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NATIONAL EDUCATION POLICY
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MINISTRY OF EDUCATION
ISLAMABAD

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CONTEXT AND CONCEPTUAL FRAMEWORK

1. The Context

1.1 Policy initiatives for guiding educational reforms were proposed as early as 1947. More comprehensive documents on restructuring of education were those of 1959, 1972 and 1979. The reforms have appeared in four value areas: educational, social, economic and institutional. This has caused a ten-fold increase in educational facilities (Annexure-I). Yet, the limitation of financial resources, poor appreciation of educational priorities, inadequate delivery system, and population pressure, have never allowed a full expression of the desired change. As a social artefact, education so far, has not been able to assure good life for the individual and best arrangements for the society. Its ability to build human capital which could provide high rates of return to society has remained minimal.

1.2 The participation rates at various levels of education are low. The progress in the direction of universalization of primary education is far from satisfactory. At primary, the drop out rates are in the vicinity of 50%. The women participation in education is minimal. The Policy on the medium of instruction has vacillated. The quality of public instruction continues to deteriorate; the system has not responded to the inputs made. The curricula, apart from being overloaded, have not kept pace with the advancement of knowledge. So are the textbooks, which do not promote self-learning. The technical and vocational institutions are not dispersed equitably to enable the rural poor to benefit from these institutions. Nor has the vocationalization of education been pursued with the enthusiasm it deserved. The efficiency of higher education (general and professional) has dropped because of recurring problems of indiscipline. In this period of rapidly advancing knowledge and intense scientific and technological activity, the research base in the universities has remained narrow. The mass education and technical and

vocational education have failed to find an equilibrium of the type which could ensure the employability of the educated youth. The interface between society and education is resisting the diffusion of new ideas in either direction. The effective role of media for promoting education remains unprocessed. The silent culture of the rural poor, and the urban worker, are without a word; their children are being denied access to modern education. Much of social advancement has been hampered because the school has not been used as an agent for social change.

1.3 The conclusion is inescapable; a nation infected with development virus cannot afford to defer mass education. Nor should it deny all but marginal resources to the majority, and, more so, if a tiny minority is to enjoy the luxury of schooling that would still be regarded as pitifully inadequate by international standards. This malaise is to be corrected. At best, the past has produced an educational system in which more college and high school degrees are being awarded, but which means much less, both in terms of kind and content of learning, and in terms of job qualification and real income. Several data now confirm that expenditure on education does represent investment in human capital. It has been shown, for instance, in developing countries, that the rate of return (private and social) on human capital by and large, exceeds the rate of return on physical capital. The capital intensive nature of investment in developing human capital cannot be precluded.

1.4 These considerations, among others have prompted the Government to reshuffle the priorities, restate the policy, revise the strategy, and re-examine the fabric of education so as to make it compatible with the demands of prospective economic activity, and social, cultural and political development of an egalitarian Muslim society. In doing so, a series of educational conferences, were held in the provinces and AJK in which a very large number of educationists and educational administrators, from the primary to the university level participated. The provincial conferences addressed to five challenging areas in education; (a) primary education, (b)

quality of education, (c) discipline in educational institutions, (d) funding and resources generation; and (e) management of education. The scope was further expanded in the National Educational Conference which analysed the whole gamut of education in nineteen working groups, comprising renowned educationists drawn from each level of education. The problems identified, and the solutions presented at the conferences have been used to prepare the edifice of the present policy. The policy does not propose to start from the first milestone, nor does it propose to demolish the existing structures. The policy restates the objectives of education and proposes to introduce all pervasive reforms for increasing the efficiency of the system and for adjusting new educational, social, economic and institutional values. However, as an underpinning of educational philosophy, as related to the predominant Muslim Society of Pakistan, this policy propose to suck into its lap the pristine, the mundane and the modern after arranging relative educational priorities in a sequenced time frame. The target is the creation and implementation of educational programmes from which the nations of the Muslim Ummah can draw inspiration in their march towards the twenty first century.

2. Conceptual Framework of the New Policy

2.1 First, the purpose of education is to create a sizeable population of such educated men and women who could understand the world well enough and are able to bring about a change which may lead to adequate health and education services, a better environment, and wiping out of ignorance and deprivation - limitations, which continue to strangle the developing societies. Accordingly, this policy will place added emphasis on the education of the people, who are under privileged and who live in misery. They will not be required to achieve skills in reading, writing and arithmetic alone but would also be enabled to understand the factors which have historically contributed to their unsavory place in society. This is to be achieved through new school curricula and, equalization of educational opportunity. The achievement of this objective however will

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receive further support from the comprehensive commitment of the present Government for creating an egalitarian Muslim Society and for promotion of education, knowledge and merit, necessitating at the same time the removal of social and other barriers impeding the path of our children and youth. Essentially, by nurturing this philosophical approach shall we be able to cause the growth of an intellectually healthy Muslim Nation ready for meeting the challenges of the twenty first century.

2.2 Second, the sustainability of the educational process, sharpened on the hone of excellence, calls for increased and persistent professional inputs into the process. This is a difficult and most complicated area and yet of high importance. Quality does not find a niche in any one level of education. It must assert itself at all rungs of education; primary, secondary and tertiary. This dilemma, coupled with ever increasing number of students, presents difficult choices in the face of a restricted and limited flow of funds to the educational sector. If we are looking up to the next century, any plan that does not make room for student of eligible age groups to attend school will be detrimental. By the same token any plan which compromises quality will be equally, if not more detrimental. Being cognizant of this dilemma, the policy proceeds to delineate initiatives for a pragmatically targetted flow of students to the school system, and for asserting quality measures which hopefully will lift the system to a desirable level of excellence during its growth in the next 10 years. The raising of the collective ego of the nation through a facilitated, efficient and effective educational system remains the primary goal of this policy.

2.3 Third, a predominally muslim society, as is the case in Pakistan, and the determination of the Government to introduce Islamic order in society brings the educational system into sharp focus. The system of education cannot and should not be quarantined against the permeation of Islamic values. Perhaps,

it is the school system alone which can bring highest dividends in the making of an islamic, social, political economic and ethical order. However, several initiatives in the past, using the loose term "Islamization of Education", in an attempt to mould the system, have not yielded the desired results. The present policy perceives this issue as one of vital importance and proceeds to present a new strategy, enabling the students to imbibe the spirit of Islam and thus be able to appreciate the glory of Islam, and an understanding of the Holy Qu'ran. Thus making room for the application of principles which Islam preaches for the welfare of society, and for the progress of practicing Muslims.

2.4 Fourth, the teacher, who carries the major responsibility for implementing education policies is neither equipped nor motivated to bring about the required change. It is, therefore, of utmost importance that as reforms are introduced for widening the base of education and for improving curricula, textbooks and evaluation mechanisms, the motivation of the teacher is enhanced for participation in the teaching learning process. This could be done through a system of rewards, incentives, career opportunities, training facilities, and prominent status in society, yet subjecting them to a system of accountability through a process of performance evaluation. In the fall of the teacher has fallen the quality of public instruction. And, it is in his rise alone that the quality of education will rise to the expected heights. Accordingly, the policy provides guide lines for intimate association of teachers and scholars with the process of educational reconstruction. There is little hope of advancing the quality aspects of education unless the teacher finds and is given a place of honour and recognition in the society.

2.5 Fifth, Women education and raising the literacy ratios has been difficult area to tackle. Social, cultural and economic factors have put off the women participation rates. Different types of incentives are needed to educate them through formal system and through non-formal extensions. Raising the literacy

ratios is another equally challenging task. The modalities of non-formal education used so far have caused only marginal success. Whereas attack on illiteracy will continue, it is hoped that if the process of universal schooling is carried to completion, the problem of illiteracy will be considerably mitigated.

2.6 Sixth, the sharing of cost of education with the private sector has brought into focus the issues of the privatization of education. This policy proposes to encourage the participation of the private sector in educational development through liberal incentives, and to consolidate the gains already made in this regard. However, commercialization of education will be discouraged.

2.7 Seventh, financial constraints have not so far allowed free flow of funds to the higher education sector, which needs heavy investment, especially in areas of science and technology, if it is to develop good graduate study programmes and expand its capability for creating new knowledge. In order to cope with this situation, the universities, for example will have to find alternate sources of funding for academic programmes. The sub sector is heavily subsidized, and, therefore, amongst other means, the rationalization of user charges will be explored as an immediate area for reforms. There are a series of other reforms proposed for the universities which should lead the way to better management of university finances and university administration.

2.8 Eighth, our general education, in order to cause shift from supply oriented to job oriented study programmes, is in an urgent need of diversification. The attempts at vocationalization of secondary education have not been pursued with enthusiasm, nor have the desired results been achieved. Moreover, it seems necessary that general education at graduate and postgraduate levels is also diversified. The

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 economy has already started placing demands on the educational system for a different type of work force. Such a demand is likely to increase further as our economic growth proceeds in step with the development and use of new technologies. The policy addresses to this question more succinctly in the chapters on Technical and Vocational Education and Manpower Development.

2.9 To sum up, the educational reforms proposed in this policy are aimed at bringing a social change, as dictated by the teachings of Islam, universalising primary education, improving the quality of education, unleashing the energies of the nation for participation in nation building pursuits, inculcating high moral, ethical and civic values amongst students, raising the quality and diversifying the graduate and postgraduate study programmes, emphasising improvement in quality of research in new and economically productive fields, streamlining the management, monitoring and evaluation of educational programmes, shifting higher education from supply to demand oriented study programmes, creating an overall operational frame work which could stimulate improved quality by ensuring effective translation of agreed policies into concrete action at the level of educational institutions and improving the development and delivery of services at the institutional level, thereby attaining the ultimate goal of enhanced quality.

2.10 This should be possible if increase in the overall envelope of resources available to the sector is ensured. The table below indicates the cost of quantitative development and qualitative improvement of various sub-sectors of education during the next decade. This calls for a progressive increase of upto 5% of GNP allocation to education.

Table: Projected additional expenditure for educational development (1990 - 2000)

Sub-Sector	Cost (Billion Rs)	Implementing Agency
Primary, Literacy Universalization etc	50	Provinces
Elementary & Secondary	10	"
Technical & Vocational	10	"
Professional	10	"
Higher Education	15	Federal
Research (Universities)	10	Federal
Scholarship Training	5	Federal

TSTQ

Rs. 110 billion

* The additional costs for development and non-development will be linked with % of budgetary allocation for education to each province..

