIS centers.

15.3.14 A date, as School Census Day shall be fixed for collecting data on one day from all over the country.

15.3.15 Awareness campaigns shall be launched for educational monitoring data and the role of schools and community.

ANNEX I

NATIONAL COUNCIL FOR EDUCATION DEVELOPMENT

1.	Prime Minister	Chairperson
2.	Federal Minister for Education	Member / Vice Chairman
3.	Federal Minister for Finance	Member
4.	Deputy. Chairman P&D Div.	Member
5.	All Provincial Education Ministers	Members
6.	Chairman Standing Committee on Education, Senate	Member
7.	Chairman, Standing Committee on Education, National Assembly	Member
8.	Chief Co-ordinator Vision 2010	Member
9.	Three Eminent Educationists and Scientists	Members
10.	Federal Education Secretary	Member / Secretary

FEDERAL MONITORING AND EVALUATION COMMITTEE

1.	Federal Minister for Education	Chairperson
2.	Federal Finance Minister/Secretary Finance	Member
3.	Dy. Chairman, P & D/Planning Secretary	Member
4.	Provincial Education Ministers/Secretaries	Member
5.	Three Eminent Educationists and Scientists	Members
6.	Federal Education Secretary	Member
7.	D.G. AEPAM	Member / Secretary

PROVINCIAL COUNCIL ON EDUCATIONAL DEVELOPMENT

1.	Chief Minister	Chairman
2.	Minister for Education	Vice Chairman
3.	Minister for Finance	Member
4.	Chairman, P&D/ Additional Chief Secretary (Dev.)	Member
5.	Three eminent educationists	Members
6.	Education Secretary	Member / Secretary

PROVINCIAL POLICY IMPLEMENTATION COMMITTEE

1.	Minister for Education	Chairman
2.	Minister for Finance/Secretary	Member
3.	Chairman, Dev. Board on ACS Dev./Rep	Member
4.	Chairman Standing Committee on Education of the Assembly	Member
5.	Education Secretary	Member/Secretary

DISTRICT EDUCATION AUTHORITY

1.	Nominee of the respective Provincial Government	Chairperson
2.	Chairman District Council	Member
3.	Representative of EMIS	Member
4.	Chairmen of one Town & One Municipal Committee	Member
5.	Two Eminent Retired or Working Educationists	Member
6.	One Representative each of NGO/CBO:	Member
7.	DEO (Male & Female)	Member Secretary

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CHAPTER

FINANCIAL OUTLAY

16. FINANCIAL OUTLAY

16.1 Financial constraints have all along been a major issue in the development of education in Pakistan. Conversely, the argument that even the meager resources provided to education have not been adequately utilized, is also true. The vast coverage of the Education Sector, involving almost 200,000 educational institutions with about 3-4 times the number of teachers and staff spread over vast geographical areas, involves complexity of problems which are unmatched by any other Social Sector.

16.2 Inadequacy of financial resources aggravated by poor implementation machinery necessitates immediate and effective steps to salvage the twin problems of finances and management. Accordingly, the physical targets proposed in the policy have been modest and aligned, to a great extent, with the physical targets and financial expenditure envisaged in the Ninth Five Year Plan.

16.3 In brief, an amount of Rs.64,020 million representing Rs.7,870 million as development and Rs.56,156 million for recurring, is provided for education during 1997-98. This represents 2.2% of GDP which is very meager compared to other Asian countries, as indicated in the following Table:

Country	%
Mongolia	8.5
Maldives	8.1
Iran	5.4
Malaysia	5.1
South Korea	4.2
Thailand	4.0
India	3.7
Sri Lanka	3.1
Nepal	2.9
Afghanistan	2.3
Bangladesh	2.3
PAKISTAN	2.2

Source:- E-9 Conference on Education for All 1997

16.4 The Policy proposes an allocation of Rs.709,288 million for the improvement and expansion of education during the next five years. This also includes an amount of Rs.150,000 million which will be generated through private sector. This augments well with the overall policy of the government to assign high priority to education and fulfill

the national and international commitments which the government has made with its masses and international organizations.