OBJECTIVES

- 2.1 To ensure the preservation, promotion and practice of the basic ideology of Pakistan and making Islam a code of individual and national life for the purpose of reformation of the society, its development and national cohesion.
- 2.2 To stimulate creative interest in the study of man and nature, and to build up and nurture the total personality of the individual so as to make it dynamic, creative, critical and capable of facing the truth as it emerges from the objective study of reality, and to enable the youth to earn an honourable living for themselves and contribute to the development of the country.
- 2.3 To mobilize the youth for national service through participation in programmes of social service and environmental improvement, to inculcate in them respect for the dignity of labour, and to develop in them a sense of beauty, grace and harmony.
- 2.4 To equalize access to education through provision of special facilities for (a) women, (b) poor, and, (c) mentally retarded and physically handicapped children and adults in all areas in general and the backward areas in particular.
- 2.5 To eradicate illiteracy within the shortest possible time through (a) universalization of primary education, and, (b) a massive adult education programme.
- 2.6 To redesign curricula relevant to the nation's changing social and economic needs and providing a massive shift from general education to more purposeful agro-technical, scientific and professional education.

2.7 To provide academic freedom and due autonomy to higher education institutions within the framework of national objectives and requirements.

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2.8 To ensure the active participation of teachers, students and representatives of parents and the community at large in educational affairs.

2.9 To promote the general welfare, dignity, status and sense of responsibility of teachers, and students and to encourage professionalism as well as ensure accountability of the academic community.

2.10 To create in people a capacity for self-learning and self-reliance so that their learning process continues throughout life.

2.11 To obviate ethnic prejudices, superstitions, discourage consumerism, fanaticism and sectarianism and to promote national cohesion.

2.12 To emphasize and promote research in higher educational institutions.

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CHAPTER - III
PRIMARY EDUCATION

3.1 Background

3.1.1 Universalization of primary education has remained a desired goal of successive policies and plans. Unfortunately, it has not been achieved. The limitations which have obstructed universalization, include; (a) low female participation rates (because of insecurity of girl students, and distance of homes from schools) (b) rapid increase in the population of 5-9 age group; (c) drop out rate of upto 50%, (d) lack of access to primary schools, (e) resource availability (f) school hours and (g) opportunity cost. The female participation rate varies from 8% in Baluchistan to 26% in the Punjab. In Sind only 33 children out of 100 complete the cycle of five years. In Baluchistan the drop out varies from district to district, being as high as 85% in some districts. In the NWFP, it is 60% for males and 75% for females. The factors affecting drop out are: Poverty, attitude of parents, illness, ignorance of parents, unattractive schools, poor quality of teachers, and irrelevance of curriculum, among others.

3.1.2 The present number of primary schools, including mosque schools stands at above 1,20,000 with an enrolment of above 9.00 million. By 1992, the population of 5-9 age group will rise to 18.7 million. To achieve UPE, additional places will be needed for 9.7 million students. This will require additional 95,693 schools (primary schools: 75,693; mosque schools: 20,000). Further, two room buildings would be needed for 29,000 shelterless schools and the 20,000 one room schools would also require improvement. The number of additional teachers and supervisory staff required for this task would be 1,51,386 for primary schools, 20,000 for mosque schools and 3,754 supervisors. More recurring costs may be contemplated for subsidy on learning materials and expansion of the administrative and management machinery for primary education.

3.2 POLICY STATEMENT

3.2.1 Primary education shall be recognized as a basic fundamental right of every Pakistani child. Primary education shall be made compulsory and free to achieve universal enrolment by the end of the decade. The medium of instruction shall be either the approved provincial language, the national language, or English. Special measures will be adopted for improving the quality of education. For this transitory period, the minimum norm will be a 2 room Primary School with 5 teachers. Privatization of primary education will be encouraged but regulated through stringent controls.

3.3 STRATEGY

3.3.1 Teachers and physical facilities

3.3.1.1 1.7 million new primary school teachers will be trained and recruited. 95,000 new schools including Mosque Schools and one room each will be added to 20,000 one room schools.

3.3.1.2 As far as possible, female teachers will be recruited for primary schools.

3.3.1.3 The upper age limit for appointment as primary teachers will be relaxed.

3.3.1.4 All types of human resource will be utilized for teaching at primary level e.g. retired and unemployed educated persons.

3.3.1.5 The salary structure and service conditions of PTC teachers will be improved.

3.3.1.6 The remuneration of Moallima' of Mohallah School and of Imam in the mosque school will be revised.

? 3.3.1.7 There will be no difference in the allowance of teachers serving in rural or urban areas

? 3.3.1.8 The salary of the primary teachers who improves his qualification will be linked with his qualifications

3.3.1.9 The primary teachers will receive periodical training for updating their knowledge and teaching methods

3.3.1.10 The NGO's will be encouraged to set up training centres for primary school teachers

3.3.2 Curriculum & Medium of Instruction

3.3.2.1 Primary Curriculum for Classes I-III will be integrated into two books only, one integrating language, Islamiat and Science, and the other dealing with the basic mathematics

? 3.3.2.2 Quran Nazira shall start in Class-I and shall be completed in the terminal year

? 3.3.2.3 The curriculum shall be modified to include concepts which may increase the awareness of the students about the society and the Islamic ethos

3.3.2.4 The medium of instruction shall be either the provincial languages, the National Language or English

3.3.2.5 In the rural areas, the school timings, including vacations, shall be arranged according to the convenience of students, taking into consideration, the cropping pattern

3.3.3 Drop out

3.3.3.1 Depending upon the region, factors contributing to drop out shall be carefully studied and appropriate special inputs will be designed to reduce wastage

- 3.3.3.2 All students will be promoted from class I to class 4 without any annual examination

3.3.3.3 The retention or promotion of the students from class 4 to class 5 will be determined through annual examination at the end of 4 years

3.3.3.4 Wherever feasible, the schools will run in two shifts

✓ 3.3.3.5 The evening shift in such cases will develop into a work oriented lower Secondary technical school, and may also be used for literacy programmes

3.3.4 Women Participation

? 3.3.4.1 In areas where women participation is low, special incentive-based programmes will be created, to enrol them and to retain them in schools

✓ 3.3.4.2 Distance education programmes, for example, women matric, etc, designed by Allama Iqbal Open University will be used for the education of women

3.3.5 Administrative Measures

3.3.5.1 The programme of universal primary education will be carried out through close community participation with village as a unit in rural areas, and Mohallah' in the urban areas in collaboration with elected representative

3.3.5.2 Primary education authorities (Directorate of Primary Education) may be created at Federal and Provincial levels

3.3.6 Quality

3.3.6.1 The training of teachers will include a comprehensive understanding of the new concepts introduced in the curriculum

✓ 3.3.6.2 The Primary Kit will be updated, its guides and work books prepared in Provincial languages, and provided to all schools. The success of the kit will be ensured by training teachers on the activities included in the Kit and their use in the class room. Also separate funds for consumables will be provided to each school

? 3.3.6.3 Special Federal Funds will be provided to improve the facilities which may be used for improving the learning process. This may include, computers, Science Kits, books dealing with general sciences and mathematics

3.3.6.4 The number of teachers in each Primary School will be gradually raised to five over a period of ten years, and, as far as possible, will be recruited locally. A middle pass person may be employed at lower grade

✓ 3.3.7 Fund

3.3.7.1 Universalization of primary education will require massive resources. Thus, primary education will be supported through all possible sources including "Iqra fund" and "Zakat"

3.3.7.2 The funds allocated to primary will be non-transferable and on-lapsable; this will be guaranteed through legislation

CHAPTER - IV

LITERACY

4.1 Background

4.1.1 Pakistan has one of the lowest literacy rates in the region currently estimated at about 30%. The national average according to the 1981 census was 26.2%. It was bad enough but the wide disparities made it even worse. From 57.8% of literacy among the urban male population of Sindh, the average plummeted to 1.75% among the rural females of Baluchistan. In absolute terms, the number of illiterates in the ten plus age group which stood at the daunting figure of around 43 millions, has now shot up to an estimated 50 million or over.

4.1.2 It is recognized on all hands that a poor participation rate of about 50% (1986) at the primary school level, with a high wastage rate estimated at 60%, including drop-outs and repeaters, is the major cause of our low literacy rate. Absence of any successful efforts for adult literacy and the population growth rate of about 3% (among the highest in the world), further aggravate the position.

4.1.3 Consequently all children who are not enrolled and those who drop-out early join the multitude of illiterates every year. Even the neo-literates relapse into illiteracy due to the non-availability of appropriate post-literacy reading materials.

4.1.4 The problem of illiteracy is formidable both in its size as well as in its complexity. From a socio-cultural perspective, the traditional prejudices against educating females still linger, particularly in the tribal and rural milieu. In the economic context, the opportunity cost discourages poor families from sending their children to schools. Non-availability of suitable reading materials, preferably in ones mother tongue, is another difficulty in our multi-lingual situation. Then there is the all important political dimension which also includes the availability of resources.

4.1.5 Even if the target of attaining universal primary education by the end of the next decade is achieved, the existing huge backlog of 50 million people (about 43 million in the productive bracket of 10-44), and an estimated number of 8 to 10 million children who will either fail to get enrolled or will drop-out on the way, before the attainment of UPE and total elimination of wastage, cannot be abandoned to a fate of perpetual illiteracy. The constitution explicitly provides that "the state shall remove illiteracy ... within minimum possible period". The need for an effective literacy policy is therefore clearly indicated.

4.1.6 At present there is no national programme of adult literacy. A number of government and non-government organizations are running programmes for adult literacy and education of various types in different parts of the country. However, the effect of these programmes on general literacy situation in the country is only marginal.

4.2 Policy Statement

4.2.1 A planned effort will be made to increase the literacy rate to 70% by the year 2000. This formidable challenge cannot be met by the government alone. The whole nation needs to be mobilized for launching a campaign against the scourge of illiteracy on a war-footing. The provincial governments, NGOs, and local institutions shall be actively involved both in planning as well as in implementation, the federal agencies assuming the role of coordination, monitoring and evaluation in addition to providing technical support for development of materials and training.

4.2.2 Allocations for adult literacy programmes will be substantially enhanced at the federal and provincial levels. Acquiring literacy is enjoined on all Muslims as a religious duty. Literacy programme shall therefore be supported substantially through the Iqra and Zakat Funds.