16.5 While allocating the overall resources, an attempt has been made to restrict the development expenditure to Rs.141,858 million, out of which almost 20% is expected to be generated through the involvement of private sector. While the government is committed to create an egalitarian society by providing `Basic Education to all' shall continue to finance this level of education in a major way through Social Action Programme, the remaining sub-sectors like secondary education, technical and vocational education and tertiary education are expected to invite private sector financing through liberal investment policy initiative of the government.

16.6 An analysis of various five year plans from 1955 onwards reveals the following facts.

i Allocation of funds for education has been incongruent with the Plan provisions.

ii The utilization in Primary Sector has been dismally low compared to other sub-sectors.

iii Utilization of funds for university sub-sector has favourably matched with the Plan allocations.

iv Utilization of funds has been the highest during the Non Plan Period (1970-78).

16.7 Taking a cue from the above analysis, it has been proposed in the Policy that funds for Primary Education which yields maximum rate of return, should not be diverted to other sub sectors. Similarly, the experience of non-plan period during which the funds were provided on year to year basis exhibited maximum utilization needs to be adopted as an effective implementation strategy. Indeed, this approach involving annual operational plan in Social Action Programme during its first phase, has also worked fairly well to organize work programme of education development.

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CHAPTER

APPENDICES

EDUCATION STATISTICS

1996-1997 TO 2003 & 2010

APPENDICES

Appendix 'A'

PHYSICAL AND FINANCIAL TARGETS
1996-97 To 2003 & 2010

	1996-97 Actual	1997-98 Estimated	1998-99	1999-2000	2000-2001	2001-2002	2002-2003 Target	2010 Target
1. Literacy (Percentage)								
Male	50.00	52.00	55.60	59.20	62.80	66.40	**70.00**	**85.00**
Female	25.00	27.00	29.60	32.20	34.80	37.40	**40.00**	**55.00**
Total	38.90	40.00	43.00	46.00	49.00	52.00	**55.00**	**70.00**
2. Primary (5 - 9) Yrs.								
a. Population (000)								
Male	9839.00	10252.00	10518.40	10784.80	11051.20	11317.60	**11584.00**	**13196.00**
Female	9384.00	9712.00	9946.40	10180.80	10415.20	10649.60	**10884.00**	**11337.00**
Total	19223.00	19964.00	20464.80	20965.60	21466.40	21967.20	**22468.00**	**24533.00**
b. Enrolment (I-V) Classes (000)								
Male	8324.00	9250.00	9707.00	10164.00	10621.00	11078.00	**11535.00**	**14500.00**
Female	5400.00	5800.00	6372.80	6945.60	7518.40	8091.20	**8664.00**	**11300.00**
Total	13724.00	15050.00	16080.00	17110.00	18140.00	19170.00	**20200.00**	**25800.00**
c. Participation Rate(%)								
Male	84.60	90.23	92.29	94.24	96.11	97.88	**100.00**	**110.00**
Female	57.54	59.72	64.07	68.22	72.19	75.98	**80.00**	**100.00**
Total	71.39	75.39	78.57	81.61	84.50	87.27	**90.00**	**105.00**
No. of Schools (000)	145.00	150.00	152.00	155.00	157.20	159.60	**162.00**	**190.00**
No. of Teachers (000)								
Male	221.90	220.50	218.50	216.30	213.40	209.90	**205.70**	**301.00**
Female	117.60	125.80	134.70	144.00	154.10	164.90	**176.50**	**138.00**
Total	339.50	346.30	353.20	360.30	367.50	374.80	**382.20**	**439.00**

Source: 1. Planning and Development Division (Education section).
2. Economic Survey, 1996-97
3. Federal Education Management Information System, AEPAM Islamabad

Appendix 'B'

	1996-97 Actual	1997-98 Estimated	1998-99	1999-2000	2000-2001	2001-2002	2002-2003 Target	2010 Target
3. Middle (10 - 12) Yrs.								
a. Population (000)								
Male	4783.00	4896.00	5115.40	5334.80	5554.20	5773.60	**5993.00**	**7075.00**
Female	4720.00	4832.00	5010.20	5188.40	5366.60	5544.80	**5723.00**	**6661.00**
Total	9503.00	9728.00	10125.60	10523.20	10920.80	11318.40	**11716.00**	**13736.00**
b. Enrolment Classes (VI-VIII) (000)								
Male	2700.00	3050.00	3394.00	3738.00	4082.00	4426.00	**4770.00**	**7050.00**
Female	1650.00	1740.00	1960.00	2180.00	2400.00	2620.00	**2840.00**	**4650.00**
Total	4350.00	4790.00	5354.00	5918.00	6482.00	7046.00	**7610.00**	**11700.00**
c. Participation Rate(%)								
Male	56.45	62.30	66.35	70.07	73.49	76.66	**80.00**	**100.00**
Female	34.96	36.01	39.12	42.02	44.72	47.25	**50.00**	**70.00**
Total	45.78	49.24	52.88	56.24	59.35	62.25	**65.00**	**85.00**
No. of Schools (000)	14.60	15.90	18.80	21.60	24.40	27.20	**30.00**	**60.00**
No. of Teachers (000)								
Male	57.10	60.80	69.80	78.80	87.80	96.80	**105.80**	**195.80**
Female	38.70	40.00	46.00	52.00	58.00	64.00	**70.00**	**130.00**
Total	95.80	100.80	115.80	130.80	145.80	160.80	**175.80**	**325.80**
4. High (13 - 14) Yrs.								
a. Population (000)								
Male	3189.00	3264.00	3410.40	3556.80	3703.20	3849.60	**3996.00**	**4799.00**
Female	3147.00	3222.00	3340.60	3459.20	3577.80	3696.40	**3815.00**	**4517.00**
Total	6336.00	6486.00	6751.00	7016.00	7281.00	7546.00	**7811.00**	**9316.00**
b. Enrolment Classes (IX-X) (000)								
Male	1270.00	1300.00	1516.00	1732.00	1948.00	2164.00	**2380.00**	**3820.00**
Female	680.00	750.00	867.00	984.00	1101.00	1218.00	**1335.00**	**2690.00**
Total	1950.00	2050.00	2383.00	2716.00	3049.00	3382.00	**3715.00**	**6510.00**
c. Participation Rate(%)								
Male	39.82	39.83	44.45	48.70	52.60	56.21	**59.56**	**80.00**
Female	21.61	23.28	25.95	28.45	30.77	32.95	**34.99**	**60.00**
Total	30.78	31.61	35.30	38.71	41.88	44.82	**47.56**	**70.00**
No. of Schools (000)	11.00	11.00	12.40	13.80	15.20	16.60	**18.00**	**30.00**
No. of Teachers (000)								
Male	111.00	111.00	118.70	125.80	133.90	141.10	**149.00**	**248.00**
Female	49.50	49.70	53.00	57.00	60.00	64.00	**67.00**	**112.00**
Total	160.50	160.70	171.70	182.80	193.90	205.10	**216.00**	**360.00**

Source: 1. Planning and Development Division (Education section).
2. Economic Survey, 1996-97
3. Federal Education Management Information System, AEPAM Islamabad

Appendix ' C'