4.3 Strategies

4.3.1 Primary education shall be made compulsory (see UPE).

4.3.2 Drop out rates will be drastically reduced (see UPE)

✓ 4.3.3 The literacy programmes shall be implemented through the provincial governments, NGOs and local organizations, with appropriate support from the federal government. NGOs will be encouraged in a massive way through technical material and financial support to undertake literacy programmes on a much larger scale.

4.3.4 An important reservoir of great potential exists in the form of people possessing Quranic literacy but not conversant with reading a text in any Pakistani language. Accordingly to 1981 Census the percentage of people in the ten plus age group who could read the Quran was 38.4, whereas 54 per cent were learning to read. The script of all Pakistani languages is based on the Quranic Naskh and "illiterates" in both these groups can be made literate with a little more effort in much lesser time by introducing the additional letters of alphabet to them. A massive project will be launched to raise the level of literacy in this group, to general literacy.

4.3.5 As far as possible literacy programmes will be integrated with skill-based community development programmes. Simultaneous monitoring and evaluation will be made an essential feature of all literacy programmes to check wastage. Post-literacy phase ~~will be made an integral part of all literacy programmes, and community...~~ libraries for neo-literate will be set up at the Union Council level.

✓ 4.3.6 Universities will be encouraged to play a greater role in training, curriculum and material development, as well as organization of students literacy corps.

4.3.7 Greater attention will be focused on the deprived segments of society in rural areas and urban slums, with special emphasis on female population.

- ✓ 4.3.8 The strategy of achieving 100% literacy in selected areas will be carefully employed to produce the emulative effect. 1
- 4.3.9 Public representative regardless of political affiliation will be motivated to support the literacy effort in their respective constituencies by spear-heading formation of village development committees with literacy as their major concern.
- 4.3.10 The potential of electronic and print media will be fully utilized for motivating the public at large for supporting literacy effort, and delivering the literacy programmes.
- ✓ 4.3.11 Adult literacy classes will be an integral component of the evening shifts in primary schools. The idle spells between various stages of examinations, as well as summer vacations, will be utilized to bolster the literacy effort through student volunteer corps.
- 4.3.12 Appropriate legislation will be enacted by the provincial governments on the pattern of literacy Act 1987, to provide incentives for acquiring literacy.
- 4.3.13 Suitable annual awards will be instituted for meritorious work in the field of adult literacy at the national, provincial and local levels.
- 4.3.14 Appropriate legislation will be enacted to make funds allocated to the promotion of adult literacy non-transferable and on-lapsable.
- ✓ 4.3.15 Directorates of adult education with wings at the divisional and district levels, to provide professional training and guidance as well as monitoring and evaluation, will be established in each province.
- ✓ 4.3.16 The NETCOM shall be the main coordinating agency for adult education and literacy programmes, with functional arms at the provincial levels. Considering the vital importance of training,

a National Institute of Training and Research for Literacy will be established under the NETCOM to service all organizations/agencies engaged in literacy work.

4.3.17 An Action Plan to implement the strategies set out above will be developed by the NETCOM with the active participation of Universities, particularly AIOU, NGOs, provincial government departments and Federal Ministries in the social sector.

QUALITY OF PUBLIC INSTRUCTION1 5.1 Background

5.1.1 There is general agreement that the quality of instruction has deteriorated rapidly. This is particularly so in sciences and mathematics and the use of languages. It has been suggested that quality aspect has been compromised because of expansion of educational institutions. The system has not responded to a large number of inputs made for raising the quality of public instruction. In higher education, indiscipline has caused havoc with the instructional programme. Inadequate admission standards, poor quality of teachers, unmotivated learners, overcrowded curricula, badly written textbooks, impoverished physical facilities, especially the science laboratories and defective evaluation mechanism have been identified as areas of concern for quality aspects of public instruction. Basically the delivery of school curricula, that is, text books, teacher training and examinations suffer from a number of distortions: For example, the text books do not properly reflect the spirit and intentions of the School Curricula. These are generally of poor quality and contain materials which are unnecessarily repetitive. The language is defective and the presentation of concepts not in accordance with the comprehension level of children. Apart from poor layout and illustration design of science books, the books in social sciences fail to inculcate national cohesion. Also, the teachers are not oriented and trained in accordance with the needs of the curriculum and the examination questions, based mainly on text books, are not in accordance with the curriculum.

5.1.2 In the fields of sciences and mathematics, of the 10,000 science teachers in 6000 high schools, some 3500 are untrained. Similarly, of the 6500 middle science school teachers, only 1000 are trained. School science laboratories either do not exist or are poorly equipped. The condition of rural schools is even poorer. The teacher is not performing the role expected of him.

5.2 Policy statement

5.2.1 Improvement of the quality of public instruction will receive high priority. Major changes will be introduced in curricula, textbooks, teaching methods and evaluation techniques. The training of teachers will emphasize the acquisition of practical skills. The role of the teacher will be redefined. A system of punishment and rewards, for teachers based on performance evaluation shall be introduced. The teaching learning process will be strengthened through various types of inputs.

5.3 Strategy

5.3.1 Curriculum, medium of instruction

5.3.1.1 A major effort to improve the delivery of curriculum shall be initiated

✓ 5.3.1.2 The curricula shall encourage enquiry, creativity and progressive thinking; through project oriented education

✓ 5.3.1.3 Professional base of instructions involved in curriculum development shall be enlarged

5.3.1.4 All vocational curricula shall be related to employment market

5.3.1.5 The linkages between curriculum development text book writing, teacher training and examinations will be reinforced

5.3.1.6 The westage of mathematics and sciences shall be increased; mathematics shall be progressively included as a compulsory subject for all science students at the F.Sc level

5.3.1.7 A special mathematics course shall be introduced for students studying social sciences, and teaching of languages will be improved in order to enhance communication skills. The teaching of social sciences will be improved in content and quality. ~~of~~ ~~science-students~~

5.3.1.8 Islamiyat and Pakistan Studies shall be adjusted to the learning level of students: the distortions removed and unnecessary repetitions avoided

✓ 5.3.1.9 A wide range of vocational subjects relevant to job requirements in the employment market and self-employment shall be introduced and liberal loans will be provided for this purpose

✓ 5.3.1.10 Emerging needs which include environmental education, health education, population education and computer education shall be integrated in relevant subjects

5.3.1.11 Overcrowding and overlapping of concepts in the curricula shall be removed

✓ 5.3.1.12 English may be used as one of the media instruction, in addition to Urdu or a provincial language

✓ 5.3.1.13 At tertiary level, English may be the medium of instruction for science and technical subjects

5.3.2 Textbooks

5.3.2.1 Textbooks shall be revised and updated to incorporate new knowledge

5.3.2.2 Curriculum development and book development shall be coordinated

✓ 5.3.2.3 Workshop technique shall be adopted to develop new books. Concepts involved in the curriculum may be more comprehensively discussed in the textbooks with the use of graded vocabulary based on empirical research

5.3.2.4 Incentives shall be provided to teachers for producing new and attractive learning materials, making use of audio video and print media

✓ 5.3.2.5 For each course, multiple text books will be approved and the institutions will be allowed the choice to select any one of these texts. Private publishers will be encouraged to produce school text books

5.3.3. Teachers

5.3.3.1 A separate unit of Teacher Training shall be set up by each Provincial Education Department and at the Federal level

5.3.3.2 Mobile training units may be set up for on-the-job training

5.3.3.3 Teacher Training Institutions will be equipped, and strengthened, and their faculty will be provided training to update their knowledge and skills

5.3.3.4 A regular in-service training programme will be launched for teachers at all levels. Distance Education methods will be used for in-service training. Techniques and methods of community motivation towards education will be emphasized in training programmes

✓ 5.3.3.5 Deficiency of science, mathematics and languages teachers shall be removed. Also, Special Scholarship Scheme will be started for those holding secondary or higher secondary qualifications in order to attract them to science teaching professions

5.3.3.6 A system of incentives will be created to encourage teachers to undergo in-service training. Special awards will be instituted for inventions and creative work

✓ 5.3.3.7 The Private Sector will be encouraged to set up Teacher Training Institutions and Teachers Resource Centres (Government school teachers to be sent to Private Institutions)

✓ 5.3.4 Physical Facilities

5.3.4.1 Well equipped laboratories for biology, physics and chemistry shall be provided in all schools and colleges, the rural schools and colleges receiving a special treatment. A separate federal fund shall be created for this purpose.

✓ 5.3.4.2. Science laboratories shall be provided in all middle schools

5.3.4.3 Science kits will be developed with emphasis on new and modern experiences, and shall be provided to all middle schools by the Federal Government

✓ 5.3.4.4 Arrangements may be made for computer education at all levels through a phased programme starting with Secondary Schools

5.3.4.5 The College and University laboratories for teaching and research shall be modernized and assistance from the industrial sector will be encouraged.

5.3.4.6 Liberal grants shall be provided for books and journals

5.3.4.7 Substantial grants shall be provided for consumable materials to facilitate practical work

5.3.4.8 Science kits shall also be introduced in classes X to XII

5.3.4.9 Utilization norms of labs and other facilities would be improved

5.3.5 Evaluation

5.3.5.1 A system of continuous internal evaluation culminating in the annual examination will be used to evaluate the performance of students. The certificate awarded to students will include marks obtained in internal evaluation as well as the final examination

5.3.5.2 A National Testing Service will be set up outside the government to standardize national norms and to develop tests for entry into professional institutions and universities, and award of scholarships for higher education etc.

5.3.6 Guidance and Counselling

5.3.6.1 A suitable institutional structure shall be established for the management of guidance and career counselling programmes to be introduced at the school, college and university levels

5.3.7 Discipline

5.3.7.1 Stringent measures shall be taken to prevent the smuggling of arms and weapons into the premises of educational institutions

5.3.7.2 Drug trafficking in educational institutions shall be stopped

5.3.7.3 Disciplinary procedures in educational institutions shall be reformed and simplified to ensure a prompt and effective enforcement of disciplinary measures

5.3.7.4 A system of teachers' accountability shall be developed and enforced to maximize the participation of teachers and students in academic pursuits. The performance evaluation of teachers will be based on reports dealing with teaching (research), guidance and counselling and tutorial work, among others

CHAPTER - VI

6.1 National Testing Service

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6.1.1 Evaluation makes an important link in the teaching learning process. Apart from a week delivery system, the examination system is excessively flawed on account of a variety of malpractices. Neither the semester system, nor the annual system have been able to stand up to the wide spread corruption in examinations. The examiners, the paper setters, the invigilators, and the examination departments, are equal partners in maintaining the vicious circle of corruption around public examinations. Even the Boards of Intermediate and Secondary Education have vied with each other in the award of unjustifiably inflated grades to their students. Also, in their anxiety to bring their wards to professional colleges, the parents have joined the rat race of nefarious practices. This state of affairs has caused two types of damages; (a) lack of confidence in the results of public examinations; and (b) distortion in admission to professional colleges, which are based entirely on the results of public examinations

6.1.2 Implementation of Examination Reforms suggested in various reports have met with little success. While corruption is one of the most salient problems of our examination system vis-a-vis admission in professional colleges and higher level, there are other aspects of examinations which deserve serious attention. The quality of examinations need to be improved, so that it is a true reflection of the various abilities of students. Objectives of education other than the cognitive ones need to be taken into account. The time lag between holding of examinations and declaration of results ought to be reduced.

6.1.3 The policy has attended to the problem with the seriousness it deserves, and propose that efforts should be made to improve the present system of examinations in all respects. It also proposes that for the purposes of admission in colleges, including professional colleges and universities, undue importance attached to the present examinations results should, in part, be surrendered in favour of scientifically validated national tests.

6.1.4 The development of these tests would be extremely useful in another way. Due to establishment of a large number of teaching and examining bodies, the differences in the standards of various Boards and Universities has become a cause of concern. University Grants Commission and Inter Board Committee of Chairman can use these tests to monitor the standards of various universities and boards respectively, and develop a system of accreditation.

6.2 Policy Statement

6.2.1 A National Testing Service will be established for providing national level leadership in developing tests needed in educational settings, and carrying out research for this purpose. The work of test development and research will be carried out by NTS on its own, or in collaboration with agencies and individuals within or outside Pakistan. The NTS would provide tests as well as testing services to schools, colleges, including professional colleges, universities and other institutions. This agency would also be responsible for developing a system of academic accreditation of various institutions on the basis of the performance of students of these institutions on national tests.

6.3 Strategy

6.3.1 National Testing Service will be established at the Federal level as a high level autonomous organizations, with close collaboration with UGC and IBCC

6.3.2 The tests will be developed by NTS in collaboration with national and international agencies

6.3.3. NTS will also organize the administration of tests at various places in Pakistan under suitable supervision

6.3.4 The tests will be administered a number of times during the year, so that a student may take a test at any time he is ready for it

6.3.5 The merit for admission, based on the results of public examination will be prepared as usual. However, each person on the merit list will be required to pass the national test, before the admission is finalised. Failure in national test will make the student ineligible for admission, irrespective of his position on the merit list

6.3.6 The students waiting for the results of examinations shall be eligible for appearing in the National Test and obtaining admission in the next higher class. In case of not passing the public examination, the admission, if granted on the basis of National Test, shall be cancelled

CHAPTER - VII

7.1 Technical and Vocational Education7.1.1 Background

7.1.1.1 Technical and Vocational Education is offered at Pre-vocational, vocational, technical and professional levels. Those who qualify as scientists and engineers make only a minority of the total work force. With the advent of new technological age, the "old skills" may no more be needed. The new worker has to be trained on different types of machines demanding different types of skills.

7.1.1.2 Over the years, increase in the number of technical and vocational institutions has been accompanied by a sizeable growth of technical and vocational, and agrotechnical education in various regions of each province. However, this spread is not in line with the needs of job market. Training of the semi-literate drop outs also remains a problem. New possibilities need to be considered for improving the status and career opportunities of the technicians. Much of our success in making education meaningful, will depend on our ability to expand a demand oriented technical and vocational education, and to reinforce general education with vocational subjects and to attempt towards vocationalization (polytechnicalization) of education.

7.2 Policy Statement

The number of technical and vocational institutions will be increased and facilities for technical and vocational educational will be made available at Tehsil level in accordance with the needs of the area. The Private Sector will be invited to set up technical and vocational institutions and will be provided incentives for this purpose. The status of and career opportunities for technicians will be improved. The curricula will be kept under constant review to ensure that changes in technologies and new emerging technologies are incorporated in the courses of studies.

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A net work of technical teacher training institutes will be established, one in the provinces, and linked with National Teacher Training College at the Federal level. A large number of trade schools will be developed in the rural areas as a part of a general middle and secondary schools in the evening shift. One vocational subject will be a compulsory part of general education. More opportunities will be provided for the technical and vocational education of women.

7.3 Strategy

7.3.1 The existing Polytechnics will be consolidated...

7.3.2 The number of vocational institutes shall be increased, so that one such institute for males is located at Tehsil level and one for females is located at the district level in line with the need of the area

7.3.3 Each district headquarter shall have one polytechnic for males, and each division headquarter shall have a polytechnic for females, depending upon the needs of the area

7.3.4 A net work of colleges of higher technology will offer study programmes leading to Bachelor and Master degree will be established in the country where ever feasible. Some of the existing degree college may be converted to colleges of higher learning and technology

✓ 7.3.5 Industrial training for engineers for engineers and technology graduates shall be regulated by legislation

? 7.3.6 Opportunities shall be provided to polytechnic graduates for higher studies at home and abroad

7.3.7 Linkages shall be established between technical and vocational institutes and industrial units

7.3.8 Production units wherever feasible may be established in selected vocational and technical institutions

7.3.9 Private sector will be encouraged to set up unit for training in private industry

7.3.10 A council of technical vocational education shall be established

7.3.11 Curricula shall be modernized. Facilities for Agro-technical education in general schools shall be improved

✓ 7.3.12 The whole process of vocationalization of education shall be reactivated and new subjects shall be added to increase the employability of the educated youth. Suitable arrangements for testing and certification of the skilled learners would be made

CHAPTER - VIII

Higher Education and Science8.1 Background

3.1.1 Knowledge intensive technologies have made rapid strides in the last few decades. More extensive activities are likely to take place in the pursuit of new knowledge. The type of work force required for acquisition and use of high technologies, places different types of demands on higher education. The further growth of higher education, especially in scientific and technological fields, should be planned. Despite 301 colleges, 22 universities (general: 13, engineering: 4, agriculture: 3, health sciences: 1, management sciences: 1), Area Study Centres and Centres of Excellence in specialized fields, and despite substantial increase in enrolment, the higher education has neither kept pace with recent advances in knowledge, nor has it been able to establish broad base for high level scientific and technological research. The degree level education is hardly sufficient, the university departments are ill-equipped and improperly staffed. New disciplines of science on which future technological advancements are based have yet to be developed in the universities. The added problem of indiscipline has created chaos in study programme. The degree level general education is merely supply oriented. All this calls for re-examination of the priorities within the higher education sector. The professional education: engineering, medicine, agriculture and veterinary, have shown restricted growth in the area of applied research. The University Grants Commission has yet to play a more definite role in raising the standards of teaching, examinations and research; and orientation of University Programmes to national needs. With this state of affairs, unless major new inputs are made, it is difficult to conceive that higher education system will be able either to produce manpower of acceptable quality for jobs in the employment market, or for accelerating the pace of economic activity through generating new knowledge (research). The whole higher education system needs a new kind of treatment, vigorous leadership, strong political will and substantially increased financial input, a major chunk of which must be generated by the universities themselves.

8.2 Policy Statement

8.2.1 A liberal, free, democratic and competitive university culture, leavened with Islamic values will be promoted. Participation rates of higher education will be enhanced. The performance of higher education will be improved through increased inputs in graduate study programmes and research. Higher education which is presently supply oriented will be made demand oriented. Universities will be encouraged to generate funds by various means and will be provided sizeable endowment, to enable them to move towards financial self sufficiency and financial autonomy. Participation of teachers at the international conferences will be facilitated. Measures will be taken to make the university administration and management more efficient and university Acts will be revised accordingly. Science and technology sector and higher education will collaborate for developing and implementing a common plan for advancement of research. The private sector will be encouraged to establish institutions of higher education. Universities will be made to develop close linkages with community and undertake the study of their problems. Degree level education will be restructured and diversified. Degree level colleges will be made more autonomous and the feasibility of setting up a separate funding council for colleges in each province will be considered. To monitor academic standards, all higher education institutions will be subjected to a cycle of accreditation and validation. The performance of Area Study Centres, Pakistan Study Centres and Centres of Excellence will be reviewed, and new centres of advanced studies in modern disciplines of science and technology will be established.

8.3 Strategy

8.3.1 Science and engineering laboratories in universities and colleges shall be strengthened, through increased inputs of modern sophisticated equipment, and manpower trained in modern disciplines of science and technology.

- 8.3.2. More liberal grants shall be provided for books and journals.
- 8.3.3. Information retrieval centres shall be established in all the universities linked with the UGC
- ✓ 8.3.4 Special funds shall be allocated for research
- 8.3.5 Many university departments shall be raised to centre of advanced studies in new disciplines
- 8.3.6 Linkages of good university departments with international institutions will be established
- 8.3.7 The performance of area study centres and centres of excellence shall be reviewed and new inputs will be provided where needed.
- 8.3.8 Centres of research on problems related with community development will be established in the universities
- 8.3.9 The restriction of NOC will be lifted for participation of teachers in international conferences
- 8.3.10 More funds shall be allocated for supporting the participation of university researchers in international conferences
- 8.3.11 Liberal funds shall be provided for holding national... or international seminars , conferences, and workshops in important disciplines of social sciences, natural sciences, and technology
- 8.3.12 Professional associations in various disciplines shall be encouraged and given substantial financial support for holding professional conferences and for publication of research journals
- 8.3.13 Those researchers who generate information and processes for the development of new technology, shall be appropriately rewarded

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8.3.14 A national library of science and technology will be developed as a part of the ongoing project of the Institute of Science and Technology of Pakistan (ISATOP)

8.3.15 Provinces will be encouraged to set up similar high technology institute

✓ 8.3.16 Sizeable endowments will be progressively provided to the universities to enable them to achieve financial sufficiency and financial autonomy

8.3.17 Competitive grants will be provided to research institutions doing high quality basic and applied research

8.3.18 The University Acts shall be revised and appropriate changes shall be made to ensure efficient management of the universities

8.3.19 The research fund placed at the disposal of the National Scientific Research and Development Board by the Government shall be gainfully used for promoting research related to economic development of the country

✓ 8.3.20 All curricula will be modernized in order to accommodate new knowledge and new disciplines

8.3.21 The Act of the UGC will be amended to facilitate its role in raising the academic standards in institutions of higher education,, and in management of universities

8.3.22 University teachers doing research and producing M.phil and Ph.D. students will be granted research allowance

8.3.23 A package of incentives to university teachers in the form of better salaries through contract appointment, research grants and autonomy in their work will be instituted

8.3.24 The teachers shall be subjected to a strict regimen of accountability through performance evaluation, on the basis of which rewards and punishment will be awarded and which will be carried out by Review Boards established for the purpose

✓ 8.3.25 The degree level education will be restructured and diversified. The diversification will be aimed at introducing such courses in a three years honour's degree programme which may enhance employability of students

✓ 8.3.26 A separate Funding Council for Colleges may be set up in each province

8.3.27 Provincial Councils of Academics Awards and Validation may be set up in each province for colleges working under autonomous management Boards.