	1996-97 Actual	1997-98 Estimated	1998-99	1999-2000	2000-2001	2001-2002	2002-2003 Target	2010 Target
5. Higher Sec. (15 - 16) Yrs.								
a. Population (000)	5470.00	5705.00	5860.40	6015.80	6171.20	6326.60	**6482.00**	**8170.00**
b. Enrolment (000) (XI-XII) Classes	600.00	650.00	690.00	730.00	770.00	810.00	**850.00**	**1500.00**
c. Participation Rate(%)	11.00	11.40	11.80	12.10	12.50	12.80	**13.10**	**18.40**
No of Schools	350.00	350.00	410.00	470.00	530.00	590.00	**650.00**	**1100.00**
No of Teachers (000)	10.40	11.00	11.60	12.20	12.80	13.40	**14.00**	**21.00**
6. Sec. Vocational/Commercial								
a. Enrolment (000)	32.10	33.90	35.70	37.50	39.30	41.10	**43.00**	**56.60**
b. No. of Institutions	410.00	435.00	460.00	485.00	510.00	535.00	**560.00**	**715.00**
c. No. Of Teachers (000	3.30	3.50	3.70	3.90	3.90	4.10	**4.50**	**8.20**
7. Mono/Polytech.								
a. Enrolment (000)	42.12	45.40	48.70	52.10	55.40	58.70	**62.00**	**87.20**
b. No. of Institutions	84.00	94.00	102.20	110.00	119.00	127.00	**135.00**	**201.00**
c. No. Of Teachers (000	2.14	2.24	2.35	2.46	2.58	2.69	**2.80**	**3.90**
8. Degree Colleges (Arts & Science)								
a. Enrolment (000)	256.00	360.00	368.00	376.00	384.00	392.00	**400.00**	**650.00**
b. No. of Institutions	532.00	535.00	545.00	555.00	565.00	575.00	**585.00**	**700.00**
c. No. Of Teachers	20907.00	20970.00	21033.00	21096.00	21159.00	21223.00	**21286.00**	**21737.00**
9. Degree Colleges (Professional)								
a. Enrolment (000)	151.00	160.00	164.00	169.00	173.00	178.00	**182.00**	**200.00**
b. No. of Institutions	204.00	205.00	206.00	207.00	208.00	209.00	**210.00**	**250.00**
c. No. Of Teachers	6173.00	6296.00	6422.00	6551.00	6682.00	6815.00	**6952.00**	**7986.00**
10. Universities								
A. General (including degree awarding institutes)								
a. Enrolment (000)	72.00	73.00	78.00	84.00	89.20	94.60	**100.00**	**150.00**
b. No. of Institutions	42.00	42.00	43.00	44.00	45.00	45.00	**45.00**	**50.00**
B. Engineering								
a. Enrolment (000)	19.00	19.00	21.00	23.00	24.00	26.00	**28.00**	**50.00**
b. No. of Institutions	15.00	15.00	15.00	16.00	16.00	16.00	**17.00**	**20.00**
C. Agriculture								
a. Enrolment (000)	10.00	10.00	11.00	12.00	13.00	14.00	**15.00**	**25.00**
b. No. of Institutions	4.00	4.00	4.00	4.00	4.00	4.00	**4.00**	**4.00**

Source: 1. Planning and Development Division (Education section).
2. Economic Survey, 1996-97
3. Federal Education Management Information System, AEPAM Islamabad

Appendix 'D'

ALLOCATION FOR 1997-98

(Rs. In Million)

Sub-Sector	Allocation		
	Development	Recurring	Total
* Primary Education	5,197	29,103	34,300
Secondary Education	683	14,022	14,705
Teacher Education	152	474	626
Technical Education	355	1,193	1,548
College Education	448	4,799	5,247
University Education	426	2,492	2,918
Scholarships	237	13	250
Literacy & Non-Formal Education	88	3	91
Miscellaneous	285	4,053	4,338
Total	**7,872**	**56,152**	**64,024**

* Primary and Middle Education have been integrated into Elementary Education.

PROPOSED ALLOCATION FOR EDUCATION 1998-2003

(Rs. in Million)

Year	GDP	Growth %	EDUCATION BUDGET			% Share of GDP
			Development	Recurring	Total	
Actual Allocation						
1997-98	2,882,100.0		7,872.1	56,152.5	64,024.6	2.2
Proposed allocations						
1998-99	3,055,026.0	6.0	15,275.0	61,101.0	77,376.0	2.5
1999-00	3,238,328.0	6.0	18,199.0	72,798.0	90,997.0	2.8
2000-01	3,432,627.0	6.0	21,694.0	86,777.0	108,471.0	3.2
2001-02	3,638,585.0	6.0	25,834.0	103,336.0	129,170.0	3.6
2002-03	3,856,900.0	6.0	30,855.0	123,421.0	154,276.0	4.0
		Total	**111,858.0**	**447,432.0**	**559,289.0**	

Source: 1. Planning, Science & Technical Education (PSTE), Ministry of Education,
2. Federal Education Management Information System, AEPAM Islamabad

Appendix 'E'

DEVELOPMENT ALLOCATION FOR EDUCATION POLICY (1998-2003)

Sub-Sector \ Province	Punjab	Sindh	N.W.F.P.	Balochistan	Federal	Total Public	Private Sector	Total
Elementary Education	25,344	12,672	7,603	5,069	4,010	54,699	7,000	61,699
Secondary Education	15,779	7,890	4,734	3,156	2,081	33,640	15,500	49,140
Teacher Education	904	452	271	181	192	2,000		2,000
Technical Education	2,952	1,476	886	590	595	6,500	2,500	9,000
College Education	2,036	1,018	611	407	428	4,500	1,500	6,000
University Education	-	-	-	-	6,000	6,000	2,500	8,500
Scholarships	679	339	204	136	143	1,500	-	1,500
Literacy & Non-Formal Educat	-	-	-	-	1,000	1,000	-	1,000
Libraries & Text Books	181	91	54	36	38	400	-	400
Miscellaneous	553	276	166	111	313	1,419	1,000	2,419
Total	**48,429**	**24,214**	**14,529**	**9,886**	**14,800**	**111,658**	**30,000**	**141,658**
Other Federal Divisions					200	200		200
Total	**48,429**	**24,214**	**14,529**	**9,886**	**15,000**	**111,858**	**30,000**	**141,858**

RECURRING BUDGET FOR EDUCATION POLICY (1998-2003)

(Rs. In Million)

SUB-Sector\Province	Punjab	Sindh	N.W.F.P.	Balochistan	Federal	Total Public	Private Sector	Total
Elementary Education	101,377	50,689	30,413	20,275	16,042	218,796	28,000	246,796
Secondary Education	63,117	31,559	18,935	12,623	8,326	134,560	62,000	196,560
Teacher Education	3,616	1,808	1,085	723	768	8,000	-	8,000
Technical Education	11,809	5,905	3,543	2,362	2,382	26,000	10,000	36,000
College Education	8,145	4,073	2,444	1,629	1,710	18,000	6,000	24,000
University Education	-	-	-	-	24,000	24,000	10,000	34,000
Scholarships	2,715	1,358	815	543	570	6,000	-	6,000
Literacy & Non-Formal Educat	-	-	-	-	4,000	4,000	-	4,000
Libraries & Text Books	724	362	217	145	152	1,600	-	1,600
Miscellaneous	2,212	1,106	664	442	1,253	5,675	4,000	9,676
Total	**193,715**	**96,858**	**58,115**	**38,743**	**59,202**	**446,631**	**120,000**	**566,631**
Other Federal Divisions	-	-	-	-	800	800	-	800
Total	**193,715**	**96,858**	**58,115**	**38,743**	**60,002**	**447,431**	**120,000**	**567,431**

ALLOCATION FOR EDUCATION POLICY (1998-2003)

Total (Development + Recurring)

Sub--Sector\Province	Punjab	Sindh	NWFP	Balochistan	Federal	Total Public	Private Sector	Total
Elementary Education	126,721	63,361	38,016	25,344	20,052	273,495	35,000	308,495
Secondary Education	78,896	39,448	23,669	15,779	10,407	168,200	-	245,700
Teacher Education	4,520	2,260	1,356	904	960	10,000	-	10,000
Technical Education	14,762	7,381	4,428	2,952	2,977	32,500	12,500	45,000
College Education	10,181	5,091	3,054	2,036	2,138	22,500	7,500	30,000
University Education	-	-	-	-	30,000	30,000	12,500	42,500
Scholarships	3,394	1,697	1,018	679	713	7,500	-	7,500
Literacy & Non-Formal Educat	-	-	-	-	5,000	5,000	-	5,000
Libraries & Text Books	905	453	272	181	190	2,000	-	2,000
Miscellaneous	2,765	1,382	829	553	1,566	7,094	5,000	12,095
Total:	**242,144**	**121,072**	**72,643**	**48,429**	**74,002**	**558,288**	**150,000**	**708,288**
Other Federal Divisions	-	-	-	-	1,000	1,000	-	1,000
Total:	**242,144**	**121,072**	**72,643**	**48,429**	**75,002**	**559,288**	**150,000**	**709,288**

Source: 1. Planning, Science & Technical Education (PSTE), Ministry of Education,
2. Federal Education Management Information System, AEPAM, Islamabad

Appendix 'F'