9.1 Campus Violence 1

9.1.1 Much of the erosion of our educational standards in recent years has been attributed to excessive use of violence on the campuses. Free traffic of arms and ammunition on the campuses and their indiscriminate use by rival groups of students have created difficulties; the solution of which has gone beyond the scope of lawful authorities in colleges and universities. Anti-authority attitude, little respect for teachers, politicization of student, off campus abettment of students by the vested interest, non recognition of the effective role which the silent majority of students can play on the campus, inadequacy of law enforcing mechanisms, ineffectiveness of Discipline Committees, apathy and aloofness of teachers, cheating in examination, soft and even benign attitude the Government towards politically aligned, violent groups of students, overcrowding of class rooms, lack of seriousness in imparting instructions, lack of diversification in channelling the energies of students, for example in sports and co-curricular activities, are some of the factors which have corrupted the higher educational system. Killing of students by students, and threats to members of university bodies for extracting decisions of their choice are example of those acts of violence which have, by and large, reduced the educational institutions to shambles. These trends need to be reversed with the clear objective of promoting a campus culture sympathetic to easy academic growth in an environment of peace, devotion, hardwork, creativity and common nationhood. The policy having recognised these trends proposes to eradicate this evil on the campuses, through new strategy initiatives and implementation programme.

9.2 Policy Statement

9.2.1. 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 counselling. Special attention will be paid to the improvement of corporate life on the campus.

9.3 Strategy

9.3.1 A dean of students affairs will 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.

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

9.3.3 Placement services will be established on each campus for providing information and guidance on job opportunities and carrer planning.

9.3.4 A code of conduct will be enforced to regulate the corporate life of students on the campus. Carrying of arms and amunition of any type within the premises of the campus will be banned and dealt with as a penal offence. Some teachers and administrators will be given magesterial powers.

9.3.5 Campus Security force will be established at each campus.

9.3.6 No outsider will be allowed to stay in hostels. No arms or amunition will be allowed on the campus. Full user charges will be realised for hostel residents.

✓ 9.3.7 Students' groups as political organizations will not be allowed to operate on the campuses.

9.3.8 Teachers will be vested with powers to deal with acts of hoolignaism and impose penalties on culprits without recourse to the discipline committee.

9.3.9 Overcrowding in the class rooms will be dealt with appropriately.

9.3.10 Such student clubs which could enhance academic excellence, sharpen intellectual activities and promote creatively will be encouraged.

9.3.11 The laws relating to penalization of students on account of hoolignaism, keeping, or use of fire arms, insulting the authorities or teachers, intimidating the members of university bodies, use of university property without authority and cheating in examination, will be made more stringent, effective and binding.

✓ 9.3.12 Sports facilities will be expanded and students will be encourages to participate in sports and games.

✓ 9.3.13 All students will be assigned community work during summer vacation.

✓ 9.3.14 Parents and alumni associations will be organized on each campus for seeking periodical advice about maintaining discipline on the campus.

✓ 9.3.15 Vice-Chancellor will be vested with full authority to expell a student if he is not satisfied with the conduct and behaviour of the student. No appeal will lie against the decision of the Vice-Chancellor.

9.3.16 Democratic norms, tolerance, coexistence, mutual help, and national outlook will be promoted through intercampus and intra-campus seminars and lectures.

✓ 9.3.17 All such concessions which weaken the academic programmes will be withdrawn.

✓ 9.3.18 The rule of 80% attendance of classes will be strictly enforced.

Student Welfare10.1 Background

10.1.1 Learner is an active participant in the teaching learning process. Much of the activities of the educational institutions are built around the student. As he joins the institution, he is nurtured and groomed by his contact with the teacher and ultimately leaves the alma mater as an enriched, enlightened and a valuable human resource. Not all students get equal opportunity to rise on the ladder of education. In a stratified society, social class and economic handicap, by a large, determine the occupational destiny of a student. In a system which attempts to provide equal opportunity and equal access to education, merit and ability are supported by liberal grants in the form of scholarships, freships, and fellowships. Additionally, within the educational institutions the learner, apart from academic opportunity and scholarly pursuits, is enabled to develop leadership qualities in a number of extra-curricula areas. A student is progressively moulded into a cast, after which he joins the society in a life-long earning pursuit. Traditionally, the state, and the institution on behalf of the state, have a responsibility to look after the welfare of students. The transport of students to and from the institution, their stay in hostels, the scholarships or tuition free concessions they receive, the places for their recreation, the cafeterias offering subsidized food, and their health care, are the usual welfare norms adopted by the institutions. The progress made in this regard is substantial, yet, in a number of areas, neither the welfare tasks are standardized, nor do they fulfil the real needs of students. Apparently, in many institutions, inadequacies emerge as irritants. Unfortunately, neither the students' guidance and counselling nor the student welfare programmes are institutionalized. A number of new initiatives are therefore needed for improving the students' welfare programmes in educational institutions.

10.2 Policy Statement

10.2.1 The welfare of students will be given the priority it deserves. Financial inputs will be made into educational institutions for improving the facilities needed for the welfare of students. Liberal scholarships will be provided for indigent students, especially, those from the rural areas, enabling them to remain in the educational stream according to their abilities and intellectual development. Educational institutions will be democratized, to enable the students to develop leadership qualities, and work for facilitating the growth of their personalities. Ample opportunities will be provided to able and outstanding students for advanced studies within Pakistan and abroad. Arrangements will be made for guidance and counselling of students, for looking after their welfare and for the promotion of their recreational activities. In sports activities, and other extra-curricula activities, inter-institutional exchange of students will be promoted. Hostel places will be further increased. Teachers will be made to spend more time with students outside the class for removing the academic difficulties of students. Students will be encouraged to promote and develop a healthy, disciplined, atmosphere in educational institutions.

10.3 Strategy

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10.3.1 Standard facilities for transport, health care, cafeteria, recreation, games, sports, debates, cultural shows and exhibition of arts and sciences among others will be created in colleges and universities.

✓
10.3.2 The number of indigent merit scholarships shall be substantially increased.

10.3.3 Talent farming scholarships, and scholarships for advanced studies shall be widely distributed

10.3.4 Special Scholarship programmes shall be initiated for students from rural areas.

- 10.3.5 Students shall be supported for participation in international youth programmes
- ✓ 10.3.6 Literary and scientific societies organized by students in various disciplines, shall be funded through matching grants.
- ✓ 10.3.7 Grants-in-aid shall also be provided for literary and scientific magazines of students.
- 10.3.8 Special funds shall be provided for frequent inter-provincial exchange of students.
- ✓ 10.3.9 Compulsory tutorial system shall be introduced.
- ✓ 10.3.10 The union activities shall be regulated in a free and democratic manner.
- ✓ 10.3.11 Guidance, counselling and placement services shall be provided in the institutions.
- 10.3.12 Condition of residence halls will be considerably improved.
- 10.3.13 Youth hostels will be established at important locations in the country.

1 11.1 National Service

11.1.1 One of the purposes of education is to prepare a student for responsible life in society. In a developing country, where poverty is wide spread, and problems of health, clean living and societal uplift assume large proportions, it is necessary that the educated members of the society, not only realise these problems, but also participate in a systematic manner for the eradication of these problems. Our education system, contrary to the teachings of Islam, is not geared to impart training of the type which could make him realise these problems, or enable him to participate in the process of positive societal growth. In their present form and set up, our educational institutions are quarantined from the communities around. The present system of training the higher secondary students under the NCC is available only to a limited number of students concentrated in the cities. A vast population of students living in the villages remains unattended. Also, the whole process is of limited use for girls. There are therefore obvious reasons that the whole range of students from the secondary to university level are exposed to community problem, and community service in periods of time when they are a comparatively free from their academic pursuits.

11.1.2 The community service can take several forms depending upon the locale of the community. The present policy therefore proposes to institutionalize the process of community service and suggests that students, apart from the academic preparation, may be compulsorily involved in a variety of tasks for the improvement and betterment of local communities. The compulsory community service may be rewarded with the same volume of marks and the advantage thereof which is granted for the NCC.

11.2 Policy statement

11.2.1 Rendering of compulsory "Community Service" by each student will be made a part of curriculum at each level of education. Compulsory community service will be enforced through Provincial and Federal legislation. The process will be institutionalized so as to break the barrier between the communities and educational institutions, and to enable the students to perform various tasks leading to the uplift of the community. The universities will be called upon to play a major role in solving the problems of the communities.

11.3 Strategy

11.3.1 ✓ Each university will set up a Community Development Centre which will prepare plans;

11.3.1.1 for identifying the problems of the community;

11.3.1.2 for interaction between the university and community;

11.3.1.3 for projectising the problems and seeking assistance from the academic community for their solution;

11.3.1.4 for assigning students individually or in groups from the colleges, and the universities, to community service.

11.3.2 The community development centre of the university will organize a network of community development cells in the colleges under the control of the university.

✓ 42
11.3.3 The schools shall organize similar community service programmes with help and assistance from community development cells or the community development centre.

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11.3.4 The identification of social service tasks, the period to be spent on community service, the satisfactory completion of the service and the incentives to be given will be prescribed by universities through regulations.

12.2 Media in Education

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12.1.1 The clientele for education, spread far and wide in the cities, in the rural areas, the mountains and the desert, with all its varying needs and demands for education is growing at a very fast rate. By any standards, the costs of education through formal methods would be too high to be met from the education budget. Moreover the effect of media on attitudes, aspirations, value system is on the increase. The role of media in informal education of the masses has also to be recognized.

12.1.2 Both in terms of costs as well as management, it should be difficult for formal education system to reach the entire clientele of education and to provide relevant education in terms of their varying needs. The electronic media has the flexibility and the out reach to provide education to the masses and to the school age population. The Government is planning a second channel for T.V. which would mainly address itself to education. This offers an excellent opportunity to take education to the door steps of its clients particularly rural females and other deprived population groups in the far flung areas.

12.2 Policy statement

12.2.1 The media would be used extensively to provide relevant education to various population groups, namely; school age children, out of school youth and adults, rural females, teachers, educated unemployed youth acquiring employable skills etc.

12.2.2 A second channel will be started on Television mainly for educational purposes.

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12.3 Strategy

12.3.1 The electronic media input would form a part of a systematic multi-media approach including print materials;

12.3.2 Appropriate commitment in the policies of PBC and PTV giving necessary weightage and time to the production and transmission of the education broadcast would be obtained.

✓ 12.3.3 In the field of informal learning, more attention would be paid to the effective inclusion of educational-messages in the general programmes.

✓ 12.3.4 The media would be used to provide per-service and continuous in-service training to teachers at various levels. Radio/Television would be used to provide literacy and functional educational programmes, to rural females and other categories of adult learners.

✓ 12.3.5 Special programme for science, based on the school curricula, would be telecast for school age children.

12.3.6 Suitable arrangements at the receiving end e.g. provision of Radio/T.V., its availability to viewers, its proper maintenance etc. would be made.

✓ 12.3.7 A combination of broadcasts and cassettes related to the teaching of science, medicine and technology at the tertiary level, including (a) Video cassettes of the best tertiary teaching talents especially in science subjects, for distribution among universities and colleges, (b) late-night broadcast lectures of eminent professors in identified and selected subject areas and (c) special enrichment programmes broadcast on new scientific disciplines not yet generally included in university syllabuses, such as genetic engineering, superconductivity, fiber-glass optics, ceramic engineering, particularly catering for advanced students, as well as educationists, planners, and decision makers, and the educated general public will be made easily accessible to learners.

FUNDING AND RESOURCE GENERATION

7

13.1 Background

13.1.1 In resource allocation, education has not received the priority it deserved. As a percentage of budget, the allocations have ranged between 4.8 and 7.6%. As a percentage of GNP it stayed at 2.17% as in 1989. This makes Pakistan the second lowest among 28 countries of Asia and Pacific. The UNESCO recommend 20% of the budget or 4.4% of GNP for a developing Asian country. The Iqra surcharge of 5% has been levied since 1985. The annual receipt on this account has varied between 5.0 to 10.00 billion. However, the Fund formally remains to be created as a separate entity for educational expenditure. The return from users of education is no more than 5% at the secondary level and 1.5% at the higher secondary and university levels. For a long period, the share of private sector in financing education has remained minimal. It is mostly an urban phenomenon, conspicuous by its absence in rural areas. Besides, there have always been shortfalls in the amounts allocated to education and the amounts actually made available as in the case of Fifth and Sixth Plans. The procedures for the release of funds are cumbersome. The short fall in local resource is supplemented through foreign assistance. The utilization of foreign assistance has not always been compatible with National priorities. Massive financial inputs are needed if the tasks of UPE, expansion of technical and vocational education, the improvement of quality of public instruction, equalization of educational opportunity, and advancing scientific and technological research in the universities are to be completed.

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13.2 Policy statement

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Education will be considered as the highest national priority. Allocation of funds for education will be increased substantially rising progressively to 4.5% of GNP. Reforms will be introduced in the procedure for allocation and release of funds. Volume of funds for scientific and technological research in the universities shall be increased. The fee structure and other user charges will be rationalized. The institutions of higher education will be encouraged to generate additional resources through their own efforts. Incentives will be provided to the private sector to promote their participation in educational development. However, the affairs of the private institutions shall be appropriately regulated. Foreign assistance shall be used only for those projects which conform to national priorities.

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13.3.1 Public Sector

✓ 13.3.1.1 A minimum financial allocation of 3.5% of GNP shall be made for education in 1991-1992 escalating to 4.5% by 1993-1994.

13.3.1.2 The allocation shall be non-lapseable, exempted from way ward financial cuts, and placed in the Personal Ledger Account.

13.3.1.3 The allocation shall be fully protected by a specific provision in the Finance Act.

13.3.1.4 The release procedure shall be simplified. The budgeted amounts shall be released expeditiously so as to ensure its utilization during the year. The authority to reappropriate funds shall be delegated to the Principal Accounting Officers.

- ✓ 13.3.1.5 A separate provision of 5% for research shall be provided in the budget allocation of the universities will not be reappropriated for any other purpose.
- ✓ 13.3.1.6 A ratio of 60:40 between salaries and non salaries shall be built into the budget allocation of the universities.
- ✓ 13.3.1.7 Except for unavoidable circumstances. M.Phil and Ph.D studies shall be pursued within the country.
- 13.3.1.8 Import of educational materials shall be exempted from all types of taxes.
- 13.3.1.9 Progress of the projects in terms of implementation of the Objectives of the project will be regularly monitored. Each project will be evaluated professionally before committing it to the recurring side.
- 13.3.2 Resource Generation
- 13.3.2.1 The scope of Financial levy for the Education of workers children will be extended and the receipts on account of the Act already in vogue will be fully utilized.
- 13.3.2.2 Local Governments will take steps to generate resources exclusively for educational development in the area.
- 13.3.2.3 Fee structure and user charges at the secondary, and post-secondary levels shall be revised and rationalized.
- 13.3.2.4 Institutions of higher learning shall be specially encouraged to raise funds through improved use of their assets.
- 13.3.2.5 Portions of Ushar and Zakat accumulations shall be used for educational purposes.

✓ 13.3.2.6 In urban areas double shift shall be introduced in pre-university level institutions.

✓ 13.3.2.7 In rural areas primary and secondary schools shall be used for literacy and skill training programmes.

13.3.2.8 Iqra surcharge will be an additionality and will be appropriately utilized for special Educational Development Programmes of the Government. It will be exclusively used for educational purposes.

13.3.3 Private Sector

✓ 13.3.3.1 A reasonable Tax rebate shall be granted on the expenditure incurred on the setting up of educational facilities by the Private Sector.

13.3.3.2 Grants-in-aid for specific purposes shall be provided to private institutions; setting up of Private technical institutions shall be encouraged.

✓ 13.3.3.3 Matching grants shall be provided for setting up educational institutions by the private sector in the rural areas or poor urban areas and for this purpose Education Foundations will be set up in each Province.

13.3.3.4 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.

13.3.3.5 Liberal Loan facility will be provided to Private Educational Institutions by financial institutions.

13.3.4 Foreign Assistance

13.3.4.1 Foreign assistance shall be used only for projects which conform to national priorities in education; an efficient utilization of the Aid shall be ensured.

EDUCATION INDUSTRY

14.1 Background

14.1.1 Educational process depends on a number of inputs. These include, buildings, furniture, playgrounds, laboratories, laboratory equipment and teaching aids. The process is best facilitated if the educational materials are indigenously produced. Only a limited progress has been made on this front... On the equipment side, the National Education Equipment Centre launched the primary education kit several years ago. It is now in the process of developing science kit for classes VI-VIII. The centre has also produced prototypes of a number of higher secondary level science equipment. Almost all equipment for higher education is imported from abroad. The technical know-how for maintenance of sophisticated equipment is negligible. There is no industrial unit in the country for the production of laboratory glassware and science equipment. Also, the industrial base for production of chemicals used in teaching and research is non-existent. Teaching aids like overhead projector, slide projector, charts and models are frequently imported from foreign countries. The process of science education in particular is stalled because of the prohibitive costs of imported materials. It is time that measures are taken to promote the development of education industry in the country. Availability of indigenously produced educational materials will lessen the cost of investment on education.

14.2 Policy statement

Arrangements will be made for encouraging the development of education industry, especially the school level equipment, chemicals and glassware, learning materials, models, charts, educational toys, and laboratory furniture, in the private sector. Funds shall be provided for developing prototypes of equipment, educational toys, educational kits and plastic models and charts. The know-how developed after appropriate research will be passed on to the private entrepreneur. Modern

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technology will be acquired for the production of sophisticated parts of scientific equipment. Special funds will be allotted for research and development of science equipment.

14.3 Strategy

✓ 14.3.1 The National Education Equipment Centre shall be further strengthened to undertake R & D, on equipment development in accordance with the needs of secondary school curricula.

14.3.2 The centre shall maintain a technology transfer cell for passing on information to the private sector and enabling the private sector to set up industrial units for equipment production.

14.3.3 The equipment industry shall be given protection by banning the import of all those equipment, kits, which are produced locally.

14.3.4 The National Educational Equipment Centre shall immediately undertake the preparation and testing of science kits for middle schools.

14.3.5 Setting up of education industry in the private sector shall be placed on high priority for the purpose of loans from financial institutions.

14.3.5 The NEEC shall be linked with advanced equipment production units in foreign countries.

14.3.6 The NEEC personnel shall be sent abroad for training in equipment engineering, plastic modelling, glassware production, laboratory furniture production, and development of educational toys.

14.3.7 Institute for the promotion of science education and teachers shall provide the professional back up for the types of equipment needed, and for the testing of the equipment produced.

ADMINISTRATION AND MANAGEMENT OF EDUCATION**15.1 Background**

15.1.1 Many of our failures in the past have been less due to resource scarcity than to the administrative and managerial inadequacies. The management of education requires a special type of professional expertise. Not many of our educational managers are trained in this art. Furthermore, the administrative norms which have developed are highly centralized, and there is little, if any, participation of the community in the management of educational institutions at the local level. Till recently, the training of educational administration was only a casual process. The establishment of the Academy of Educational Planning and Management, now provides the institutional framework for the training of administrators from all levels of education. There is not much that can be done with regard to the whole hierarchy of existing educational administrators, yet, there are possibilities for imparting training to educational managers in key position. This area needs major breakthrough, if the policy implementation is to lead to improvement of the educational process.