STATEMENT OF IST TO 7TH PLAN ALLOCATION AND EXPENDITURE ON EDUCATION IN PAKISTAN

(RS. IN MILLION)

	1ST PLAN (1955-60)		2ND PLAN (1960-65)		3RD PLAN (1965-70)		NON PLAN PERIOD (1970-78)		5TH PLAN (1978-83)	
SUB-SECTOR	ALLOC.	EXPR.	ALLOC.	EXPR.	ALLOC.	EXPR.	ALLOC.	EXPR.	ALLOC.	EXPR.
PRIMARY EDUCATION:	51.4	21.2	78.0	18.8	67.51	24.74	473.93	443.76	3049.7	1413.1
SECONDARY EDUCATION:	68.1	44.0	96.4	95.3	294.183	124.5	502.52	541.55	3257.0	1090.1
TEACHER EDUCATION:	23.3	4.9	17.4	17.5	36.01	15.05	109.9	114.01	380.0	290.5
TECHNICAL EDUCATION:	-	-	-	-	-	-	-	-	-	-
COLLEGE EDUCATION:	31.8	29.5	17.0	68.3	64.04	64.16	314.81	374.02	767.0	536.8
UNIVERSITY EDUCATION:	48.5	36.5	47.5	58.9	91.95	59.69	334.05	398.78	725.0	687.0
SCHOLARSHIPS:	2.6	1.0	18.7	49.1	91.0	76.85	257.74	289.87	430.0	349.6
LITERACY & MASS EDUCATION	-	-	-	-	-	-	-	-	-	-
LIBRARIES & TEXTBOOK:	-	-	-	-	-	-	-	-	-	-
MISCELLANEOUS:	29.8	39.1	137.8	55.24	83.55	61.45	519.54	397.5	287.0	526.1
SUB-TOTAL:	255.5	176.2	412.8	363.14	728.24	426.44	2512.49	2559.49	8895.70	4892.8
OTHER DIVISIONS:	49.43	21.76	77.2	85.65	358.36	154.17	485.65	843.16	1802.3	750.7
TOTAL EDUCATION:	304.93	197.96	490.0	448.79	1086.6	580.61	2998.14	3402.65	10698.0	5643.5

(RS. IN MILLION)

	6TH PLAN (1983-88)		7TH PLAN (1988-93)		8TH PLAN (1993-98)		9TH PLAN (1998-2003)	
SUB-SECTOR	ALLOC.	EXPR.	ALLOC.	EXPR.	ALLOC.	EXPR.	ALLOC.	EXPR.
PRIMARY EDUCATION:	7000.0	3172.40	10128.0	6399.165	32669.0	23340.37	69,860	
SECONDARY EDUCATION:	4125.0	3231.02	6404.0	5507.312	16521.2	4930.358	33,140	
TEACHER EDUCATION:	305.0	156.75	287.0	260.256	3360.0	616.931	2,000	
TECHNICAL EDUCATION:	1315.0	857.95	2000.0	943.166	2447.0	2373.324	5,000	
COLLEGE EDUCATION:	1300.0	991.95	61500.0	1730.536	2507.5	2350.801	2,000	
UNIVERSITY EDUCATION:	2100.0	1629.70	1800.0	1890.8635	4100.0	1727.751	4,000	
SCHOLARSHIPS:	660.0	663.67	760.0	867.117	1400.0	1215.743	15,000	
LITERACY & MASS EDUCATION:	750.0	724.09	300.0	510.308	1750.0	409.164	1,000	
LIBRARIES & TEXTBOOK:	455.0	128.32	86.0	26.85	200.0	19.200	300	
MISCELLANEOUS:	570.0	3663.97	150.0	1216.438	3877.0	1217.853	1,000	
SUB-TOTAL:	18580.0	15219.81	22530.0	19345.983	68831.7	38201.495	119,800	
OTHER DIVISIONS:	250.0	1386.20	154.776	880.954	200.0	165.992	200	
TOTAL EDUCATION:	18830.0	16606.013	22684.78	20226.94	69031.70	38367.47	120,000	

Source: 1. Planning, Science & Technical Education (PSTE), Ministry of Education
2. Federal Education Management Information System, AEPAM, Islamabad