15.2 Policy statement

15.2.1 The management and administrative skills of the educational personnel will be improved through imparting professional training in technique and methods of educational administration. The process of decision making will be decentralized. Educational Development Plans shall be effectively coordinated and monitored. Management of district level education will be improved by associating the local community. The Academy of Educational Planning and Management will be further strengthened to enable it to expand its training programmes and extend it to the provinces.

15.3 Strategy

✓ 15.3.1 Separate Directorate of Primary Education shall be established

✓ 15.3.2 School Management Committees shall be constituted at the village, settlement and institution level

15.3.3 There shall be a Headmaster appointed in a higher grade in each primary school who will be required to teach in addition to supervising work

✓ 15.3.4 No more than 15 schools shall be allocated to each Supervisor. The mobility of the supervisory staff will be enhanced

15.3.5 The number of Directorates of Technical Education may be increased

15.3.6 A system of accountability and rewards, based on performance evaluation of teachers and heads of institutions, will be developed

15.3.7 Directorates of Colleges may be established at the Divisional level in each Province

15.3.8 Existing education code will be revised in order to provide more financial and administrative powers to the heads of institutions and Directors. In case of higher education power will be decentralized to the level of Deans, Chairman and Directors

15.3.9 Code of ethics for teachers and administrators shall be developed and strictly followed

15.3.10 Financial rules shall be revised, and effective and simple procedures shall be revised for expenditure under different heads of account

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✓ 15.3.11 All supervisors, Headmasters and Principals, shall receive training in techniques and methods of educational administration and on financial rules before appointment

5.3.12 A manual describing the principles of educational administration and financial management shall be prepared

5.3.13 Training programmes shall emphasize management skills through the principle of management by objective

✓ 5.3.14 Administrative posts shall invariably be filled with those who are professionally qualified

15.3.15 The District Education Officer shall be delegated appropriate financial, administrative and personnel management powers

✓ 15.3.16 The provincial governments may establish Academies of Educational Planning and Management

16.1 Education Cadre

16.1.1 Pakistan is building up a vast reservoir of knowledge and expertise in educational institution. However, these highly talented individuals neither receive the social status they deserve, nor do they get ample opportunities of career enhancement to high positions in administration. In the present state, whereas high quality manpowe is available in the universities and colleges, there are few avenues to utilize their expertise in Government organizations. Many of our universities and college teachers reach a moribund situation with no further chances of career enhancement. This paradox is depriving the Government of enlightened input and at the same time breeding dissatisfactions amongst the able and qualified teachers. The present policy recognizing the importance of utilizing the knowledge and expertise of university and college teachers, proposes to set up an "education cadre" which may serve as a pool and from which able and talented persons may be drawn for appointment to high positions in Education and non-education Government departments and autonomous organizations.

16.2 Policy statement

16.2.1 An "education cadre" of highly qualified and talented Educationists will be set up, the members of which will enjoy ~~the same prestige and privilege as any other cadre in any service.~~ Henceforth all top positions in education departments and relevant autonomous and semi-autonomous organizations will be manned by the members of the education cadre. The expertise of the members of the cadre will also be used for senior positions in other Government departments.

16.3

Strategy

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✓ 16.3.1 Provincial and Federal education cadres will be constituted through appropriate legislations.

✓ 16.3.2 Only teachers from educational institutions will be included in the cadre, through a procedure to be laid down by a Provincial Government or the Federal Government as the case may be.

✓ 16.3.3 The strength of the cadre will be determined after detailed exercise to be undertaken in each Province.

✓ 16.3.4 An equitable opportunity will be provided to the members of the education cadre for appointments in senior positions in the Governemnt.

16.3.5 A procedure will be set up for promotion of members to the highest grade while remaining in the cadre, and irrespective of their movement from the position they occupy in an educational institution. The grades as may be awarded shall carry all perquisites available to Government employees in the Provincial or Federal secretariats.

MANPOWER PLANNING AND EDUCATION17.1 Background

17.1.1 Notwithstanding the general benefits of education, the gainful employment of educated manpower is an important aspect of the overall development of the society. The type of general education imparted to the bulk of our youth is not suitable for the job market. Nor would it be helpful in future, because of the changing pattern of economic activity. For this reason, changes in curricula which could make them compatible with market needs is an essential part of educational development. More so, the production of manpower should be related with appropriate manpower forecasting, i.e. the type of work force required, and the type and level of skills in which proficiency is to be achieved. This process has so far not been institutionalized. In general, it should be the aim of education, to enable the youth to earn an honourable living for themselves and also contribute to the overall development of the country. For the growth and grooming of manpower, in the given socio-economic context for achieving a rational balance between the future requirements and supply, an institutionalized framework has to be set-up.

17.1.2 Existing data indicate an open unemployment of 4% (903000). ~~Half of these are illiterate.~~ The remaining half... are literate, below matric (144000), above matric but less than Degree (64000), and Degree plus post-graduate (35000). The ratio of unemployment is more in the rural areas than in the urban areas. In view of the present trend of education, the unemployment is likely to rise to 300,000. In the absence of any reliable data on manpower forecasting, and the development of job market, it is essential that education is oriented towards the employability of the youth.

Such changes will be introduced in education that will enable the young to earn an honourable living for themselves, and contribute to the development of the country. Through change in the curricula, school education will be further vocationalized with such disciplines, as could improve skill acquisition of the work force according to market needs. Semi-literate and school dropouts will be given the opportunity of upgrading their skills through upgrading literacy level in the non-formal sector. New inputs will be made to expand the facilities of technical and vocational education, and to prepare work force for high technology areas. More attention will be paid to vocational education of the rural youth. Manpower planning and manpower forecasting will be institutionalized.

17.3 Strategy

17.3.1 ✓ Facilities inclusive of loans, shall be provided to enable trained persons to start small business.

17.3.2 Central vocational training facilities shall be provided for a group of schools in the urban areas.

17.3.3 In the rural areas, mobile training workshops shall be established.

17.3.4 Vocationalization of secondary education shall take the form of accelerated practical training for entry of dropouts into the labour market.

17.3.5 Vocationalization of secondary education shall go beyond the traditional industrial occupation and include the fields of social services, medicine, computers, tissue culture, laser technology etc., to prepare manpower for high technology generation and transfer.

7 17.3.6 Social sciences and linguistics shall receive due emphasis, since for the next decade and early 21st century, employability in these areas will increase both in private and public sectors

✓ 17.3.7 The new occupations in the modern sectors of urban areas, and non-farm occupations in rural areas shall be identified and developed from the point of view of providing gainful employment to women

✓ 17.3.8 More technical and trade level courses shall be introduced in urban areas to enable the women to pursue modern trades and technologies

17.3.9 Greater emphasis shall be laid on non-formal educational training, in as much wide a range of skills as possible. This will ensure opportunities of developing skills in women without attending highly structured institution based programme. The Technical Boards will make arrangements for offering certification for the same

17.3.10 Existing technical and vocational institutions shall be renovated, non-vocational institutions shall be opened and there shall be at least one such institution for a town of sizeable population

17.3.11 A national network of male and female vocational training centres for imparting middle level skills will be set up to make up for the existing vacuum

17.3.12 Guidance and counselling shall be provided at secondary level to shift a bulk of appropriate clientele to vocational and polytechnic education

17.3.13 Apart from massive in-school and out-of-school vocational training programmes, efforts will also be commissioned to raise a critical array of high level scientists and technologies

17.3.14 The Academy of Educational Planning and Management and the Manpower Institute will work closely together for manpower planning and labour market forecasting

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Targets for Elementary Education

At present (1990) around 8 million children are enrolled in the primary classes of the country representing 47.5 per cent of the age-group (5+ to 9+). The average annual rate of increase in the enrolment over the last three decades has been as under:

1960 to 1970	--	7.5%
1970 to 1980	--	2.9%
1980 to 1990	--	4.2% ✓

By the year 2000 the primary stage enrolment likely to be reached, if the rates of annual increase in enrolment of the recent past (4% p.a.) are allowed to persist, would be as under:

	<u>Enrolment</u> <u>(Thousands)</u>	<u>% age</u> <u>group</u>
Pakistan	11,678	50.2
Punjab	7,126	65.7
Sind	2,659	45.0
NWFP	1,424	40.4
Baluchistan	469	15.8

It has been considered desirable to double the rate of annual increase (to 80%) for the period 1990 to 2000. According to the projections thus made, there will be 17 million students in the primary schools in the year 2000 representing around 73% of the age group. By the year 2000 the province-wise enrolment to be reached would be as under:

<u>Province</u>	<u>Current</u> <u>1990</u>	<u>Projections in 2000...</u>	
		<u>Nos.</u>	<u>% age-group</u>
Pakistan	7889	17,032	73
Punjab	4814	10,393	96
Sind	1796	3,877	66
NWFP	962	2,077	59
Baluchistan	317	684	23

The foregoing projections, made at the average annual rate of 8% increase would require creation of facilities for the following additional enrolments:

	<u>Thousands</u>
Pakistan	9,143
Punjab	5,580
Sind	2,081
NWFP	1,115
Baluchistan	367

By the year 2000, enrolment in classes VI-VIII, likely to be reached if the rates of annual increase in persist, would be as under:

	<u>Enrolment (Thousands)</u>	<u>% age group</u>
Pakistan	3,349	22.7
Punjab	2,058	30.5
Sind	816	23.0
NWFP	397	17.0
Baluchistan	78	3.7

In view of the emphasis by the present government to universalize elementary education, it would be desirable to attain an average annual rate of 10% increase for the decade 1990 to 2000. According to the projections thus made, there will be 5.3 million students in classes VI-VIII in year 2000 representing 37% of the age group (10+ to 12+). By the year 2000, the province-wise enrolment to be reached would be as under:

Enrolment Projections for Classes VI-VIII
(@ 10% p.a.)

Province	Current 1990	(thousands)	
		Projections Nos.	2000 % age-group
Pakistan	2,056	5,332	37
Punjab	1,263	3,276	48
Sind	501	1,299	37
NWFP	244	633	27
Baluchistan	48	124	7

The foregoing projections made at the average annual rate of 10% increase would require creation of facilities for the following additional enrolments:

	<u>(thousands)</u>
Pakistan	3,276
Punjab	2,013
Sind	798
— NWFP	389
Baluchistan	76

Targets for Secondary Education

At present (1990) around 0.75 million students are enrolled in the high classes forming around 13 per cent of the age-group (13+ to 14+). The average annual rates of increase in the enrolments have been as under:

1960 to 1970	--	--	8.5%
1970 to 1980	--	--	8.5%
1980 to 1990	--	--	5.0%

By the year 2000 the enrolment at secondary stage (classes IX and X) likely to be reached, if the rates of annual increase in enrolment of the recent past (5% p.a.) are allowed to persist, would be as under:

	Enrolment (thousands)	% age group
Pakistan	1,130	16%
Punjab	624	16%
Sind	328	21%
NWFP	136	12%
Baluchistan	42	5%

In view of the emphasis of the present government to substantially expand educational facilities at the elementary level, it would be desirable to attain average annual rate of enrolment increase of 10 per cent per annum at the secondary level for the decade 1990 to 2000. According to the projections thus made, there will be one million students in class IX and X in year 2000 representing around 27% of the age group. By the year 2000 the province-wise enrolment to be reached would be as under:

----- Enrolment Projections for Classes IX & X -----
(@ 10% per annum)

Province	Current 1990	(thousands)	
		Projections - Nos.	2000 % age-group
Pakistan	733	1,901	27
Punjab	441	1,144	31
Sind	196	508	34
NWFP	82	213	12
Baluchistan	14	36	5

The foregoing projections made at the average annual rate of 10% increase would require creation of facilities for the following additional enrolments:

	<u>Thousands</u>
Pakistan	1,168
Punjab	703
Sind.	312
NWFP	131
Baluchistan	22

Targets for Higher Secondary Education

In most cases the higher secondary/intermediate classes (XI and XII) are part of the colleges of arts and science. At present (1990) around 0.3 million students are enrolled in classes XI and XIII (20,000 in Intermediate College, 27,000 in Degree Colleges and 10,000 in Higher Secondary Schools) representing around 8 per cent of the age-group (15+ to 16+). The average annual rate of increase in the enrolment in the recent past has been around 5 per cent. By the year 2000, enrolment in higher secondary/intermediate classes, if the annual rate of increase of 5% per annum of the recent past continues, would be around 580,000, representing 10 per cent of the age-group.

In view of the emphasis of the present government to substantially expand educational facilities, and also because the coverage at the higher secondary stage at present is very low, it would be desirable to attain an average annual rate of enrolment growth of 10% for the decade 1990 to 2000. The enrolment projections made at the rate of increase of 10 per cent annum would give an enrolment of one million students in year 2000, representing 16 per cent of the age-group as detailed in the table:

Province	1990	(thousands)	
		Year 2000	
		① 5% p.a.	② 10% p.a.
Punjab	192	313	547
Sindh	127	209	364
NWFP	33	53	94
Baluchistan	6	10	17
Pakistan	358	585	1022
		Participation Rate*	
Punjab	6.8	8.3	14.4
Sindh	12.3	15.1	26.3
NWFP	5.1	6.1	10.9
Baluchistan	2.4	3.0	5.2
Pakistan	7.6	9.2	16.0

* As per cent of age-group

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Targets for Degree Level Education

In view of the past lag and the emphasis of the present government to substantially expand educational facilities at all levels, it would be desirable to attain an average annual rate of 10% enrolment growth for the decade 1990 to 2000. The projections made at the rate of increase of 10 per cent per annum would give an enrolment of 386,000 students in degree classes in year 2000, representing 3.0 per cent of the age-group 17+ to 21+ as detailed in the table below:

Enrolment Projection of Degree Classes

Province	1990	(thousands)	
		Year 2000	
		@ 5% p.a.	@ 10% p.a.
Pakistan	149	240	386
Punjab	86	139	224
Sind	47	76	121
NWFP	14	22	36
Baluchistan	1.7	2.8	4.6
		Participation Rate*	
Pakistan	1.6	1.9	3.0
Punjab	1.5	1.8	2.9
Sind	2.1	2.5	4.0
NWFP	1.2	1.4	2.4
Baluchistan	0.3	0.4	0.7

* As per cent of age-group

As shown in the table below, college enrolment at degree level is around one fourth of the total. Three fourths of the students are pursuing what elsewhere are considered secondary level studies. This unnecessarily taxes the limited facilities which would have otherwise been available for use by the degree students.

Colleges of Arts and Science Enrolment

Province	Total (thousand)	(1987-88)	
		Female %	Inter-level %
Pakistan	450	29	73
Punjab	246	28	71
Sind	156	37	75
NWFP	41	17	73
Baluchistan	7	24	79

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Women constitute less than one third of the enrolment in Colleges. Their proportion is highest (37%) in Sindh and lowest (17%) in NWFP.

As indicated in the table on the next page, the students pursuing science courses are less than one third of the total enrolment at Inter Level and less than one fourth at the Degree Level. Measures would be adopted to reach a ratio of 50 : 50 in the enrolment of students majoring in sciences and humanities.

**Colleges of Arts and Science Enrolment Distribution
(1987-88)**

Province	Inter Level		Degree Level	
	Humanities	Sciences	Humanities	Sciences
Pakistan	72	28	77	23
Punjab	75	25	76	24
Sindh	70	30	80	20
NWFP	67	33	68	32
Baluchistan	68	32	63	37

As reflected in the table below, the overall teacher-student ratio in the Colleges of Arts and Science in the country is 1:23. In Sindh it is 1:34 while in Baluchistan it is 1:10. It should normally stay around 1:20.

Colleges of Arts and Science Teacher-Student Ratio

Province	Enrolment (Thousands)	Teachers	Student-Teacher Ratio
Pakistan	450	19400	23
Punjab	216	10300	20
Sindh	150	4700	34
NWFP	41	1800	23
Baluchistan	72	700	10

Targets for Postgraduate Education

The university enrolment in Pakistan in 1990 is estimated around 72,750 which is only 68 students per 100,000 population. It is proposed to be raised to 133,500 by 2000 making 92 students per 100,000 population. The province-wise break-up would be as under:

University Enrolment and Population

Province	1990		2000	
	Enrolment	Per lac Population	Enrolment	Per lac Population
Pakistan	72,750	68	133,500	92
Punjab	23,700	40	58,000	79
Sindh	29,000	113	42,000	118
NWFP	11,500	76	17,000	78
Baluchistan	3,000	39	6,000	41
Others	5,500	-	10,500	-

Targets for Professional and Technical Education

The number of students in the professional fields in the country during 1989-90 were as under:

Field	Universities	Colleges	Total
Engineering	17000	14000	31000
Agriculture	8350	1200	9550
Medicine	-	20000	20000
Education	2600	5000	7600
Commerce	6200	9000	15200
Law	4700	8000	12700
Total	87000	89950	176950
	38850	57200	96050

It would be desirable to increase the enrolment in the professional fields at the rate of 8 to 10 per cent per annum. The student population in these fields in the year 2000 would therefore be as under:

Field	Enrolment in year 2000		
	Universities	Colleges	Total
Engineering	39000	21500	60500
Agriculture	15000	4250	19250
Medicine	1000	27200	28200
Education	6000	10000	16000
Commerce	15000	15000	30000
Law	11000	12000	23000
Total	87000	89950	176950

It would thus be necessary to create facilities for 81,000 additional students by the year 2000. The output of graduates in various professional fields would thus increase from 6638 in 1985-86 to about 15000 in 2000.

The province-wise picture of enrolment in the crucial professional fields emerges as under:

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Professional Distribution of Enrolment in Professional
Colleges (Excluding Universities)

Province	Field	Enrolment		Per lac population	
		1990	2000	1990	2000
Pakistan	Engineering	14,000	21,500	13	15
Punjab		6,000	10,000	10	14
Sindh		6,000	8,000	23	22
NWFP		2,000	3,000	13	14
Baluchistan		-	500	-	3
Pakistan	Agricultural	1,200	4,250	1.1	2.9
Punjab		600	2,000	1.0	2.7
Sindh		-	1,000	-	2.8
NWFP		600	1,000	3.9	4.6
Baluchistan		-	250	-	1.7
Pakistan	Medicine	21,200	27,200	20	19
Punjab		12,000	15,000	20	20
Sindh		7,500	9,000	29	25
NWFP		1,000	2,000	7	9
Baluchistan		7000	1,200	13	15

Targets for Technical Education

In quantitative terms, the enrolment, intake the output of Polytechnics and Colleges of Technology are reflected in the table. It would be seen that technical education in Pakistan is practically the domain of men. The female constitute only 6.7 per cent of the total enrolment as well as that of the output.

Technical Education in Pakistan
1988-89

	Sex	Diploma	B.Tech	B.Tech (Hons)	Total
Enrolment	Total	32578	1173	-576	34348
	Male	30281	1173	-597	32051
	Female	2297	-	-	2297
Intake	Total	10658	587	199	11444
	Male	9681	587	199	10467
	Female	977	-	-	312
Out-put	Total	4425	195	50	4670
	Male	4113	195	50	4358
	Female	312	-	-	312

The province-wise enrolment in Polytechnics and Colleges of technology give the following picture:

Enrolment in Polytechnics and Colleges of Technology
Province-wise

Province	Enrolment		Per lac Population	
	1990	2000	1990	2000
Pakistan	23,000	46,000	21	32
Punjab	10,000	20,000	17	27
Sindh	8,000	15,000	31	22
NWFP	4,000	8,000	26	37
Baluchistan	1,000	3,000	13	20

Financial Targets

The government expenditure on education has been growing at varying rates in the past as indicated in the table below:

Year	Govt. expenditure on Education	Average Annual Growth rate % over the decade
1949-50	0.05	--
1959-60	0.16	12.3
1969-70	0.58	13.7
1979-80	4.50	19.6
1989-90*	17.50	17.5

*estimated

The above rates of growth of government expenditure on education are highly deceptive as these are based on current market prices and do not take into account the depreciation of the value of rupee.

The governmental financial support envisaged in the programme being proposed is reflected in the table annexed. The current, capital and total expenditure on education would rise as follows:

Year	Recurrent	Capital	(Billion rupees)	
			Total Amount	% of GNP
1989-90	16.7	4.5	21.2	2.9%
1999-2000	37.2	10.8	48.0	3.7%
Rate of Growth (p.a.)	8.3%	9.1%	8.5%	-

These expenditure projections are in 1989 prices. Any depreciation of rupee value will have to be taken into account. The total government expenditure on education will increase at the rate of 8.5 per cent per annum. From 2.9% of the G.N.P. in 1989-90, it will form 3.7 per cent of the G.N.P. in the year 1999-2000.